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DEPARTMENT OF MANAGEMENT SCIENCE

The Impact of Performance Measurement Systems on Organisational Culture

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Abstract

In the last decade, following the development of the Balanced Scorecard by Kaplan and Norton, organisations raced to implement this and other performance measurement systems, for different reasons but with the ultimate goal of improving business performance. Several studies show that this has resulted in unintended impacts, both positive and negative, in addition to those sought by organisations.

Organisational culture is an encompassing concept; however studies exploring how it is impacted by the introduction of performance measurement systems are scarce. Bititci et al (2004) used Handy's (1978) framework of culture ideologies to demonstrate a change in five organisations; the pre-defined framework allowing a quick and relatively large sample comparison, but at the expense of depth in understanding. The outcomes were encouraging, triggering this research from a different theoretical basis, seeking depth and breadth, studying organisations from multiple perspectives. This research is conducted in the public sector, using a methodological approach that distances the researcher from the case organisation in a quasi-experiment method.

Two government Technical Vocational Secondary Education Schools, managed by the Directorate of Technical Education of Bahrain, were chosen as the case and control organisations for this research. A Balanced Scorecard was developed and deployed in the case school. Prior and post introduction of the Balanced Scorecard a qualitative assessment of culture was conducted on both schools using semi-structured interviews based on Martin's (2002) three cultural perspectives theory. In addition a questionnaire based on Schein's (2004) basic assumptions was developed and administered to all managerial, technical, support and teaching staff in both schools, to enable identification of sub-groupings and to provide triangulation.

The research revealed, qualitatively and quantitatively, that the culture of the school using the Balanced Scorecard strengthened; in essence its main themes becoming both shared and salient among different functional groupings, sections and backgrounds. Moreover, objectivity and pragmatism values were found to be prevalent among most themes.

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1. Introduction

1.1. Research Overview

Performance measurement has become, in the last two decades, a prime concept gaining widespread adoption. Although the debate is still continuing, many organisations and scholars alike strongly believe that organisations using performance measurement systems do better than others.

The literature highlights numerous reasons for organisations striving for performance measures and systems[1]. Among the reasons which will be discussed in detail in chapter two are : refining an organisation's strategic goals, assisting in planning the implementation of strategy, communicating the goals and providing direction, creating a unified language, creating strategic alignment, creating a feedback mechanism, etc. In addition to the benefits sought for introducing PMS in organisations, studies show that there are other impacts. Among the positive impacts observed are:

- Change in employees' assumptions about motivation; from extrinsic rewards to being self-motivated (Robson, 2005),

- Increased top management commitment (Cavalluzzo and Ittner, 2004, Niven, 2003),

- Creation of a unified language understood not only by the management who set the goals and means to achieve them, but also by the employees (Kutucuoglu et al. 2001),

- Improving the accountability of the management of the public departments (Kloot, 1999).

From the objectives of introducing PMS stated above (and in chapter two), one can see all objectives fall into the generic model for strategic management shown in Figure 1. Based on the model, an organisation develops and deploys PMS to monitor progress

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[1] Performance Measures and PM are interchangeably used in this thesis to mean a number of measures used loosely to measure the performance of different areas in the business.

Performance Measurement System and PMS are interchangeably used in this thesis to mean a set of measures integrated to measure the performance of the business as a whole or the performance of a Strategic Business Unit.

towards achieving its strategic goals. In the process of implementing its strategy, the organisation would use performance measures firstly to articulate and communicate what it is trying to achieve to its employees. The employees on the other hand also prefer to see clear goals and know what they will be assessed on; so they work hard to achieve them. Thus, emphasising the slogan 'what gets measured gets done'. The organisation then uses the measurement data to communicate how the organisation is doing, trying to give a sense of direction, and hoping to reinforce the good work if operations are meeting the targets or to redirect it if otherwise. The process of communication, monitoring, providing guidance, and taking actions is an iterative process and would continue as long as there are no major glitches in the contextual or transactional environments surrounding the organisation.
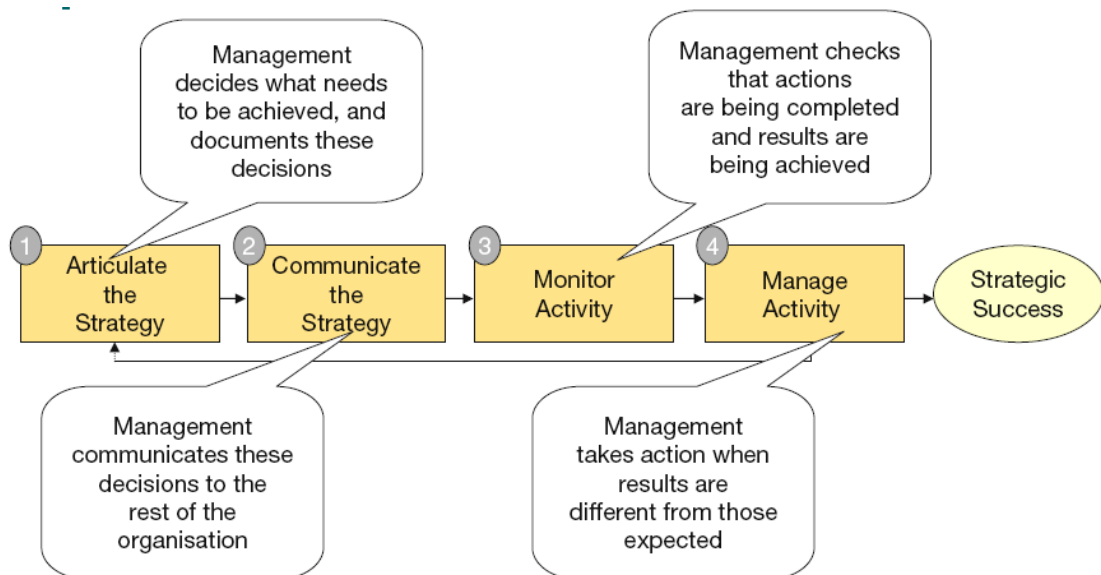
Figure 1: The Strategic Management Model

Source: Lawrie, Performance Management & the 3rd Generation Balanced Scorecard (2004)

Ideally, based on the system theory model and given no errors in the design and implementation of the performance measurement system and no disturbances, the system will achieve its intended results, which is "strategic management". However, errors and disturbances are inevitable. Moreover, the organisations we work in are not purely systematic, but instead mixtures of both system-based and organic (Mead, 1932). Organisations consist of individuals from different backgrounds and different mindsets whose interaction with each other and the system in place creates a set of beliefs and values that governs their daily work. Organisations have cultures and

subcultures that act on and interact with their components and the surrounding environment. From this perspective one can understand the emergence of unintended consequences, such as:

- Gaming against the measure to show that performance is better than the actual one (Neely et al., 2002a)

- Tunnel Vision, which is focusing on what is easily measured (Chwastiak, 2006)

- Sub-optimisation, which happens when a department for example focuses on its part without taking into consideration how it integrates with other departments' goals and operations.

- Measure fixation, which happens when one tries to show one is doing well, but purposefully ignores longer term consequences.

The unintended values were picked up individually in different researches of the impact of performance measures on organisations. They with the intended impacts are classified in the Performance Measurement literature review of this thesis (chapter 2) into Process/Procedural and Value/Behaviour impacts. Processes and procedures are the top level of the Schein (2004) culture model representing the artefacts. Values and Behaviours are the middle level "Espoused beliefs and values". Both of them are part of a bigger concept, which is organisational culture (for more details about Schein's culture definition see section 3.2.3). Researches on the impact of introducing performance measurement systems on organisational culture have been scarce. This scarcity might be attributed to a few different reasons:

1. PMS were only strongly picked up in the late 1990s after the publication of the Kaplan and Norton (1996) book "The strategy Focused Organisation", which in effect led to the following.

2. Researches focused primarily on the individual stages of development and deployment (design, implementation, use, and refresh) including success and failure factors within each stage. Leadership, top management commitment, parent company focus (Bourne and Neely, 2002b, Bourne and Neely, 2002a) in addition to organisational culture were blamed for most PMS introduction

failures as commented on in PMMI-Project (2006) "When the implementation of performance measurement systems in organisations fails it is often blamed on the culture of organisation. Nonetheless, there is a dearth of studies investigating the impact of successful introduction of PMS on organisational culture."

3. Researches interested in cases of development and deployment in different industries.

4. Researches investigating whether or not performance measurement systems have a positive impact on business performance. This shift in research occurred after development and deployment researches reached a reasonable stage.

Bititci et al. (2004) and Bititci et al. (2006) are the first with their pioneer effort to examine the impact of introducing a PMS in five industries from culture as internal variable – corporate culture school of thought (this school of thought is explained in section 3.2). Their research findings were very promising even though other changes went on in the organisations during the implementation and use of the introduced performance measurement system. This in effect encouraged the researcher to embark on investigating the impact of introducing a PMS on organisational culture from a deeper perspective of study of culture – the organisational symbolism school of thought.

1.2. The Dynamics between Performance Measurement System, Organisational Culture and Performance

The discussion as above about the relationship between performance measurement systems and culture is unidirectional. However, in reality it is more complex and dynamic and would link to the ultimate goal of businesses' improved performance. At an abstract level Figure 2 presents a hypothesis of the dynamics between Performance Measurement Systems, Organisational Culture and Improved Performance.

The Impact of Performance Measures on Culture

Performance measurement systems as highlighted previously impact on behaviour "What gets measured gets done". The introduction of a performance measurement

system will be complemented by a series of measures such as facilitation of strategy maps, design of measures and abolishment of redundant ones, collection of data, surveys, management change programmes, management review meetings etc, all of which constitute part of an organisational culture and are considered artefacts in Schein's Culture model (shown as part of Figure 2). The actions and changes taken in introducing and in concretising the use of the measures hypothetically should have an impact on an understanding by staff of how and why things are done in their organisation.

Moreover, performance measurement systems are tools used for different reasons as will be discussed in Chapter 2, and organisations do not normally take a leap in the dark by investing money and time in a performance measurement system (although some might do so by simply following the latest management fads). Instead management or leaders believe in one, a few, or all of the benefits that a performance measurement system could bring to their organisation and hence opt for those. So, these beliefs in the system (espoused beliefs in Figure 2), combined with the guidance that a framework sets, drive the actions that will be taken in designing, implementing, using and updating the system. These actions will, in effect, also trigger the organisation members to question the reasons and hence create their beliefs, group beliefs and subculture, and the culture of the organisation.

From a theoretical point of view, Bititci et al (2004) and Bititci et al (2006) from the corporate culture school of thought claimed that the organisation culture of three organisations out of their five case studies changed from role culture to achievement culture after the introduction of a performance measurement system. Schein, from a deeper level of culture understanding using his model (three layers of culture) interestingly claimed that organisational artefacts (all that can be seen, heard, touched) influence behaviour. These behaviours become, in the mid-term, norms and values and in the long term, basic assumptions (theories in use) that the employees of an organisation live by in their organisation. Performance measurement systems are considered artefacts causing some impact on elements of organisational culture ; they were either practices/processes or values/behaviours of which some are reported in the literature ; Ackermann et al (2005), for example, state that performance measures stimulate discussion to refine the strategic goals and integrate them. Whereas Wisniewski and Dickson (2001) assert performance measurement systems encourage

the planning of the implementation of strategy. Argyris (1991) and Argyris and Schon (1996) stress that discussion of performance data facilitate and provide learning. Kaplan and Norton (1996) assert that the Balanced Scorecard aligns the business units, teams and individuals and unites the culture of merging organisations. Chapter 2 provides more detail of the impact of performance measures on elements of organisational culture.

The Impacts of Culture on Performance Measurement

Culture impacts on how successful the introduction of the performance measurement system is, what measures are key, how performance data is communicated, how data are enacted on, how strategy and measures revised are in the longer term, etc. From different levels it is believed to influence performance measurement systems.

From a national culture level, there are a number of researchers focused on national culture and Management Control Systems (MCS) that can be broadly defined as a set of tools, one of which is performance measurement systems, to assist management in driving the organisation towards its strategic goals. Among these researchers are Snodgrass and Grant (1986), who found that Japanese companies when compared to American ones exhibit less explicit control in monitoring, evaluation and rewarding employees. Uneo and Wu (1993) also found that American companies prefer to use formal communications and exert more controllability in budgeting when compared to their Japanese counterparts. Chenhall (2003) tried to draw the common themes from the different researches on national culture and MCS, but due to the lack of overlaps in terms of the theoretical grounds he could not create a generalisable conclusion.

From an organisational culture level, Chenhall (2003) flagged the lack of research linking organisational culture and MCS and stressed the importance of making the Balanced Scorecard (or any innovative MCS) consistent with the "control culture" of the organisation and the need for culture understanding to influence the implementation process. Busco et al, (2001) emphasised that lack of consideration of existing cultural settings when introducing a performance measurement system could result in internal resistance and hence a failure of the system to achieve its intended goals. For example, in a research in a university context Vakkuri and Meklin (2003) found that a university type culture tended to diminish the significance of the performance measurement system by practising game rationalities and politics of representation.

Letza (1996) and Bourne et al (2005; 376) assert "Alignment between the cultural elements embedded in the measurement system and the users' cultural preference is beneficial" for organisations to successfully manage with measures. Franco and Bourne (2003; 708) also state "culture is the most frequently cited factor, even more important than leadership and senior management commitment" when discussing factors influencing performance measurement systems' introductions. Even though they have not found a consensus on the most common aspects of the ideal performance culture, some of the characteristics they bring to the fore are encouraging team work, ownership of problems, risk taking, orientation to continuous improvement, and no control and no punishment of people for errors. Moreover, in a research involving the introduction of a pilot performance measurement system in six manufacturers, Bourne et al (2002) found that culture was one of the three key factors that led to a successful introduction of the system, since the organisational "Paternalistic Culture" played a key role in reducing anxiety and resistance in the implementation phase.

From a subculture or team level Mendibil and MacBryde (2006) found that companies with power decentralised to teams had a better understanding of the team performance measurement system and the process of management. Moreover, teams with adaptable and flexible values were more inclined to design and implement a better performance measurement system for the team. Mendibil and MacBryde also found informal management constrains the design and implementation of teams.

The Impact of Performance Measurement Systems and Culture on Organisational Performance

The third relationship shown in Figure 2 links both organisation culture and performance measurement systems to improved performance. Performance measurement systems' practitioners and a school of theorists stress that the successful introduction of performance measurement systems in organisations would improve performance. Kaplan and Norton's initial quest that led to the development of the Balanced Scorecard, for example, stemmed from this belief which is now the fundamental reason for the strong buy-in to the Balanced Scorecard, Performance Prism, EFQM and other frameworks.

From the organisational culture side a school of theorists has argued since the eighties whether a strong culture that is characterised by its basic assumptions being shared among all the organisation members would drive a better business performance. Some theorists believe a strong culture does improve the business performance (Kotter and Heskett, 1992) whereas others disagree and claim that a strong culture could paralyse the organisation in a changing environment (Chatman and Eunyoung Cha, 2003). Those who disagree ascribe the cause of paralysis to a lack of alertness that would exist normally in subcultures or countercultures assisting in their survival. From what has been highlighted in the subsections above fundamental questions arise:

1. How do performance measurement systems impact on organisational practices, values and beliefs and more importantly on the basic assumptions? If it does change the basic assumptions/theories in use, could it therefore be used as a strategic change mechanism to change an organisation culture?

2. How does really understanding the culture of the organisation intending to introduce a performance measurement system help in developing a system that could be an integral part of the organisation and be seen by its employees as a tool for them rather than one against them?

3. Is there a link between organisational performance, type of performance measurement system (introduction approach, perspectives, performance measures etc) and the type of organisational culture (integrated, differentiated or fragmented) created as a result of the performance measurement system introduction?

These are complex questions which many researchers are trying to answer. This research will focus on the impact of introducing a performance measurement system to an organisational culture and shed light on how understanding the culture can assist in developing a performance measurement system for the organisation and its staff. The researcher believes that knowing the effect of performance measurement systems on organisational culture (whether it would create a strong culture or not) will be of importance to both culture theorists and managers in organisations who believe culture will impact on business performance one way or another. For example, if managers believe a strong culture will improve the business performance they will opt to

implement and use performance measurement systems in their organisations otherwise they will just avoid them.

Performance Measurement System

Improved Performance

Would PMS improve performance?

How would the strength of organisational culture impact on performance?

How would the introduction of the PMS impact on organisational culture?

Schein's Culture Model

Artefacts: Visible organisational structure, processes and forms

Espoused Beliefs and Values: Strategies, goals, and philosophies

Underlying Assumptions: Unconscious, taken-taken for granted beliefs and perceptions

Would culture assist in the acceptance of the PMS?

Would culture understanding influence the design, implementation and use of PMS?

Martin's Culture Perspectives

— Well-being
— Innovation
···· Egalitarianism

Top / Middle / Low
Engineering Marketing Production
Integration

Top / Middle / Low
Engineering Marketing Production
Fragmentation

Top / Middle / Low
Engineering Marketing Production
Differentiation

Organisational Culture

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Figure 2: Questions about the Interaction between Performance Measurement Systems, Organisational Culture and Performance

1.3. Research Objectives

From the above discussion, the researcher set three questions to investigate in depth the impact of introducing a performance measurement system on organisational culture. He also sees benefit to be drawn from his reflection on the introduction of the system in the organisation. In particular, shedding light on how understanding the culture might assist in facilitating the development of a customised system to be widely used and also guiding the Performance Measurement Team in implementing and using the system in the organisation. The research objectives are:

1. Identify how introducing a performance measurement system would impact on organisational culture.

2. Determine what culture manifestations (practices and forms) and basic assumptions (cultural themes) would change with the introduction of a performance measurement system?

3. Establish the degree to which the culture manifestations and basic assumptions would change?

4. Draw out lessons for practice from developing and deploying the Performance Measurement System in a government department in the Middle East.

1.4. The Overarching Approach

An action research philosophical stance will be taken in this research, resembling however, a quasi-experimental approach. Two Technical Vocational Schools will be chosen from the same directorate that the researcher is sponsored by. One school will be the Case organisation where a performance measurement system will be introduced. The second school will be the control setting. Culture assessment will take place in both schools prior introducing the PMS in the Case School. The PMS chosen for introduction in the school is the Balanced Scorecard, which is chosen for its popularity (According to Neely (2005), the first article where the Balanced Scorecard was first announced (Kaplan and Norton, 1992) is cited 119 times till 2005 (to date "31st May 08" 312 times)). A post-culture assessment after 18 months from the pre-interviews will take place. The results of the assessments will be compared for each

school post and pre and then against each other to identify any differences in culture. Figure 3 below unfolds the plan of carrying out this project.
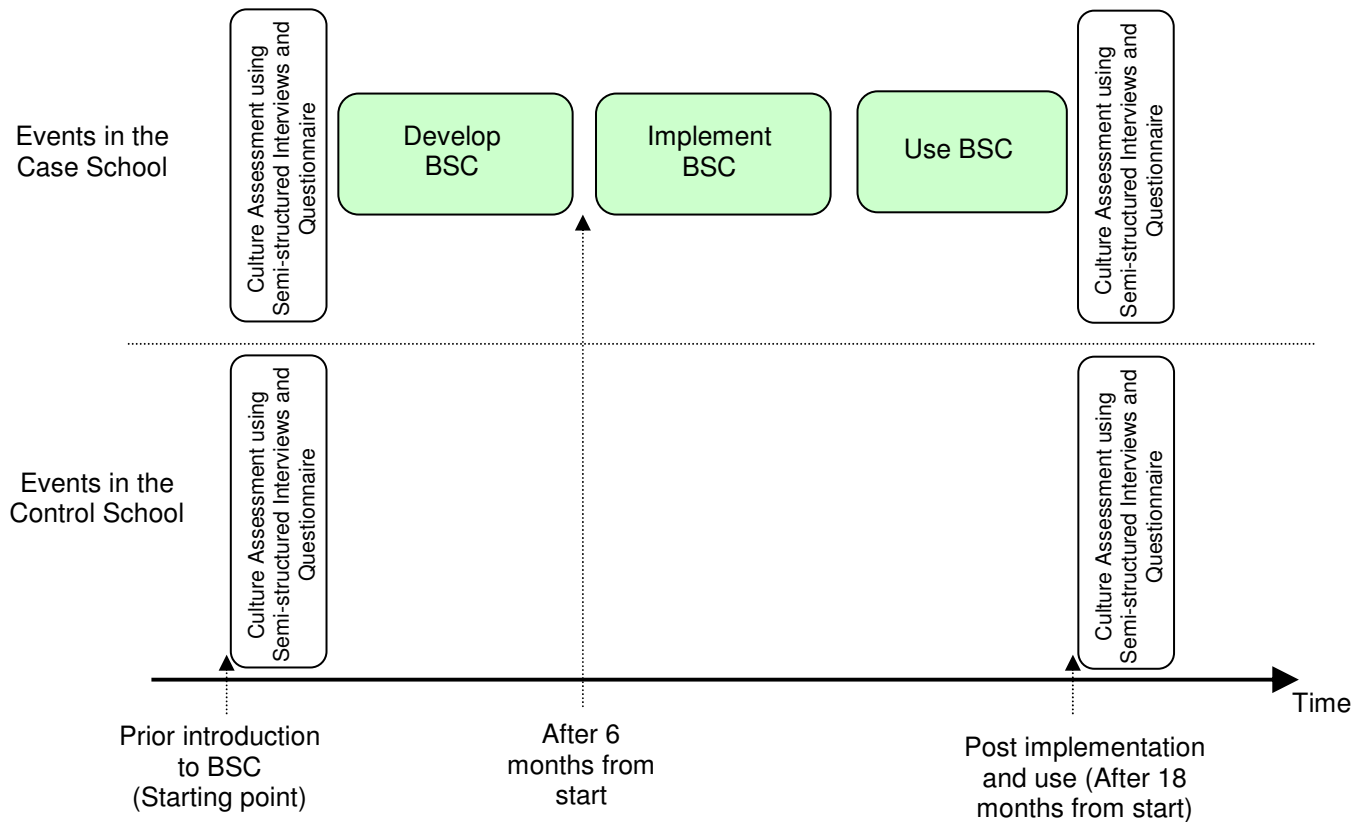
Figure 3: The Unfolded Project Plan

The researcher's role in the intervention will be kept to minimum. He will act as a consultant working only with a dedicated team set up for the performance measurement system (Performance Measurement Team).

1.5. Thesis Structure

This chapter (Chapter 1) sets the scene for what is coming next. It talks briefly about the purpose of performance measurement systems as strategic management tools. However, they, in addition to achieving their intended purpose, have other consequences impacting on beliefs and practices, and hence organisational culture. The interest in this research is also explored and its potential benefits to both practitioners and academics. In conclusion, the chapter talks about the thesis structure. The map in Figure 4 shows what the reader should expect in the coming chapters.

Performance measurement systems changed and what we are asking of them is continually on the rise. Organisations introduce PMS for different reasons. Many systems achieve their goals, but others are accompanied by either positive or negative consequences. In Chapter 2, classification of the intended and unintended impacts on processes/procedures and values/behaviours is presented. Culture is an encompassing term of artefacts, values and behaviours and basic assumptions as defined by Schein. Studies of the impact of performance measurement system on organisational culture are needed. A pioneer study was conducted early on in the decade, which will be discussed with an emphasis on the need to study culture from a deeper level and with a different approach.

Organisational culture schools of thoughts are presented in Chapter 3 stressing in particular the basic assumptions behind them, what scholars try to investigate in each and their implications. The focus in this chapter is on culture as an internal variable, of which a previous study of the impact of PMS on organisational culture was conducted. Moreover, it focuses on organisation symbolism, which the researcher has chosen as the prime school of thought to conduct the research from. The chapter then justifies why Martin's theory of three perspectives of organisational culture has been chosen and Schein's framework to be the complementary framework for Martin's theory – both constituting the investigation framework.

Chapter 4: as this research is complicated in its nature, it starts with a summary of the research strategy plan. The chapter discusses the philosophical stance that dictated the investigation method and theories used for the culture study. It then covers a wide range of subjects such as the selection of the case and control organisations, methods, sampling, interview questions, interview and questionnaire validation process, and research ethics. The chapter then goes on to describe the different analysis methods for both qualitative and quantitative data and their suitability for this research. Finally, abstracts of data analysis will be presented to provide the reader with a sense of how the analysis was conducted.

Chapter 5 acknowledges the different approaches to introducing performance measurement systems in organisations. It then describes the approach adapted for this research and presents the Balanced Scorecards developed. Moreover, the chapter talks about how the Performance Measurement Team in the Case organisation implemented the system; additionally, it presents a guide for using the system.

Chapter 6 presents the qualitative findings. The aim of this chapter is firstly to show what themes emerged and changed due to the introduction of the PMS in the Case School when compared to the Control School. Secondly, it shows the degree of shared-ness of the themes across the different interviewee groups (both hierarchal and functional). Thirdly, it discusses how the themes changed and constructed by referring back to the forms and practices that predicate them.

Chapter 7 presents the quantitative findings based on Schein's five cultural assumptions. It presents both schools' cultures descriptively, showing changes from the pre-study and across the schools. Statistical analyses are then presented to show what beliefs changed and the number of beliefs not affected (in order to show shared-ness) in the schools. The analyses are conducted on the schools as wholes, across the different types of sections, across the different (hypothetical) staff groupings within sections, and across the different occupational levels (descriptively).

Chapter 8 is the discussion and conclusion chapter. It pinpoints where the research questions were answered in the body of the thesis. The chapter synthesises the qualitative and quantitative findings. It brings the values identified quantitatively confirming the different qualitative themes to be presented in conjunction with the performance indicators relating to those specific themes. The classification of processes/procedurals and values/behaviours impacts is revisited after populating it with the key values that found to be bonding most of the themes. The key contribution of this research is also presented. Finally, difficulties faced and opportunities for further research are discussed.

1. Introduction Chapter
- The ideal Strategic Management Model
- Interaction of PMS, Organisation Culture and Performance
- Research objectives

2. Performance Measurement Chapter
- Reasons for organisations to introduce performance measurement systems
- The emergence of the new Performance Measurement Systems and characteristics of good systems
- Impacts from introducing Performance Measures → Positive / Negative — Process/Procedural & Value/Behaviour — & Culture. Impact on Culture study from culture as internal variable school of thought with reforms concurrently

3. Organisational Culture Chapter

Organisational Culture Schools of Thoughts

- Culture as Independent Variable
- Culture as Internal Variable
- Organisational Cognition
- Culture as Unconscious Process
- Organisational Symbolism

- Corporate Culture
- Organisational Cultural
- Schein's 3 Levels & 5 assumptions Model
- Martin's 3 perspectives of cultures theory

Assessment Tool
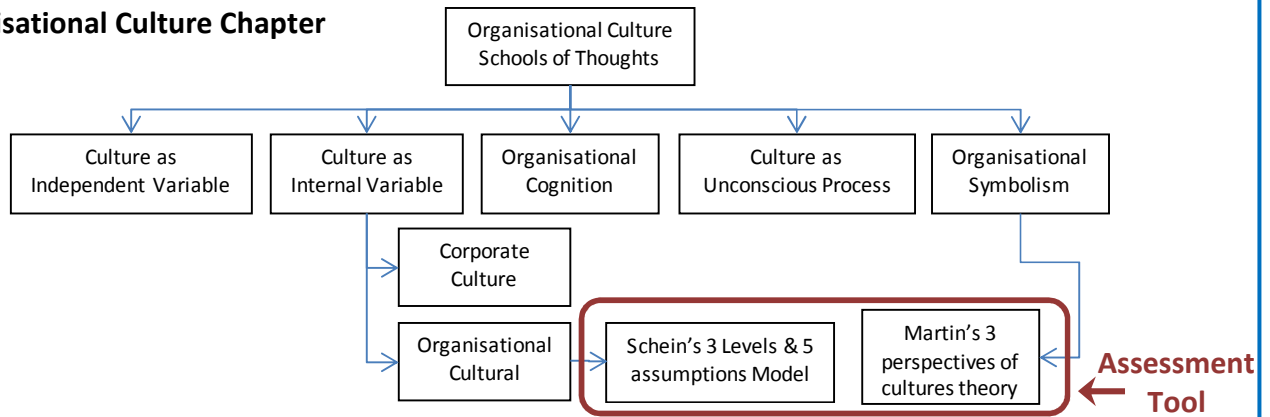
4. Research Methodology Chapter

		Qualitative Methods	Quantitative Methods
Culture Assessment	**Data Collection**	• Semi-structured Int. (1-to-1 & group) • Diary	• Questionnaire
	Data Analysis	• Content Theme & pattern coding • Nominal scoring for salience and shared-ness of themes	• Descriptive (Mode shifts, Range Changes & Clustering) • Statistical (Mann-Whitney & Kruskal-Wallis)
PMS Introduction	**Facilitation & Data Collection**	• Workshop • Diary • 1-to 1 Interview	

5. The Case Organisation BSC
- Approaches to introducing PMS and the BSC for the Case Organisation
- The implementation process and steps for using the PMS

6. Qualitative Findings Chapter
- Themes emerged and changed.
- Degree of Shared-ness of themes among the different groups.
- Predication of themes from org. practices and forms.

7. Quantitative Findings Chapter
- Culture presented descriptively.
- Statistical discussion of values in the school as a whole, across sections, different staff groupings, and across different occupational levels.

8. Discussion Chapter
- Synthesis of qualitative, quantitative and PM which led/predicate to the emerged/changed themes.
- Discussion of the impacts classification of PM.
- Reflection on PM introduction and lesson from culture understanding for PM introduction.
- Further research and limitations

Figure 4: Structure of Thesis

2. Performance Measurement

2.1. Introduction

The first chapter portrayed the structure of this thesis and also presented a hypothesis of the interaction between performance measurement systems, organisational cultural and organisational performance.

This chapter starts by talking about the evolution of performance measures to what we have today in terms of good performance measurement systems. It will then review the literature about why organisations are looking for better performance measurement systems. The chapter then reviews the expected impacts from introducing performance measurement systems. These impacts are classified into a two-by-two matrix of intended and unintended, processes/procedurals and values/behaviours of which most fall into the encompassing concept of organisational cultural. A previous study on the impact on organisational culture will be discussed stressing further research is needed from another perspective of culture studies to advance the field further.

2.2. The Evolution of Performance Measurement Systems

Despite the history of performance measurement dating back to the late 13th century when it was merely in the form of double-entry book keeping, no unified definition existed till 1995 when Neely et al. (1995) defined performance measurement, performance measures, and performance measurement systems as:

> "Performance measurement can be defined as the process of quantifying the efficiency and effectiveness of action."

> "A performance measure can be defined as a metric used to quantify the efficiency and/or effectiveness of an action."

> "A performance measurement system can be defined as the set of metrics used to quantify both the efficiency and effectiveness of actions."

Double-entry book keeping was used until roughly 1850 when employee payment was characterised by "payment by piece". During the 1850s operations in factories changed from single to multiple operations, which inline necessitated a change in the employee payment method to "payment by wages" rather than by the piece. These shifts had

consequences, which mainly were: the cost of products was not known without keeping records of output and wages paid, and employees had less intrinsic motive to work as opposed to working by piece. Therefore a mean for staff performance measurement and monitoring was necessary.

In the early 20th century, management accounting developed to almost what we have today. No notable progress was observed between 1925 and 1987 when Johnson and Kaplan published their book "Relevance Lost: The Rise and Fall of Management Accounting" (Johnson and Kaplan, 1987). The publication of their book came at a time when the West was falling behind Japan. The search for the reasons went in many directions like quality, culture, and even some related to "out of date" performance measures (Bourne, 2004a).

Criticism of the traditional accounting performance measurement systems spurred on by the publication of Hayes and Abernathy (1980) article "Managing our way to economic decline". The decline in American businesses in the 70s was first blamed on higher prices than the East that benefited from cheap labour. Later on in the decade, American businesses even after cutting costs found themselves competing with businesses that differentiated themselves. The accounting performance measurement systems were then criticised for being only financially biased (Johnson and Kaplan, 1987), which led to a number of intertwined criticisms:

1. Backward and internally looking meant focusing primarily on cutting cost, increasing profit and ignoring predictive future performance indicators like customer satisfaction and relationship with suppliers (Dixon et al., 1990, Eccles, 1991, Kaplan and Norton, 1992, Bourne et al., 2003).

2. Increased internal competition between the different business units to cut costs instead of consolidation to achieve the organisation strategic goals (Keegan et al., 1989b), which lead in effect to

   - Not valuating the intangible and intellectual assets and curbing investment on innovation and improvement initiatives (McAdam and Bannister, 2001).
   - Encouraging short-termism rather than long-term sustained profitability (Hayes and Abernathy, 1980, Johnson, 1987, Johnson and Kaplan, 1987, Hayes and Garvin, 1982).

Increased criticism of the traditional accounting performance measurement system triggered a search for more appropriate measurement systems suitable for the new business environment. Section 2.3 explains what characteristics make a good system.

2.3. Characteristics of Good Performance Measurement Systems

A research by Lingle and Schiemann, (1996) found organisations using balanced performance measurement systems perform better than others. Kennerley and Neely (2002) based on their study of the main performance measurement systems identified the following key characteristics:

- Enabling informed decisions to be taken (Neely, 1998).

- Consistency of individual measures that are able to quantify the efficiency and effectiveness of actions.

- Consistency of a set of measures that are part of an integrated system for measuring the organisation performance as a whole.

- Having clear mechanisms and strong supporting infrastructure enabling data collections, collation, analysis, and reporting and dissemination.

- Providing a balanced perspective on the entire organisation's business. Kaplan and Norton (1996) Balanced Scorecards focus on financial and non-financial measures. Fitzgerald et al. (1991) Determinants and Results balances also on lead and lag measures. Keegan et al., (1989a) Support Matrix in addition to focusing on cost and non-cost measures focus also on external and internal measures to the business.

- Having to cover the multi-dimensions of the business to ensure its success. For example, the Performance Prism focuses on stakeholders (satisfaction and contribution), processes, and strategies. The European Framework for Quality Management (EFQM), which is considered the broadest framework used covers nine dimensions split between enablers and results.

- Providing a comprehensive picture of the business performance and highlighting areas needing greater focus. For example, Neely et al. (1996) in their book "Getting the Measures of your Business" present a number of ways

such as the Ford approach used for presenting measures data to the management team of a company.

- According to Kennerley and Neely (2002; 149) a reason for the success and widespread use of the Balanced Scorecard is its "Succinct overview of the organisation's performance". Basically the simplicity and logic of the framework helps the staff of an organisation to understand their business performance and relate to it.

- Bititci et al. (1998) and Tableau De Bord emphasise that performance measures should allow for both hierarchical and horizontal cascading to form (if needed) at the end an integrated system encouraging congruence of goals and actions.

- Some might consider this point as part of the balance measurement systems, but a performance measurement system should include both lead and lag measures and results and determinants such as in the Tableau De Bord, Results and Determinants, EFQM, the Balanced Scorecard (implicitly) and the Performance Prism (implicitly). Having both measures help in planning and control i.e. feed-forward, and feed-back respectively according to Ballantine and Brignall (1994).

- Performance measures should be consistent with different types of comparison and benchmarking to allow integration within other management tools such as Total Quality Management (TQM), Activity Based Costing (ABC), etc.

The list of characteristics above is a synthesis of the strengths of the different balanced performance measurement systems. The next section will describe the different reasons for organisational adoption of performance measurement systems.

2.4. Focus of Measures in Organisations

Neely et al. (1995) were the first to propose definitions for performance measurement, performance measures, and performance measurement system as:

"*Performance measurement* can be defined as the process of quantifying the efficiency and effectiveness of action."

"A performance measure can be defined as a metric used to quantify the efficiency and/or effectiveness of an action."

"A performance measurement system can be defined as the set of metrics used to quantify both the efficiency and effectiveness of actions."

The definitions by Neely et al set the basic role of performance measurement, measures, and system; however they are criticised for not fully satisfying the varied objectives of performance measures. The literature related to introducing performance measures and performance measurement systems in organisations circles round a number of objectives and **intended impacts** and these primarily are:

1. Refine the strategic goals, and integrate the different elements of the strategy
First and foremost performance measures stimulate discussion, achieving consensus and confirming the strategic options for the organisation. Furthermore, they allow refining these strategic options in the light of their applicability given the organisation's issues and competencies and ensure their compatibility with each other. "The development of performance indicators additionally tends to provide significant value in the development of strategic options and the refining of strategies and goals." (Ackermann et al., 2005).

The process of developing performance measures legitimises/ensures that the organisation mission is realistic and could be achieved through the organisation's resources and capabilities. It questions how the different parts fit together to achieve the ultimate goal of the organisation. Jackson (1995) in Wisniewski and Dickson (2001; 1059) emphasises "Most politically generated public service mission statements are wishdriven. They are made with little reference to the organisation's capabilities of delivering them" and "One of the benefits of the scorecard approach, however, is that tensions and conflicts between various parts of the overall strategy become evident." Scotland (1998; 15).

2. Encourage planning the implementation of the organisation's strategy
The development of performance measures triggers the thinking of staff involved to think about the approach and the process that they need to follow to achieve their goals. "The scorecard offered the opportunity of ensuring that a comprehensive plan for each initiative was developed and implemented and that suitable performance measures could be 'designed in' at the planning stage… From the beginning, the unit

saw the scorecard as a planning tool rather than simply a way of generating performance measures." Wisniewski and Dickson, (2001, 1061).

3. Articulate and communicate the organisation's goal, and provide guidance

Strategies in most organisations are developed by their senior directors and chiefs without including representatives from the different hierarchies. Generally, no guidance or clarification is provided to the working core, support staff, or techno-elements staff about the developed strategy, which makes the strategy an alien to most of the staff who are usually left alone to interpret it. Performance measures set what needs to be achieved using simple equations that indirectly communicate the organisation's goals.

"… implementation (of strategy) was either patchy or, in the worst cases, non-existent. It was not unknown for a beautifully presented strategic plan to gather dust in police stations for almost a year whilst staff awaited guidance as to how they should implement the general sentiments contained in it." Hall in a police context in Wisniewski and Dickson (2001).

Furthermore, Jackson comments in Wisniewski and Dickson (2001) 'If mission and vision remain in the minds of the senior management team and are not communicated throughout the organisation then they are valueless."

4. Strategic alignment

Performance measures stress and show to each employee, section, team, and department their importance in the whole scheme of things. They enable the employees to link their daily work with the organisation's vision, mission and strategy. Simple performance measures show the importance of what every employee does to the department's objectives, and how their department's operations link to the organisation's goals.

"An effective measurement system links the vision with daily activities. Individuals and groups understand their contribution in achieving the vision." Hacker and Brotherton (1998) in Wisniewski and Dickson (2001).

Moreover, Kaplan and Norton (1996) in their book "Strategy Focused Organisation" asserted that companies used the Balanced Scorecard to align their business units, shared business units, teams, and individuals.

5. Creating a unified language

A common occurrence in organisations is when a consultant or an external auditor visits and asks the "Yoka Poka" questions (Yoka Poka in Japanese means the stupid questions and asks the basic questions of What, How, and Why) and the answer will be varied or, surprisingly, will be "we don't know!" indicating firstly that there is no clarity and secondly that there is no consensus.

A performance measurement system creates a unified language that is understood not only by the management who sets the goals and means to achieve them, but also by the employees. It simply clarifies why the organisation is doing what it is doing to achieve its optimum goal. For example, Kutucuoglu et al. (2001) in their research showed how the staff of a manufacturing company which had always seen the maintenance work as a 'necessary evil' realised its importance in contributing to the company's profits.

6. Provide direction towards achieving the strategy and goals and information for adjustment

Performance measures provide feedback about the implementation of the strategy (Kaplan and Norton (1996) in Lawrie (2004). For example, the city manager of Chula Vista Dave Rowlands (2003) in Niven (2003) describes the importance of the Balanced Scorecard for the overall performance management as the compass for the traveller that informs him/her if he/she is going in the right direction "I like to think of our strategy as the direction we want to go in, and our staff and budget as the vehicle for taking us there. In this analogy, the Balanced Scorecard serves as our compass by giving us the information we need to focus our resources and efforts on what's important: achieving results for our citizens." Moreover, Wisniewski and Dickson (2001) assert performance information is the key objective justification for adjusting the distribution of resources to satisfy the emerging priorities, "Performance information is a key element for planning, resource control and performance review... (and)... is an essential element of best value: if strategic and operational plans set the framework for best value then performance information is the life-blood of the system."

7. Facilitate/provide learning

According to Argyris (1991), Argyris and Schon (1996), the main reason for organisations not to learn is that they never question why they are doing what they are doing. The discussion of performance measures in a management meeting triggers

thinking and hence leads to double loop learning. Moreover and inline with Argyris and Schon, Jackson (1993) emphasises the use of performance measures should stimulate learning rather than merely controlling staff and resources, "Performance monitoring need not be used as a means of organisational control… In the strategic management perspective… (it) is a means of organisational learning." Jackson (1993) in Scotland (1998).

8. Organisational Control

The history of performance measures tells us that accounting measures were initially introduced to keep count of manufactured goods, and record cost of overheads in order to control profit particularly when payment method changed from payment by "piece work" to payment by "wages". Organisation control, although not a favourable term nowadays and seldom used, the concept still exists in organisations with more emphasis on accountability.

9. Accountability

Probably the newest form of organisational control is accountability where responsibilities are given to departments and individuals within them, with specific targets, roles and turfs that include both resources and area(s) of control. With the introduction of performance measures and targets it is easier to deal with every individual and direct questions regarding pre-specified targets. According to Wisniewski in Scotland (1998) "The performance of an organisation is primarily a reflection of its management." and according to the Accounts Commission of Scotland and SODD performance measures are a pre-requisite for accountability, value for money, and for best value.

Accountability is a highly regarded objective of introducing performance measures in organisations. Nonetheless, if the wrong measures are used in the organisation, severe long-term consequences could result such as creating an organisational culture that is based on individuality rather than one based on group efforts.

10. Benchmarking – Understanding the organisation's competitive position

Many large organisations and governments set performance measures to hold their branches (local and global), business units, and departments accountable. In addition to accountability reasons, organisations and governments set measures to know how they are in whole and part doing against competitors or against international standards

(in case of public organisations). League tables and ranking tables are good examples of benchmarking. Such tables are usually developed by government agencies that act independently to ensure objectivity.

11. Unite the cultures of merging organisations

Stemming from their generic purpose, performance measures emphasise to the organisation what is important. This purpose assists merging organisations to focus their efforts and hence unite them to compete as one organisation rather than working against each other. "Rockwater's first president Norman Chambers, used the Balanced Scorecard, starting in 1993 to unite the *culture* and operating philosophy of the two companies and to enable the new company to compete on the basic quality, safety, and value-added relations with customers, not low prices." (Kaplan and Norton, 1996).

2.5. Unplanned impacts of introducing performance measures

Achieving what the performance measurement systems were set to achieve is one thing and getting unintended effects is another. Unintended impacts have been cited since the emergence of the performance measurement concept. Gaming is the main negative consequence and intrinsic motivation seems to be the key positive impact. This section reviews the literature on the unintended impacts of performance measures and classifies them into positive and negative impacts.

2.5.1. Positive Impacts

12. Changing human nature from Type X to Type Y

Robson (2004) found that performance measures could change the employees' assumptions about rewards, changing them from being motivated by extrinsic rewards (type X) to being motivated by intrinsic rewards i.e. self-motivation (type Y). He also demonstrated that employees could change from being 'type X' that is seen by the management as lazy and only motivated by materialistic rewards to being adaptable to the assumptions held by the management about them and behaving in the opposite direction to the management intention.

13. Changing Time Orientation

Another impact observed was the short-term focus (also called Myopia according to Smith (1995)) caused by the traditional performance measures which encouraged managers in organisations to cut investment in infrastructure and human resources

development, which in effect led to a loss of customers and business in the long-term. Clearly, the type of measures implemented in organisations has an impact on the time horizon that people work for and this is what led to the introduction of the balanced performance measurement systems that encourage managers to think about the longer-term objectives like customer and stakeholder satisfaction and continuity through learning and improvement.

Other impacts reported in Martinez et al. (2004) include enhancing staff motivation (Godener and Soderquist, 2004), and improving top management commitment (Cavalluzo and Ittner, 2004). In agreement, Niven (2003) states "Not only do measures provide managers and executives with a tool to gauge organisational progress, but, when well crafted, they can inspire and motivate all employees, set direction for the organisation, and encourage alignment from top to bottom."

2.5.2. Negative Impacts

In the early 19th century accounting measures drove managers to cut investment in human resources and infrastructure, which led to short-termism (as explained above) and narrow vision for examples. Among other impacts that were identified in the literature are:

14. Tunnel Vision

Tunnel vision happens when managers focus on what is easy to measure or what has been dictated to be measured (Chwastiak, 2006). This, in effect leads to ignoring other important areas. Tunnel vision narrows the scope of a particular department and reduces the balance between the different legitimate objectives of the organisation. For example, waiting lists in the National Health Services (NHS) in the UK led to shortening the waiting time for patients to see a specialist or receive treatment; however, it ignored improving health care according to clinical priorities (Goddard et al., 2002).

15. Sub-Optimisation

Sub-optimisation occurs when managers in the organisation focus only on doing their part without considering how it integrates with other departments and operations. Examples of this are numerous particularly when service managers provide the same service to all without considering the longer chain of activities and the different priorities. In the Ministry of Education of Bahrain, the Services Director for example, provides maintenance based on the request date. However, this could lead in some

circumstances to displeased students, parents, and the public especially when students are left without necessary facilities like water fountains or proper toilets.

16. Measure fixation

Measure fixation for a department stems from purposefully trying to show that the department is doing exceptionally well. When a manager fixates, he/she measures what is easily achieved rather than measuring the longer-term consequences like the outcome. For example, a mobile phone store manager might try to increase sales by selling as many handsets as possible without even providing accurate or full information to customers about the contracts. He/she in the long-term would lose customers as they turn to the competition who provide accurate and full information.

17. Misrepresentation

In addition to manipulating data to show that a department is doing well. Managers also tinker with their reports for the same purpose. The greatest example of this was the Enron story where they 'cooked the books' and just recently (beginning of January 2009) the Indian IT giant firm "Satyam" was found to be doing the same and was criticised for being the "Indian Enron"

18. Misinterpretation

Figures and tables can be quite misleading or easily interpreted differently by different people. Smith (1995) points out that in league tables for example there might not be a real difference between the sequenced items; however, this might be evident through the use of a single-point estimate.

19. Gaming

Neely et al. (2002a) describes a story where airport staff gamed because of poor performance measure. The measure set was "the speed of the first piece of baggage to hit the conveyor belt". Although the measure was set initially to speed the unloading of baggage from the aircraft, it led the unloading-staff to run to the aircraft, pick the smallest piece of baggage, run back with it and throw it on the conveyor belt. Once they had delivered the first piece of baggage to the conveyor belt, the staff took things easy.

Smith (1990) also describes another type of gaming where managers or employees of an organisation purposefully under-achieve to secure a lower target in the next cycle of measurement.

20. Ossification

Ossification happens when performance measures are out of date and do not contribute to achieving the organisational goals; however, they are still collected and probably reported with no one in the organisation having the initiative or the capacity to remove them. Professor Belton (2005) mentioned to the researcher that the NHS in Scotland had 3000 performance measures that surely were not used and no one thought of removing them!

2.6. Classification of Impacts into Process/Procedural and Value/Behaviour

Section 2.4 and section 2.5 above, discussed the objectives of introducing performance measurement systems and the unintended consequences, respectively. One could have noticed some of the objectives aimed at introducing new procedures such as "encouraging strategic planning" or changing behavioural norms like "uniting the cultures of merging organisations". Consequences seemed to impact chiefly the behavioural norms. Table 1 below classifies the objectives and consequences of having 1) process/procedural impact, and 2) value/ behavioural impact.

	Process/Procedural Impact	Value/ Behavioural Impact
Intended Impacts	Refine the strategic goals, and integrate the different elements of the strategy	
	Encourages planning the implementation of the organisation's strategy	
	Articulate and communicate the organisation's goal, and provide guidance	
		Strategic alignment
		Creating a unified language
	Provide direction towards achieving the strategy and goals and information for adjustment	
		Facilitate/provide learning
	Organisational Control	
	Accountability	
	Benchmarking – Understanding the organisation's competitive position	
		Unite the cultures of merging organisations
Unintended Impacts		Changing human nature from Type X to Type Y
		Changing Time Orientation
		Enhancing staff motivation
		Improving top management commitment
		Tunnel Vision
		Sub-Optimisation
		Myopia
		Measure fixation
		Misrepresentation
		Misinterpretation
		Gaming
		Ossification

Table 1: Classification of Impacts into Process/Procedural and Value/Behavioural

2.7. Studies of the impact of performance measurement system on organisational culture

Most studies as highlighted in sections 2.4. and 2.5. focused primarily on one element of organisational behaviour. Processes according to Schein's model of organisational culture are part of the organisational climate and artefacts. Behaviours and values are, on the other hand, a level deeper in Schein's model. However, studies that investigate the deepest level of basic assumption, and make the connection of the disjointed values in the organisation as impacted by performance measurement, are scarce. Two publications by Bititci et al. (2004) and Bititci et al. (2006) describing the same research are the main ones found so far that actually claim to study the impact of performance measurement systems on organisational culture. Bititci et al used the Harrison, (1987) and Hofstede (1980) framework of culture ideologies and management styles with five industries to demonstrate that their organisational culture ideologies changed with the implementation of performance measurement systems.

The findings from Bititci et al were promising, although the findings were not consistent regarding the organisations' cultures change. Bititci et al claimed that an organisation culture should change from a power culture to an achievement culture provided they have an authoritative management during the implementation phase of the performance measurement system. There are two areas of improvement in Bititici et al's study: 1) it seems that the cases' organisation cultures were influenced by the management style that was enforced by the researchers rather than the implementation of performance measurement itself. 2) There were other changes going on in most of the cases' industries e.g. change of general manager in one organisation, promotion of key players in the implementation process in another, introduction of a new production line in the third case, etc. Surely, as researchers we sometimes try to make the best possible outcomes of our involvement with organisations. It would be ideal to capitalise on these areas of improvement using a research methodology that would distance the researcher from the cases, so his/her influence would be reduced. Moreover, to use a strategy approach that assimilates experimentation (quasi-experiment) to identify effects solely due to the introduction of performance measurement systems in the organisations.

Furthermore, Bititici et al. studied the cases' cultures using Harrison's (1978) framework of organisational ideologies. The use of such a framework is ideal for quick and relatively large sample comparison. Harrison's framework stems from the "culture as an internal variable – corporate culture" that will be discussed in more detail in the next chapter. The culture as an internal variable – the corporate culture school of thought has a number of features that are considered as limiting the breadth and depth of study, and the multiple perspectives viewing of the organisation as seen by other schools of thoughts' scholars. Firstly, Harrison's study is narrowly focused on two elements, the interests of the people and interests of the organisation, (Harrison, 1972). Secondly, the framework does not go into depth as it only studies espoused values and beliefs that could be stated to the external rather than studying the basic assumptions that only could be inferred by the internal or through in-depth interviewing. Thirdly, considering small numbers of elements to decipher the organisational culture entails an integrated approach of studying culture assuming consistency across organisational manifestations as opposed to differentiated and fragmented interpretations of culture manifestations. To build on the achievement of Bititici et al outcomes, further research needs to be conducted from another school of thought seeking depth, breadth, and a multiple perspective viewing of organisational culture.

Last but not least, the pioneering conclusion of the Bititici et al study was a result of an investigation into the private sector, which also calls for further research to be conducted into the public sector departments as many of them are following the lead of the private sectors in implementing performance measurement systems.

2.8. Conclusion

Chapter one talked about the claim to improved performance from the perspective of performance measurement scholars and culture scholars. Moreover, it was highlighted that in the literature, the interaction between culture and performance measurement is found to be explored in an unbalanced form. The attention is more on how culture impacts on the introduction of performance measures, and almost no attention is paid to what impacts performance measures really have on culture except the research conducted by Bititci et al. (2004).

This chapter's overall goal is to explore the impact of performance measures on organisational culture. It talked at the beginning about why performance measurement

systems changed to cope with the needs of new business demands. It highlighted the reasons behind the increased adoption of performance measurement systems in organisations and the different impacts observed from introducing them.

The intended impacts found fell mainly into processes and procedures classification whereas unintended consequences into values and behavioural. These impacts were also found to fall into two levels of organisational culture: Artefacts (processes and procedures), and Beliefs and Values.

Bititci et al study without doubt advanced the field of studying the impact of performance measures on culture and stimulated and encouraged this research in the same vein, but was different in that:

- The theoretical basis that uses a culture theory seeking depth, breadth, and looking into organisations from multiple perspectives.

- The methodological approach distances the researcher from the case in a quasi-experiment assimilating method.

- The case and control are public sector organisations.

The next chapter will review the different culture schools of thoughts and the theories that will be used as the culture assessment tool. Chapter four will discuss the research methodology, the strategy used in conducting this research, and will provide information about the case and control organisations.

3. Organisational Culture

"It is easily used to cover everything and consequently nothing" Alvesson (2002) in describing culture

3.1. Introduction

The previous chapter talked about the reasons organisations opt to introduce performance measurement systems and the expected impacts of introducing one. Organisational culture is an overarching concept for many of the impacts observed in the previous chapter into which a leading research had been conducted investigating the impact of performance measures on organisational culture from culture as an internal variable – corporate culture on five private sector industries.

This chapter will talk about organisational cultures schools of thoughts. The focus will be firmly on culture as an internal variable and organisational symbolism. Two emerged internal variable schools of thought: corporate culture into which the previous study of Bititici et al was conducted and organisational culture from which Schein's assumptions will be used as the complementary theory for the culture assessment. Moreover, organisational symbolism schools of thought will be discussed, highlighting in particular Martin's theory of three perspectives on culture which will be used as the main theory in developing the culture assessment tool. Furthermore, the chapter will discuss what culture researchers really investigate when studying culture leading from it to the conceptual framework that is based on Martin and Schein's frameworks.

3.2. Organisational Culture Schools of Thought

Several researchers like Cameron and Ettington (1985), Ott (1989); Deshpande and Webster (1989); Chang and Wiebe (1996); Berthon, et al. (2001) in Reigle (2003) claim that the study of culture is rooted in the field of anthropology and dates back to the end of the nineteenth century. Consensus on a single definition of culture did not exist, which in effect encouraged anthropologists Kroeber and Kluckhohn in 1952 to scrutinise 164 definitions to define commonalities between the existing definitions at that time. Yanow and Adams (1997) on the other hand believe culture as a concept in organisational context dates back to at least Elliott Jaques's (1951) study (Organisational Development Study). They assert that it was not until the late 1970s in

the US and early 1980s in Europe that the concept developed rapidly creating three main schools of thought on the concept: Corporate culture, Organisational Culture, and Organisational symbolism. Whereas Smircich (1983) beside Kroeber and Kluchhohn's functionalism at that time identified another four emergent schools of thought: structural-functionalism, ethnoscience, symbolic anthropology, and structuralism.

Smircich (1983) in her article "Concepts of Culture and Organisational Analysis" assimilates organisations with culture as both seek orderliness and patterning. She bases her classification on Meadows (1967) organisation theory showing the intersections inherent in the image of order. Figure 5 shows Smircich's depiction of the intersections between organisation theory and cultural theory. The five classifications stem from two broad categories: (1) culture as a critical variable; and (2) culture as a metaphor.

Concepts of "Culture" from Anthropology	Themes in Organisation and Management Research	Concepts of "Organisation" from Organisation Theory	
Culture is an instrument serving human biological and psychological needs e.g. Malinowski's functionalism	**Cross-Cultural or Comparative Management**	Organisations are social instruments for task accomplishments. e.g., classical management theory	**Culture as a Variable**
Culture functions as an adaptive-regulatory mechanism. It unites individuals into social structures. e.g., Radcliffe-Brown's Structural-functionalism	**Corporate Culture**	Organisations are adaptive organisms existing by a process of exchange with the environment. e.g., contingency theory	
Culture is a system of shared cognitions. The human mind generates culture by means of a finite number of rules. e.g., Goodenough's ethnoscience	**Organisational Cognition**	Organisations are systems of knowledge. "Organisation" rests in the network of subjective meaning that organisation members share to varying degrees, and appear to function in a rule-like manner. e.g., cognitive organisation theory	**Culture as a Root Metaphor**
Culture is a system of shared symbols and meanings. Symbolic action needs to be interpreted, read or deciphered in order to be understood. e.g., Geertz's symbolic anthropology	**Organisational Symbolism**	Organisations are patterns of symbolic discourse. "Organisation" is maintained through symbolic modes such as language that facilitate shared meanings and shared realities. e.g., symbolic organisation theory	
Culture is a projection of the mind's universal unconscious infrastructure. e.g., Levi-Strauss' structuralism	**Unconscious Processes and Organisation**	Organisation forms and practices are the manifestations of unconscious processes. e.g., transformational organisation theory	

Figure 5: Intersection of Culture Theory and Organisation Theory

Source: Smircich, Concepts of Culture and Organisational Analysis (1983)

3.2.1. Culture as an Independent Variable: Cross-cultural or Comparative Management Studies

In this school, culture is considered to be a background factor (almost synonymous with staff nationality) and an explanatory variable that influences beliefs. It is believed to be imported by members of the organisation. Scholars studying culture from this perspective are concerned with practices and attitudes of the management and staff across countries paying particular attention to actions and patterns of behaviour to reveal the culture's essence. The implications are to identify values and attitudes that lead to organisational effectiveness and success so they could be transferred to organisations elsewhere from the organisations studied. Figure 6 is a portrayal of this typology influencing an organisation.
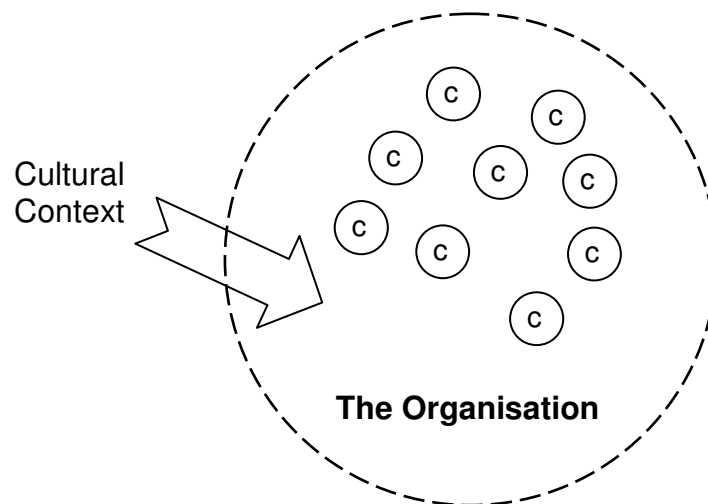
Figure 6: Culture as an External Variable

Source: Smircich, Concepts of Culture and Organisational Analysis (1983)

Hofstede – National Culture

Hofstede is among the top 100 most cited authors in the Social Science Citation Index (Hofstede and Hofstede, 2005, Hofstede, 2001). Between 1968 and 1972 Hofstede conducted over 116,000 attitude surveys in IBM subsidiaries in 72 countries trying to define differences of national cultures. His study identified five dimensions of national influence:

1. Power distance: defines the degree to which the lower level employees accept and expect inequality in power distribution throughout the organisation. In low power distance nations, inequality is minimised and decentralisation is prevalent. Subordinates expect to be consulted by their superiors and symbols of status are minimal. In high power distance societies, centralisation dominates, inequalities between different ranks are desirable, and status symbols do reflect these differences.

2. Uncertainty avoidance: reflects the extent to which an organisational culture programs its members to deal with uncertainty and risk. It is simply how much members of an organisation feel threatened by uncertain and ambiguous situations. In weak uncertainty avoidance societies, people are tolerant to unknown circumstances, and unfamiliar risks. People are comfortable with new ideas and 'thinking outside the box' ideology. People are usually motivated by accomplishments and self esteem. On the contrary, societies characterised by high uncertainty avoidance tend to be scared of the unknown. People in them normally resist innovation and are motivated by security.

3. Individualism vs. collectivism: represents a continuum in which members of an organisation either stand up and look after themselves or remain integrated in a group. In individualistic societies, the hiring contract is based on mutual benefit between the organisation and the employee and promotion and incentives are based on skills and productivity. On the other hand, contracts in collective societies are based on moral ties such as family and social links. Hiring and promotion decision are taken normally based on the relationship of the member to the group.

4. Masculinity vs. femininity: refers to the degree of adherence to emotional roles of genders such as competitiveness, ambition, assertiveness, accumulation of wealth and material possessions. In high-masculinity societies, managers are expected to be decisive and assertive. Competition is emphasised between staff, and work is believed to be the ethos for life. Whereas in high femininity society, managers strive for consensus and solidarity. Equality is the prevailing assumption held among employees. Conflict is normally resolved through compromise and negotiation and the main idea about work is that "one works to live".

5. Long-term vs. short-term orientation: refers to the extent of delayed gratification that members of an organisation accept for their material, social, and emotional needs. Short-term orientation societies respect tradition and demand quick results. Long-term orientation societies on the other hand adapt traditions to modern contexts and request perseverance in task accomplishments.

3.2.2. Culture as an Internal Variable: Corporate and Organisational Culture

Organisations in this school of thought are considered themselves to be culture-producing (Siehl and Martin, 1982), comprising and reproducing different cultural artefacts such as systems, procedures, rituals, myths, stories, legends, etc. Culture is believed to be the bond that brings the employees of the organisation together with its values moulding the socio-culture manifested through the different artefacts. The concern for researchers here is to interpret the socio-cultural embedded in the organisation through linking and articulating patterns of meanings of the different components of the artefacts. Early on, the researcher, from this perspective, focused on studying formal practices of organisations like structure, technology, processes, and procedures (Martin, 2002, Ott, 1989b). The implication of this culture typology is that as organisations are part of the environment, managers act through system changes or symbolic actions to respond to changes in the environment (Pfeffer, 1981). Two camps emerged from this school of thought, Corporate Culture and Organisational Culture.

3.2.2.1. Corporate Culture

The noticeable advancement of the Japanese companies led the West (mainly the US) to question the reasons for such advancements. Three books published in the early 1980s titled, 'Theory Z' by Ouchi (1981), 'The Art of Japanese Management' by Pasquale and Athos (1981), and 'In Search of Excellence' by Peters and Waterman (1982) initiated interest in organisational culture. These books touched on elements of organisational culture, but it was Deal and Kennedy who published the first book that incorporated the term "Corporate Cultures" in its title.

Research within this school is based on system theory and is mainly concerned with demonstrating contingent relationships between organisational variables and organisational survival or excellence, (Smircich, 1983). Variables like size, technology, structure and leadership were traditionally used prior to the introduction of the more subjective variable 'culture'. Advocates of this school suggest that having the right

culture artefacts would lead to better performance. For example, Deal and Kennedy identified heroes, rituals and symbols of successful American companies and advocated their use for companies wishing to be successful, (Yanow and Adams, 1997). Other researchers studied similar and different artefacts like stories, legends, and specialised language.

Corporate culture scholars believe that culture is something that an organisation has. Therefore, they use quantitative measures to identify the type of culture that the organisation has and then suggest some artefacts to change the culture to the desired one. The identification of type of culture is normally based on two or more organisational elements that are operationalised in a survey to be distributed in an organisation. Below is a brief description of the prominent studies that initiated this school of thought.

Deal and Kennedy – Risk and Feedback

Deal and Kennedy identified four generic cultures, tough-guy macho, work hard / play hard, bet your company and process cultures that are based on two factors in the marketplace: the level of risk associated with the organisation's activities and the speed of feedback received on performance (see Figure 7 below).

An organisation with a tough-guy macho culture, such as a police department, surgeons, and management consultants, expects quick returns from its high-risk environment. Its staff take high risks and receive rapid feedback on the effectiveness of their actions. It greatly emphasises the success of individual achievement in the short term, but is unable to benefit from co-operative activities. This results in a high turnover of staff. This also contributes to the result of internal tension and conflicts between staff and an inability to develop a strong and cohesive culture.

In the culture of work hard / play hard, an organisation faces low level of risk but quick feedback on performance. An organisation with this culture may use contests, games or rallies to motivate staff. However, with a focus on the short-term future, high sales volume might be achieved at the expense of service/product quality.

Organisations that take high risks with huge investment and look for long-term future outcomes are identified with "Bet your company" culture. Such organisations are aircraft manufacturers and pharmaceutical companies. Actions in this culture are

detailed and planned, where the hierarchical nature of the culture is reinforced by ritualistic business meetings to reinforce the top-down decision making process. Employees who can fit into this culture are team players with a respect for authority, and the technical ability and skills to work under pressure. With the focus on long-term goals, a company with this culture produces high-quality innovations and scientific discoveries, but the long-term goals make the company vulnerable in an economy and a stock market that are more interested in short-term returns.

Risk

	Low	High
Slow	**Process Culture**	**Bet your Company Culture**
Rapid	**Work hard / Play Hard**	**Tough-guy Macho Culture**
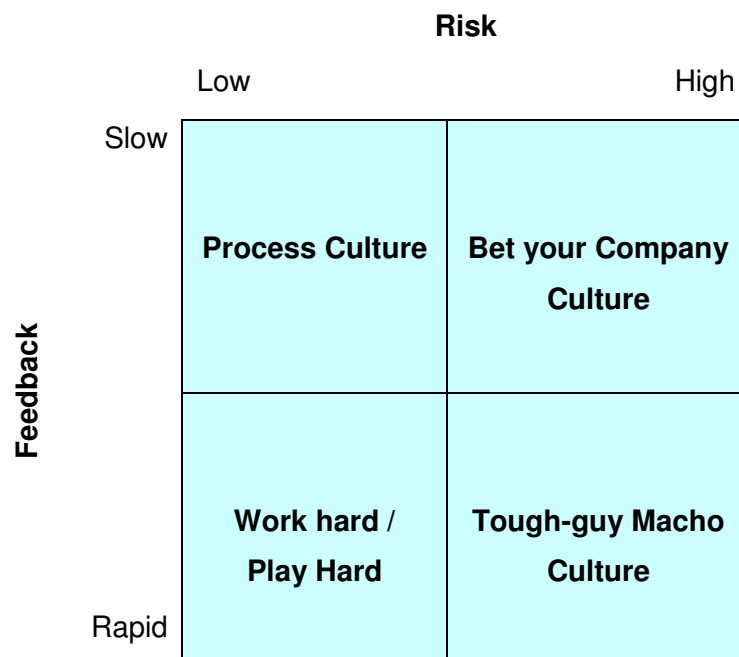
Feedback

Figure 7: Deal and Kennedy's Organisational Cultures

Source: Capon, Understanding Organisational Context (2000)

The fourth type, with low risk and slow feedback is called "The Process Culture". Organisations with this kind of culture are common in the civil service, public sectors and banks according to Kennedy and Deal (this view, in the researcher's opinion, is quite outdated as banks are now very agile compared to manufacturing). The speed of response to action and decisions is very slow in this type of culture. The employees in an organisation of this category focus primarily on how things are done rather than the reasons for doing them in a certain way or the outcome. The culture is further characterised by the significant emphasis on job titles and roles, which are symbolised by the size of the office and the style of furniture. The position that a person occupies

determines the amount of his power. Organisations with this type of culture could struggle in a changing environment as they lack the creativity and vision to adapt rapidly to changing circumstances. Their preferred arenas are predictable and stable environments.

Harrison/Handy Typology based on Power Structure

Based on the power structure in organisations, Harrison (1972) proposed four typologies of culture: Power, Role, Task, and Person. Handy (1978) adapted Harrison's typology and depicted them in simple pictograms making reference to Greek mythology as shown in Figure 8.

Power Culture
(The Web)

Task Culture
(Lattice)

Role Culture
(Greek Temple)

Person Culture
(Cluster)
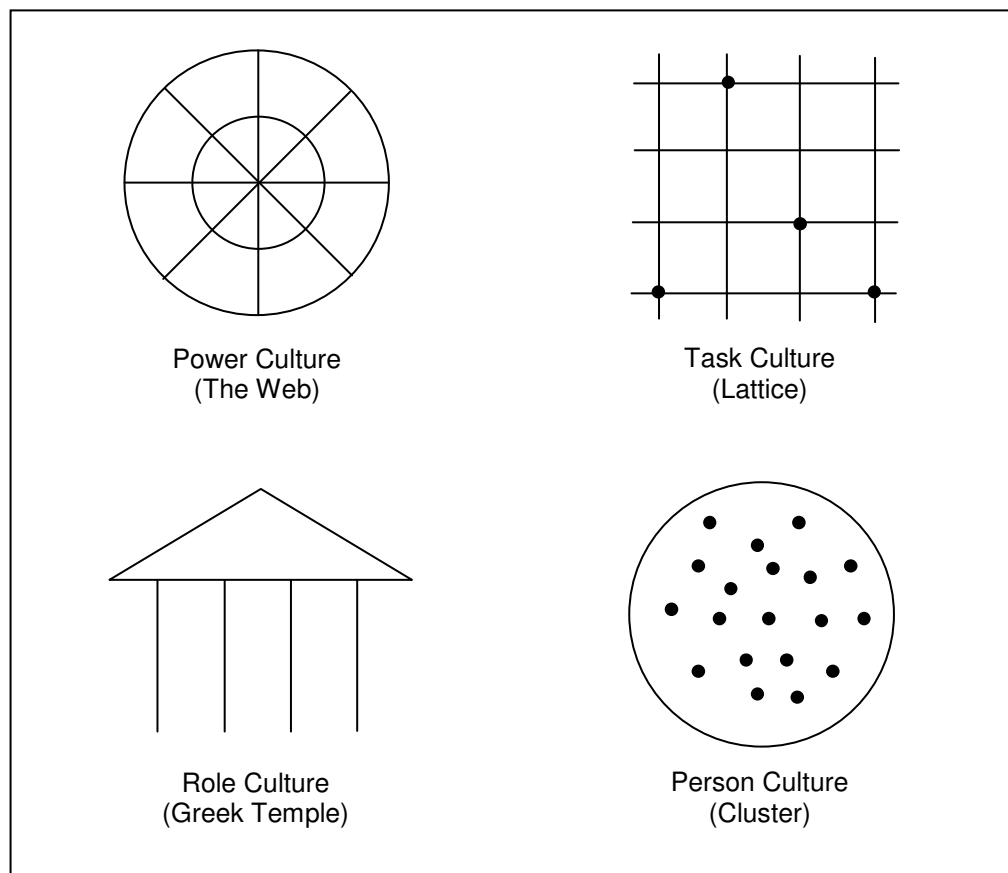
Figure 8: Handy's Depiction of Harrison's Culture Typology

Source: Adapted from Handy (1985)

As the depiction shows, power culture has a single source of power. Influence radiates from a single source to the different functional and specialist areas. Certain factors

affect the internal organisation structure; in particular, trust, personal communication, and empathy. Influence and authority are based on control of resources and charisma. Bureaucracy is minimal and only a few rules are needed as control is central. In this type of culture individuals are executers as negotiation is discouraged. The strength of power culture is its ability to react to changes. However, this is mainly a result of the power centre ability and skills. It is prone however to break up if the organisation grows in size.

As the name entails, role culture is specialist or functional based, which is also its key strength. The inherent speciality in this culture leads to bureaucracy driven by rules, procedures, and job description. Power in this culture is dominated by position and formal rank and to a lesser extent by expertise. This type of culture is most successful in stable environments and where their products have a long life cycle. However, this strength could become a weakness especially when change is necessary to meet market or taxpayers' demands.

Power is diffused in a matrix culture and expertise and knowledge are the bases for it. This culture exists predominantly in organisations working on tasks or projects, like advertising companies or companies producing products with short life cycles. Power in this type of culture lies in the interstices. Internally, the organisation focuses on bringing the necessary people and resources from different poles of expertise to accomplish the job in hand. Its key strength is team work and speed of adaptability to needs and demands, whereas its weakness is its inability to build up distinctive expertise. This culture is considered ideal for young and middle level managers.

In person culture, individuals have almost complete autonomy and in decision making they have equal influence or in extreme cases when power needs to be exercised the person with the most experience takes the lead. Person cultures (organisations) develop for the people who comprise them (Brown, 1995) e.g. a group of doctors, barristers and architects who decide to gather for reasons of convenience of sharing the cost of overheads. University professors and Research and Development specialists could also be generally classified as loosely affiliated to their organisations and often perceived to be part of a person culture.

3.2.2.2. Organizational Culture

Under the structural-functionalist perspective, a spinoff camp emerged that seeks to develop generalisable typologies of cultures informed by context specific data (Yanow and Adams, 1997). Edgar Schein is the predominant writer in this camp. He is an organisational psychologist who worked with organisations to try to change their cultures based on their requests. Schein describes his research approach that is driven by the client as the "clinical perspective". He wrote a dedicated article titled "Clinical Inquiry/Research" (Schein, 2001) to describe the different types of clinical perspectives based on the degree of involvement.

Schein believed an organisation culture is the creation of the leadership. He also believed that an organisation has only one culture, rejecting other claims that an organisation could have subcultures or countercultures, although this argument has been corrected in a later addition of his book "Organisational Culture and Leadership". The criticism he received is that he was very involved with the management of organisations and only saw and believed that the culture is created from top to bottom and that the management's values will stream downwards to the lower level employees. Schein's arguments are still a field for debates on culture. Despite these criticisms, his framework is the most comprehensive of all frameworks that exist for culture and his book has been cited as one of the most remarkable influences on management (Crainer and Hamel, 1997).

```
┌─────────────────────┐
│     Artefacts       │        Visible organisational structure
└─────────────────────┘        and processes, which
     ↑        ↓                 performance measures are
┌─────────────────────┐        part of
│     Espoused        │
│    Beliefs and      │        Strategies, goals, philosophies
│      Values         │
└─────────────────────┘
     ↑        ↓
┌─────────────────────┐        Unconscious, taken-for-
│    Underlying       │        granted beliefs, perceptions,
│    Assumptions      │        thoughts, and feelings…
└─────────────────────┘
```
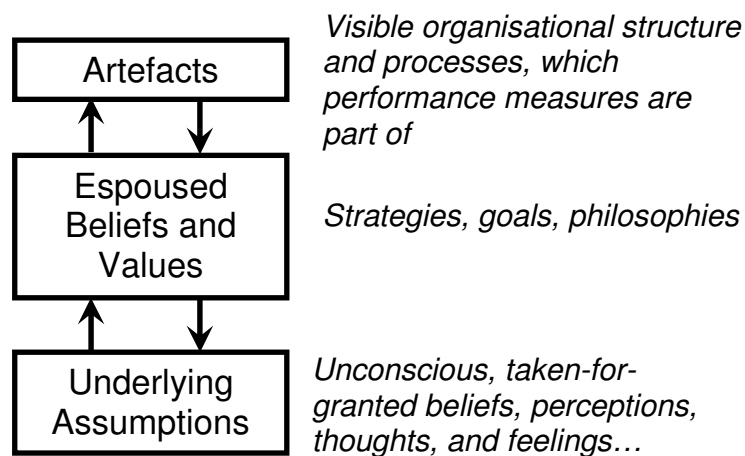
Figure 9: The Culture Three Layers

Source: Adapted from Schein, Organizational Culture and Leadership (2004)

Schein in 1985 developed a model for organisational culture that is made up of three levels as shown in Figure 9: Artefacts, Espoused Beliefs and Values, and Underlying Assumptions. Schein's model is a broad one. The artefacts represent the visible organisational structure and processes that anyone new to the organisation can see, hear, and feel such as offices layout, control systems, stories, jokes that people tell, etc. Espoused Beliefs and Values are split between values that have already been tested and became norms for the daily work, and reflections of someone's original beliefs and values of what ought to be, as distinct from what is, and yet have not been tested. Examples of the espoused values are strategies, goals, and philosophies and theories of operation. The Basic Underlying Assumptions are the result of the successful deployment of certain beliefs and values that the group take-for-granted for doing things in and around their organisation. To explain the meaning of basic assumptions the researcher quotes this analogy by Schein (2004; 31), which is close to the researcher's engineering heart "in an occupation such as engineering, it would be inconceivable to deliberately design something that is unsafe; it is a taken-for-granted assumption that things should be safe". Basic assumptions by Argyris, (1991) are the "theories in use" that guide behaviour, perception, and thinking.

"The culture of a group is a pattern of shared basic assumptions that the group learned as it solved its problems of external adaptation and internal integration that has worked

well enough to be considered valid and, therefore, to be taught to new members as the correct way to perceive, think, and feel in relation to those problems"

<div align="right">Schein (2004, 17)</div>

Schein model was structured in levels to reflect the difficulty in deciphering the organisation culture. Artefacts, despite being easy to observe, are very difficult to decipher. Espoused Beliefs and Values are articulated reflections by members of the organisation of their behaviour, which reveal part of the culture, however there are deeper assumptions that the espoused values do not disclose. Categories of basic assumptions instead can assist in fully understanding the roots of the culture. Schein clustered the assumptions into basic assumptions and deeper basic assumptions:

1. Assumptions about the external adaptation issues

   These are the assumptions held by the members of the organisation in coping with any new or recurrent external environment challenges. These assumptions would ensure the organisation's survival. The elements of the coping cycle as specified by Schein are the core mission and strategy, the goals derived from the mission, the means to achieve the goals, the measurement and management mechanism for evaluating and controlling the organisation in achieving its goals, and finally the correction mechanism if deviation from the set goals occurs.

2. Assumptions about managing internal integration

   These are the assumptions concerned with maintaining stable internal relationships within the organisation. They are concerned with the language and conceptual categories used, criteria for inclusion and exclusion in the group, criteria for power and status, criteria for rewards and punishments, and norms of intimacy, friendship, and love.

   The assumptions about external adaptation and internal integration reflect deeper assumptions that any group must have a consensus on based on the Schein argument. These assumptions are related to reality and truth, space and time, and human nature, human activity, and human relationships. See Table 2 for their definitions.

The Nature of Reality and Truth: The shared assumptions that define what is real and what is not, what is a fact in the physical realm and the social realm, how truth is ultimately to be determined, and whether truth is revealed or discovered.

The Nature of Time: The shared assumptions that define the basic concept of time in the group, how time is defined and measured, how many kinds of time there are, and the importance of time in the culture.

The Nature of Space: The shared assumptions about space and its distribution, how space is allocated, the symbolic meaning of space around the person, and the role of space in defining aspects of relationships such as degree of intimacy or definitions of privacy.

The Nature of Human Nature: The shared assumptions that define what it means to be human and what human attributes are considered intrinsic or ultimate. Is human nature good, evil, or neutral? Are human beings perfectible or not?

The Nature of Human Activity: The shared assumptions that define what is the right thing for human beings to do in relating to their environment on the basis of the above assumptions about reality and the nature of human nature. In one's basic orientation to life, what is the appropriate level of activity or passivity? At the organisational level, what is the relationship of the organisation to its environment?

The Nature of Human Relationships: The shared assumptions that define what is ultimately the right way for people to relate to each other, to distribute power and love. Is life cooperative or competitive; individualistic, group-collaborative, or communal? What is the appropriate psychological contract between employers and employees? Is authority ultimately based on traditional lineal authority, moral consensus, law, or charisma? What are the basic assumptions about how conflict should be resolved and how decisions should be made?

Table 2: Dimensions of Basic Underlying Assumptions

Source: Schein, Organizational Culture and Leadership (2004)

Theorists from Corporate Culture and organisational culture camps (structural-functionalist school of thought) Yanow and Adams (1997) and Allaire and Firsirotu(1984) in Plakoyiannaki (2002) argue that the culture is a predictor to productivity, and organisational survival, (Martin, 2002). However, it is strongly condemned by other culture researchers from other schools of thoughts, because

structural-functionalist studies tend to take a managerial point of view and ignore or work against the interests of lower level working employees, (Martin, 2002).

3.2.3. Organisational Cognition

"Culture is a system of shared cognitions or a system of knowledge and beliefs" Rossi and O'Higgins (1980) in Smircich (1983; 348). It is concerned with how members of organisations perceive events, practices, etc and infer from them a set of (unconscious) rules for their daily life. Scholars studying culture from this perspective try to elicit the unconscious set of rules from its members that shape the image of their organisation and their behaviour. Harris and Cronen (1979) believe culture (or what they call Master Contract) represent the organisation image that reproduces itself through members' interpersonal interactions and reactions. The implication from this school of thought led to the emergence of a host of theories concerned with organisational learning (Allaire and Firsirotu, 1984). Argyris and Schon (1978), Wacker, (1981) and Litterer and Stanley (1981) are theorists whose work stemmed from this school of thought and aimed at identifying misalignment between members' behaviours and underlying rules of actions with the overall master contract of the organisation.

3.2.4. Culture as Unconscious Processes

This school of thought forms the basis for the Levi-Strauss structural anthropology where he believes that the human mind has built-in constraints structuring psychic and physical content (Rossi, 1974). Through this perspective culture is believed to be the expression of unconscious psychological processes (Smircich, 1983). Manifestations such as practices, organisational structure, and forms are only projections of the unconscious processes. Scholars studying culture from this perspective aim at revealing the universal dimensions hidden in organisational members' minds. They try to identify a structure for their understanding of the unconscious mind consciously projected. The implication of this school of thought is that the structure drawn from the unconscious mind is to be used to solve problems deeper than the ones identified by models, terms, etc that are generally agreed upon by most organisational members.

3.2.5. Organisational Symbolism

Proposed by the interpretive school, this school of thought focuses on how organisational members interpret, understand, and link the meanings of their different culture symbols and on how to relate these interpretations/understandings/meanings to

activities or behaviours in the organisation, (Smircich, 1983). Culture analysis and knowledge generated in this perspective reflects the understanding of organisational members and their experiences of their specific situations as well as the researcher's interpretation of these understandings and experiences.

This school of thought gained strength in particular in 1990s when the focus of research shifted from being dominated by managerial interest to critical culture studies that challenged managerial assumptions, (Martin, 2002). This vested interest in critical culture studies meant that the organisational culture was looked at from the perspectives of the different groupings in organisations e.g. functional departments, and shop floor. This in effect led to the creation of a new theory that views organisations from different perspectives: integration, differentiation, and fragmentation by Frost et al. (1991) and then Martin (1992) developed it further.

Martin - Three Perspectives Culture Study

The *integration* perspective studies' main focus is on the belief that a cultural manifestation is interpreted consistently across the organisation and that the different manifestations have a unified meaning to all culture members where ambiguity is alienated. According to Martin (2002; 94) "Culture is like a solid monolith that is seen the same way by most people, no matter from which angle they view it".

The *differentiation* perspective focuses on culture manifestations that are interpreted differently by organisation members. The different manifestations have consistent meaning for different groups creating groupings or subcultures. "Subcultures are like islands of clarity in a sea of ambiguity", (Martin, 2002; 94). Within subcultures clarity prevails and ambiguity is channelled outside the subculture. Organisations could have a number of subcultures that exist and work in harmony, independently, or in conflict with each other.

The *fragmentation* perspective sees no consistency between manifestations' interpretations i.e. relationships between manifestations do not exist. Each manifestation is interpreted separately creating groups of consensus about individual manifestations only. Martin (2002; 94) uses a metaphor to represent an organisation with fragmented cultures "Imagine that individuals in a culture are each assigned a light bulb. When an issue becomes salient (perhaps because a new policy has been introduced or the environment of the collectivity has changed), some light bulbs will

turn on, signalling who is actively involved (both approving and disapproving) in this issue. At the same time, other light bulbs will remain off, signalling that these individuals are indifferent to or unaware of this particular issue. Another issue would turn on a different set of light bulbs. From a distance, patterns of light would appear and disappear in a constant flux, with no pattern repeated twice".
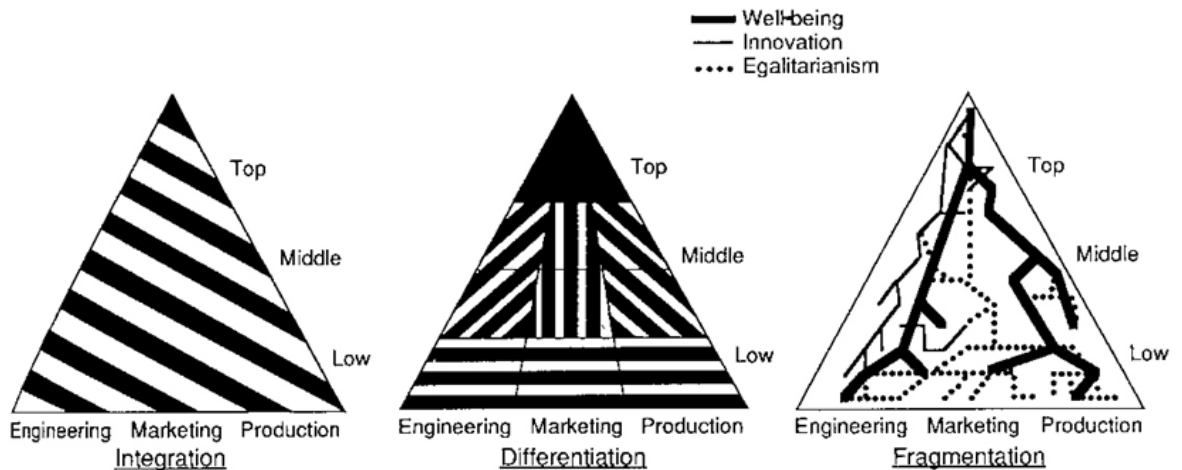
Figure 10: Martin's Three Perspectives of Culture

Source: Adapted from Martin (1992)

This research as was mentioned earlier and will be elaborated on in the next chapter, intends to study and describe in depth the culture of the case and control organisations. It is an exploratory research that intends to identify the impact of performance measurement on the organisation as a whole i.e. from the perspective of the different groupings within the organisation whether top management, middle management, lower level staff, social groups, etc. Therefore, studying organisational culture using this school of thought is more appropriate for answering the research questions.

3.3. What culture manifestations do culture researchers study?

Culture manifestations are among one of the many dichotomies prevalent in the study of culture. Two types of studies are identified, Generalist and Specialist studies. A Generalist study examines many culture manifestations trying to obtain a holistic view of the organisation. A specialist study, however, is a narrow study focusing on only one or two manifestations. The argument made by Specialist studies is that interpretations

from all manifestations are consistent and therefore there is no need to study more than one or two manifestations. A Specialist study is indeed an integration study seeing only consensus in an organisation, rejecting the idea of subcultures and ambiguity in organisations.

Many types of manifestations exist, which Martin (1992) categorises into four main, broad categories: Culture Forms, Formal Practices, Informal Practices, and Espoused Values and Beliefs.

Culture Forms

Culture forms include rituals, ceremonies, stories, humour, jargon and physical arrangements. A ritual is like a play that is carefully planned with defined activities and roles for organisational members. It has a well defined beginning and end that is carried out in a social context in the presence of an audience. Rituals and ceremonies are similar except that a ritual is a repeated event whereas a ceremony is a onetime event.

An Organisation story focuses on a single event sequence in which its central characters are members of the organisation. A Story is known by a large number of members of the organisation and is believed to be a true depiction of the facts. It consists of a narrative describing the sequence of events and a set of meanings and interpretations that vary based on the teller of the story, (Martin, 2002).

Humour to organisation members is a way for releasing tension and is a mechanism for expressing what they are not supposed to express. It is the least examined manifestation (Martin, 2002) as it is difficult to decipher by outsiders, and it is very difficult to encourage participants to speak or mention their jokes without the context.

Jargon is the special language that only insiders of an organisation can understand. There are two categories, Technical and Emotional. Technical Jargon is related to tasks and operations such as vocabularies and acronyms. Technical Jargon is often learned first by new members of an organisation as it is essential for accomplishing the task. Emotional Jargon, on the other hand is concerned with feelings. Emotional Jargon includes metaphors, nicknames, family names, place or position names, etc.

Physical arrangements can be quite an informative manifestation. They are often used by new managers to symbolise change. Physical arrangements include architecture, interior décor, and dress code.

Formal Practices

Prior to the increase in awareness of the importance of culture forms discussed above, formal practices were the centre of attention in culture studies. Formal practices are the written practices. They are divided into four types of practices: Organisational Structure, Task and Technology that are used in producing the goods or services, Rules and Procedures that govern movements and stability in the organisation, and Control Systems like financial control, quality systems, performance measures, etc.

Informal Practices

Informal practices are social rules that evolved through interaction. They are not written down as otherwise they would reveal inconsistency between what is formally documented as rules and procedures. They are basically encroachments that people use in organisations to get things done the way they want them to be done or to speed things up. They also create a limited or temporary space for relaxing the formal requirements.

Espoused Values and Beliefs

These are the values used to make an impression on an audience(s). They could be either sincerely espoused reflecting an organisation's activities or corporate propaganda that only aims at presenting the organisation nicely with little relationship to its activities.

As mentioned above a study that uses many manifestations is a generalist study that seeks to view the organisation holistically. Moreover, using many manifestations enables identifying any congruencies of interpretations of the manifestations as well as inconsistencies. In this research, all the manifestations mentioned above will be used. Section 4.4.3 provides the interview questions developed from them.

3.4. Conceptual Framework

When an organisational culture is studied, what the researcher is trying to understand and describe is the organisation's basic assumptions. An interpretive approach like Martin's (1992) would be better to decipher an organisation's culture. However, a

methodological problem exists in using such a model alone in this comparative study (prior and post culture study). The dilemma is about whom to interview prior to and post the development and deployment of the performance measurement system. Would the researcher interview the same people in the post that he interviewed in the prior study? Would he choose completely new people? Would it be a mix – new and old? If the researcher chooses new people he might get completely different responses in the post from the prior. This will surely indicate a change in culture, but in fact it might be a different group whose basic assumptions he missed in the prior study. If he chooses the same group their beliefs might change knowing that he is interested in the performance measurement used in the school. Surely the researcher will choose a mix for the post culture study, but he will get different messages. Therefore, the use of a questionnaire as a census prior and post the development and deployment of performance measures will help drawing up a more accurate picture of the schools' cultures.

The use of a questionnaire will help in overcoming the sampling dilemma, however another issue arises which is what to base the questionnaire on. If the researcher bases the questionnaire solely on the findings from the interviews he might need to develop two sets of questionnaires, which will not be an issue practically. However, the problem lies in the possibility of having two vastly different questionnaires as the group interviewed prior and post have different beliefs. If he does develop two questionnaires how would he be able to compare them (i.e. comparing apples and bananas). Therefore, he needs to have a baseline for the comparison that also incorporates the findings from the interviews.

Schein in his model (Three Level) described categories of basic assumptions. The basic assumptions he described are very broad and holistic. Therefore, they will be chosen and adapted based on the interview findings as the baseline for comparison between the prior and post development and deployment of performance measurement system. The researcher depicted the culture onion (Figure 11) to represent how both models are integrated.
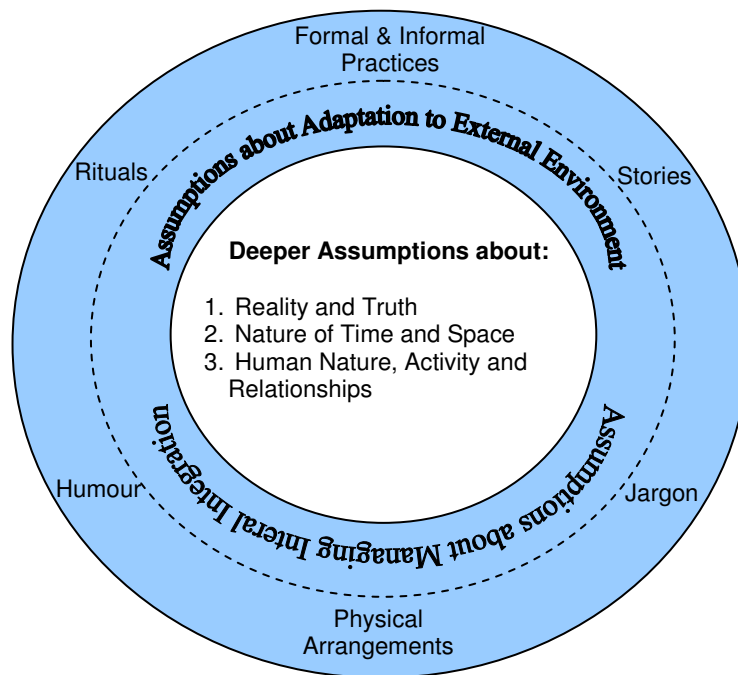
Figure 11: The Organisational Culture Onion

3.5. Conclusion

This chapter presented the five cultures' schools of thought based on the two broad classifications of the concept: Culture as a Variable and Culture as a Root Metaphor. It also provided examples of the principal frameworks within some of the schools that most studies of cultures are spurred from. The emphasis was on the implications of each school, and what culture theorists study in each school and the frameworks within them.

Culture as an independent variable was discounted for this research. Personal factors are suspected to influence the organisation's beliefs and values and hence a number of independent variables were used in the questionnaire (discussed in the methodology chapter).

Culture as an internal variable; the corporate culture camp is useful in comparative studies. However, as this research is exploratory in its nature and tries to examine possible changes to the organisation culture as a whole this camp could be constraining as it generally focuses on two elements of culture. On the other hand,

culture as an internal variable; the organisation culture camp is broad in nature and is adapted for this research to supplement Martin's (1992) theory of looking at organisations from three perspectives: integrationist, differentiation, and fragmentation. The researcher is guided by his belief that organisations' cultures are understood from the eyes of its people as will be discussed further in the philosophical stance in the methodology chapter. However, for reasons of full inclusion (representation) of the organisations' participants in knowing their beliefs, avoiding influence on participants, ensuring consistency when comparing the pre, post, case and control data, and for triangulation purposes Schein's framework is used for its breadth advantage over the corporate culture camp.

The researcher, in the chapter, clearly favoured Matin's framework. In a section guided by Martin (2002), the researcher summoned what cultural scholars claim to investigate when they study organisational culture. He links them with Schein's basic assumption in the conceptual framework used to asses the cultures of the schools.

Chapter 4 will elaborate on how these frameworks are used in assessing the culture and how the data obtained using them are analysed.

4. Research Methodology

4.1. Introduction

Chapter one explained what is the focus of this research. Chapter two reviewed the literature regarding the impact of performance measures on organisational culture highlighting strongly that there is a need for further research in the field, but from a different perspective and using different methodology. Chapter three reviewed the different theories for assessing organisational culture and made clear the choice of theories that will be used in this thesis. This chapter aims at putting this research into action.

Research methodology and methods always receive great attention from supervisors and students alike. Probably it gets the most attention of all aspects of research. It is, to a great extent, the training all of us as research students acquire to become successful researchers. Perhaps this is why supervisors and examiners focus on it. As we are being trained on specific methods we are taught how to justify the use of the different approaches. All methods have strengths and weaknesses, which are capitalised on by the research questions and investigation components i.e. there is no best approach, but in most occasions the research questions overweigh one technique compared to others. Therefore, prior to justifying and explaining how the different methods are used in this research, it is important now to engage the reader here through the research questions:

1. How would introducing a performance measurement system impact on organisational culture?

2. What culture manifestations (practices and forms) and basic assumptions (cultural themes) would change with the introduction of a performance measurement system?

3. To what degree would the culture manifestations and basic assumptions change?

4. How can lessons for practice be drawn out from developing and deploying the Performance Measurement System in a government department in the Middle East.

To make it simple to the reader to understand how this research was conducted the next section provides the research plan summary in pictorial form. In a logical order the chapter will then talk about the different social science philosophical paradigms, and the philosophical stances chosen. Section 4.4 will explain broadly the research strategy while its subsections explain in detail the different techniques used, the details of, and selection process of, the case and control organisations. Section 4.5, will talk about the research ethics whereas section 4.6 will look at the questionnaire validation. Section 4.7, will explain how the pre-test and pilot tests were conducted and their findings. Section 4.8, and its subsections will explain the qualitative and quantitative different analytical methods and the reliability of the findings.

4.2. Research Plan Summary

The approach developed (shown in Figure 12) allows the obtaining of a sharper sense of impact by comparison with a comparable (Control School) organisation.

The philosophical stance taken in this project is action research (for developing the performance measurement system) and interpretivist (for assessing the organisational culture), both resembling a quasi-experiment methodology.

One organisation was chosen to be the case organisation where a performance measurement system was introduced. The second organisation acted as a control setting i.e. no intervention. A prior introduction to the performance measurement system culture assessment using semi-structured interviews and a questionnaire was conducted in both organisations. The Balanced Scorecard - the performance measurement system chosen for this project - was then introduced in the case organisation. The main reason the Balanced Scorecard framework was chosen is its popularity as well as its simplicity as a framework. In 18 months time from the design, the post culture assessment using both semi-structured interviews and questionnaire took place. The results of the assessments were compared (post and prior) separately for each organisation, and then the results of the comparison were compared with the other organisation. By comparing post and prior the researcher hoped to notice cultural differences/changes in the case organisation and eliminate the effects of external factors on the organisations themselves.

The use of semi-structured interviews was aimed at discovering the organisations' basic assumptions and any changes in them after the introduction of the Balanced

Scorecards whereas the main purpose of the questionnaire was to define the degree of those changes, triangulate the findings, and cover the organisations' populations.
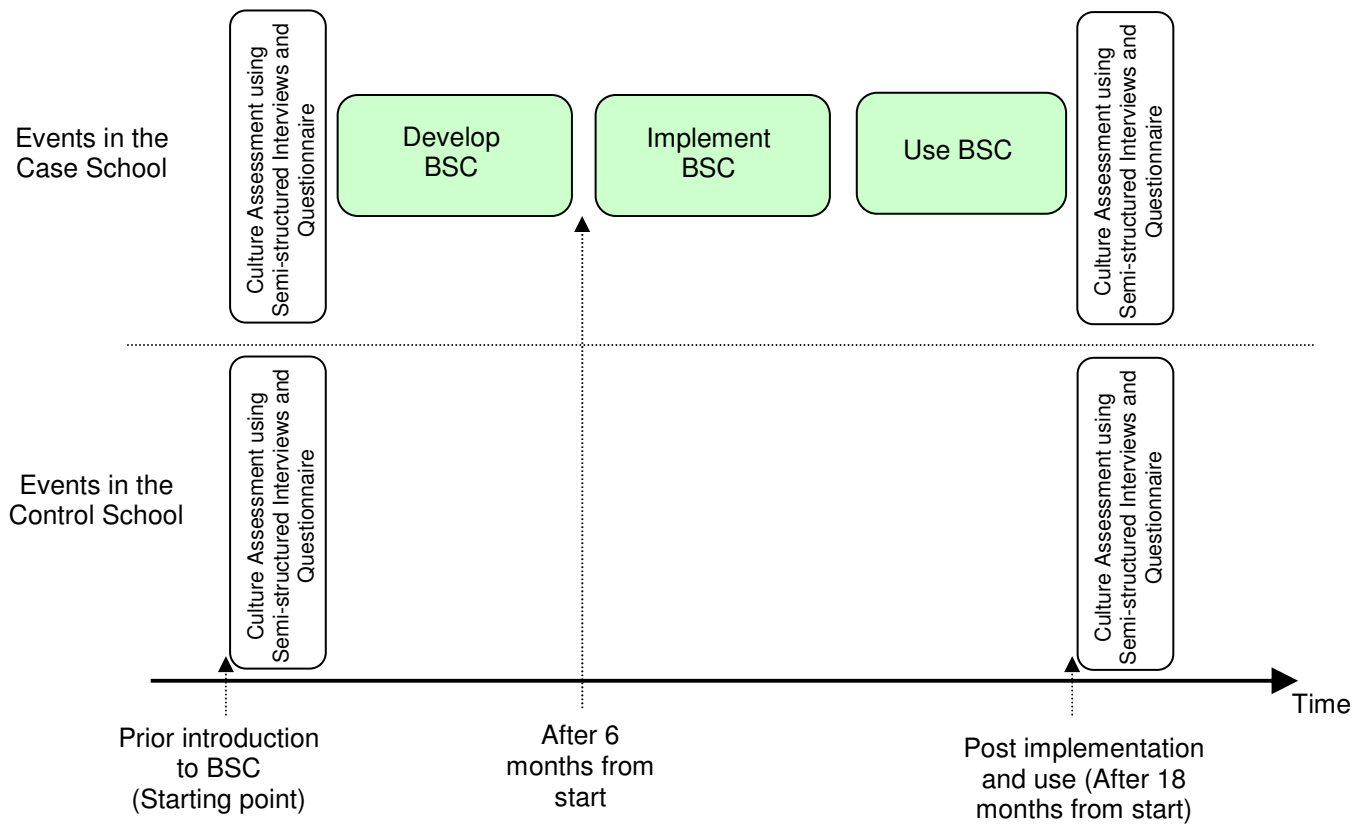
Figure 12: The Unfolded Project Plan

4.3. Research Philosophy

4.3.1. Social Science Research Paradigms

Kuhn (1962) in his famous book "Structure of Scientific Revolutions" was the first to coin an accepted definition for the term paradigm. He used it to describe the progress of scientific discoveries, the majority of which, in reality, happen in a series of tiny steps to advance the field, but occasionally experiments produce results that do not fit existing models or theories requiring a change to the way we view the world (Easterby-Smith et al., 2002). "A paradigm may be viewed as a set of basic beliefs (or metaphysics) that deals with ultimates or first principles. It represents a world view that defines, for its holder, the nature of the "world", the individual's place in it, and the range of possible relationships to that world and its parts, as, for example cosmologies and theologies do" (Guba and Lincoln, 1994). This definition by Guba and Lincoln

emphasises that a paradigm is the foundation or lens that we as individual makes sense of our world through. Burrell and Morgan (1979), frequently cited in organisation culture and organisation theory researches, were among the first to propose four paradigmatic classifications based on two sets of basic assumptions. The first set of assumptions is concerned with the "Nature of Social Science" whereas the second with the "Nature of Society".

Four sub-assumptions fall under the nature of social science and these are: (1) Ontological assumptions about whether "reality" is external to the individual consciousness or the product of his/her consciousness i.e. the reality is objective or subjective; (2) Epistemological assumptions concerned with the ways used to understand and inquire into the world around us and how to communicate it to others i.e. whether knowledge is "hard and tangible" or "soft and subjective based on one's experience and insights"; (3) Human nature assumptions, which are concerned about the way humans are viewed as either responding in a mechanistic or deterministic fashion to factors of the external environment i.e. humans as the product of their environment or creative and creator of their environment; (4) Methodological assumptions, which are guided by the other three assumptions and concerned with a combination of techniques (methods) used to inquire about the situation under investigation.

The second set of assumptions is concerned with "Regulation" and "Radical Change". The assumptions about Sociology of Regulations are concerned with providing explanations about the unity and cohesion in society, paying particular attention to the whys that explain how society holds together. Radical Change assumptions on the other hand are concerned with explaining the radical changes and the deep-seated structural conflicts, modes of dominations and structural contradictions (Burrell and Morgan, 1979, Saunders et al., 2003), and adapting a critical perspective on organisational life (society).

Burrell and Morgan's four paradigms are shown in the two-by-two matrix in Figure 13. The **Functionalist** paradigm as its position shows is based on the objective and regulatory assumptions. Researchers in this paradigm seek to find rational explanation for the organisational (or societal) status quo, order, and consensus. The outcomes from this paradigm's researches are supposed to be pragmatic aiming at generating knowledge that can be put to use. The **Interpretive** paradigm ('Social Constructionism'

as called by Easterby-Smith et al) is based on the subjective and regulatory assumptions. Researchers in this perspective try to understand the meanings attached to organisational life according to the different people (individually or collectively). Attention is normally paid to ways of communication and transcending of meanings, in particular how the different individuals perceive different meanings from the same events. Researches in this paradigm produce understandings and explanations of what is going on (Bryman, 2004). The **Radical Humanist** paradigm shares with the interpretive paradigm its subjective approach to social science. However, it adapts a radical change (critical perspective) towards organisational life. Researchers working in this paradigm would aim at changing the status quo and transcending the limitations of the existing social arrangements. The **Radical Structuralist** paradigm according to Burrell and Morgan (1979) advocates a sociology of radical change (emancipation) from an objective point of view, trying to identify law-like explanations.

THE SOCIOLOGY OF RADICAL CHANGE

Radical Humanist	Radical Structuralist
Interpretive	Functionalist

SUBJECTIVE — OBJECTIVE

THE SOCIOLOGY OF REGULATION
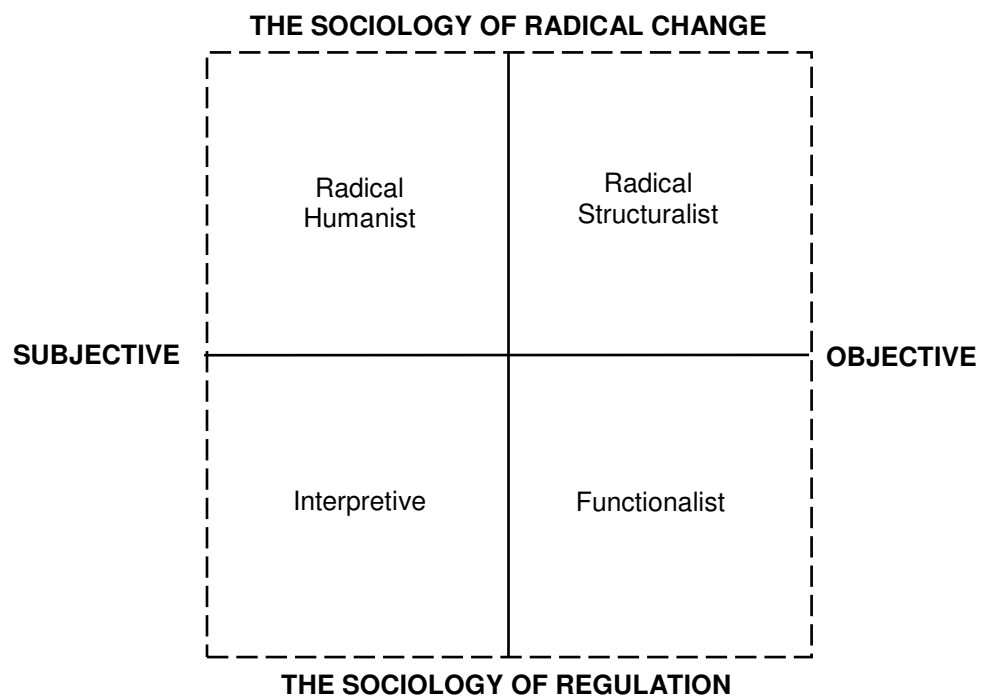
Figure 13: Four Paradigms for the Analysis of Social Science

Source: Burrell and Morgan (1979)

Note: the two sets of assumptions used in drawing the four paradigms are considered to be continuum rather than discrete states and the intersection between them is hypothetical. The researcher here stresses that one has not to consider the four

quadrants in the two-by-two matrix in Figure 13 as mutually exclusive, but instead overlaps exist between them. According to Dorfler (2009) a number of schools of thought (methodology) fall into more than one quadrant; existing, however, in a dominant matrix.

4.3.2. Philosophical Stance

Four objectives were set for this research. Three of them focus on the impact of introducing a performance measurement system on organisational culture and one on reflection on introducing the performance measurement system. The objectives related to understanding changes in culture and the ontological preference of the researcher encouraged his decision on the interpretivist (social constructionism) paradigm whereas the action research paradigm was chosen for introducing the performance measurement system.

The Interpretivist Paradigm

The researcher explained in the culture chapter that organisational culture could be understood using different schools of thought. He strongly believes that culture is understood through cultural participants – individuals and groups – within the organisation based on their consciousness and interpretations of the different practices and forms (Organisational symbolism school of thought). The researcher also believes that organisations could have different subcultures existing within the dominant organisational culture. Martin's approach to assessing culture is founded on the basis that organisations have integrated, differentiated, and fragmented cultures. Martin's framework will be used in this research as mentioned in section 3.4. Moreover, Guba and Lincoln (1994; 113) acknowledge " multiple 'knowledges' can coexist when equally competent (or trusted) interpreters disagree, and/or depending on social, political, cultural, economic, ethic, and gender factors that differentiate the interpreters." Furthermore, background, nationality, functional position, etc are believed to impact organisational culture as believed by Hofstede (1980), Martin (1992), Smircich (1983), Nasierowski and Mikula (1998), Schneider (1988), Hamden-Turner and Trompenaars (2000). Therefore, the researcher decided to base his investigation of organisational culture from this paradigm. Saunders et al. (2007; 107) support the decision taken here, arguing that the interpritivist paradigm is highly appropriate in "fields as organisational behaviour, marketing, and human resource management".

Radical Humanist / Action Research Paradigm

For implementing the performance measurement system, the researcher would firstly have to understand the social context and reinterpret it. Secondly, he would get involved in the change process. The understanding of the context from a subjective stance would place the researcher closer to the Subjective end (Burrell and Morgan; 1979, and Beech 2005) of the Positivist/Subjective spectrum. On the other hand, the involvement aspect in introducing the performance measurement system and playing a part in influencing different individuals' beliefs and perhaps actions, positions the researcher at the radical change (Burrell and Morgan, 1979, Beech, 2005) end of the Sociology of Regulation/Sociology of Radical Change spectrum. Thus, both arguments position the researcher in the Action Research or Radical Humanist paradigm.

Eden and Huxham (2006) defines this paradigm as "Research Oriented – Action Research requires both an involvement by the researcher with members of organisations over matters that are of genuine concern to them and over which they intend to take action, and most importantly, a primary commitment of the researcher to advance a field of knowledge in a manner that has some general implications". In this research, the researcher will work with the case organisation to develop a performance measurement system. The organisation is genuine in using a performance measurement system to help them focus their efforts and manage strategically. As stated above, this research paradigm will aim at shedding light on the phases of introducing a performance measurement system in this new context (as highlighted in chapter 1).

Level of Involvement of the Researcher in Introducing the Performance Measurement System and its Impact on the Research Paradigm Selection Decision

Guided by the research questions and governed by the philosophical stance, the researcher had to consider thoroughly the level of involvement in developing, implementing, and using the performance measurement system. He developed three scenarios based on three dimensions: degree of impact on organisational culture, probability of successful introduction of the performance measurement system, and type of involvement of the researcher as given in Table 3. These scenarios could also be reflected on the social science research paradigms matrix as shown in Figure 14. If the researcher followed scenario 1, he would definitely fit into the interpretivist

paradigm. If he followed scenario 3, he would be working solely from the action research paradigm. Instead the researcher followed scenario 2 by trying to split his research into an action research paradigm for the fourth objective and an interpretivist paradigm for the first three objectives relating to the impact on organisational culture. Working from two paradigms is unusual, but this is what the researcher believes would be the ideal paradigmatic choice for such researches.

Degree of involvement	Not involved	Moderately involved by providing guidance, trade offs between different methods/approaches for doing things, providing examples of possible consequences for actions	Very involved by directing the PM team to do only what I think is right, and involved in management meetings participating in the decisions taking process
Degree of change of culture	Low risk as culture will depend on the interaction of PM team, management, use of balanced scorecard, and people in the school	I don't know???	Very high risk of myself influencing change in culture
Success of implementing and using balanced scorecard	Low, but mainly depends on the team understanding the approach followed in implementation and use	I believe that there is a better chance of the PM team knowing what they should do to use the balanced scorecard	High. The use could be a result of power, which could in the long term lead to people losing interest and the balanced scorecard being considered a fad
Type of involvement according to the need/request of the PM team and the school	Passive	Reactive (although I'm proactive in checking at which stage the PM team is at so I prepare for providing the necessary guidance if I see deviation from the common approach)	Proactive involvement
	Scenario 1	**Scenario 2**	**Scenario 3**

Table 3 Hypothetical analysis of expected change in culture according to the level of involvement in introducing the performance measurement system

THE SOCIOLOGY OF RADICAL CHANGE

Scenario 3

Radical
Humanist

Radical
Structuralist

**Research Selected
Paradigms**

Scenario 2
PM Introduction

SUBJECTIVE

OBJECTIVE

Scenario 2
Culture
Assessment

Interpretive

Functionalist

Scenario 1

THE SOCIOLOGY OF REGULATION
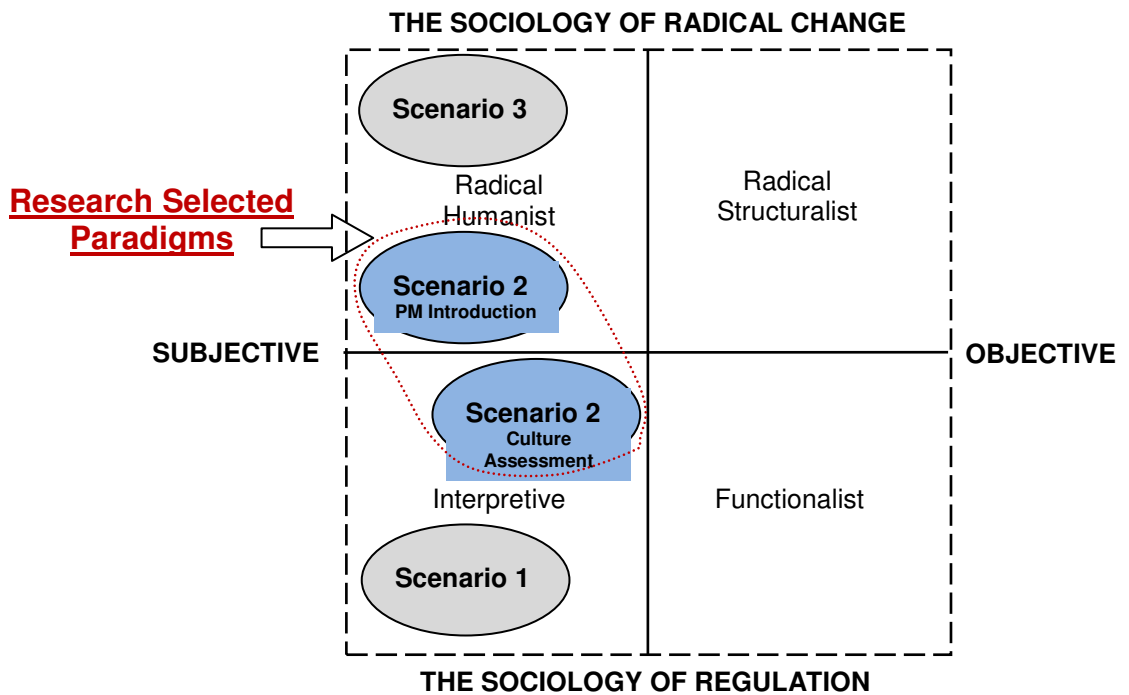
Figure 14: Social Research Paradigm Decision Scenario Analysis based on Level of Involvement in Introducing the Performance Measurement System and Culture Changes

4.4. Research Strategy

The research summary plan presented in Figure 12 was developed as a result of: (1) the research objectives; (2) The philosophical stance this research is driven by; and, (3) the shortcomings found in previous research on the impact of performance measurement on organisational culture. The research strategy could be split into two parts:

1. Developing and deploying the Performance Measurement System in the case School.
2. Describing the culture of two schools: Case School and the matched Control School prior to and post the development and deployment of the Performance Measurement System.

The need for a matched control group was determined because it would be difficult to attribute any differences between the prior-and-post cultures of the Case School to the Performance Measurement System deployment alone as there could be other external influential factors that could cause the change between the cultures, (Oppenheim,

1992). The Case and Control Schools are described in subsection 4.4.1 with their selection process.

For each part of the research a number of methods will be used as shown in Table 4 below.

	Method			
	Semi-structured Interviews	**Diary**	**Workshops**	**Questionnaire**
Part 1	√ one-to-one	√	√	
Part 2	√ one-to-one & Group	√		√

Table 4: Anticipated Methods for the Different Research Parts

The methods used in part 1 will answer question 4 of this research whereas the methods used in part 2 will answer questions 1, 2 and 3. It is the researcher's belief that the methods above have particular strengths offering advantages in comparison to other methods in achieving the objectives of the research with the necessary depth of understanding. Each method is described separately below with their strengths, weaknesses, reasons for selecting them over other methods, and how some of the methods' weaknesses are overcome.

4.4.1. The Case and Control Organisations

The case and control organisations are government run Secondary Technical Education schools. Aljabria (Case) and Jid Hafs (Control) are two of four schools (Sheikh Khalifa Institute and Sheikh Abdulla Bin Isa School are the other two schools) run by the Technical Education Directorate – the only body providing Technical and Vocational Education at a Secondary Education level in the Kingdom of Bahrain. The Technical Education Directorate is one of six educational directorates managed by the Assistant Undersecretary for General and Vocational Education.

One might ask why those Bahrain schools were chosen. The main reason was ease of access. The researcher being an employee and a student sponsored by the Ministry of Education of Bahrain, specifically the Directorate of Technical Education, was

privileged with ease of access to all schools run by the Technical Education Directorate. He also had a detailed knowledge of the Ministry of Education, Technical Education Directorate, the schools and the educational environment in general. Moreover, he had the advantage of knowing the language together with an understanding of the way the project's participants live. Other reasons include being able to ultimately benefit the Case School and the Directorate he worked for with the knowledge acquired through the research.

The four schools were looked at from different perspectives in order to identify those most alike for the case and control selection. The six criteria used for the purpose of comparison were: Stability of Operation, Leadership Style, Length of Time the Management Served in the School, Number of Sections and Specialisations, Geographical Location of School, Intensity of Behavioural Issues, and Delegates' Visits.

'Stability of Operations' is about how smoothly the school runs its day to day business and was deemed important for the introduction of the performance measurement system while keeping other influences to a minimum. 'Leadership Style' can not be ignored ; having consistent leadership is seen as crucial to ensuring high buy-in and momentum is continued and external influences are minimal. 'Length of Time Management has been Serving in the School' implies how the changes that a new leader would typically bring in might be sustained and might over shadow the impact of introducing the system. 'Number of Sections and Specialisations' might impact on the composition of possible internal groupings and subcultures. As to 'Geographical Location' close proximity of schools reduces the variability due to regional values and beliefs. 'Intensity of Behavioural Issues' and 'Delegates' Visits' are important factors pertaining to minimising disruption of the school routine, and therefore were considered important for the successful introduction of the performance measurement system and for its sustained use. The fewer issues and visits, the less disruption there would be. Table 5 presents a comparison summary of the four schools with detailed commentary following it.

	Shaikh Abdulla	Shaikh Khalifa	AlJabria (Case)	Jid Hafs (Control)
Stability of Operations	Most unstable school and was split into 2 schools	Newly opened to replace Muharraq School. Has 2 Business Units of the Technical Education Directorate	Always operated as a Technical School. No change in the past few years	Always operated as a Technical School. No change in the past few years
Leadership	New Headmaster. Intense guidance provided from the Technical Education Directorate	Laissez-faire leadership style and authority is dispersed	Consistent Headmaster with good social skills	Headmaster advocates system use and was involved in the pilot introduction of the SQA Quality System in the Technical Education Directorate
Length of Time the Management Spent in the School	New Headmaster, less than a year	2 years in the new institute, managing Muharraq School before that	2 years	2 years
Number of Sections and Specialisations	13 sections. Additional to Jid Hafs are Office Equipment, Carbody Repair and Plumbing	14 sections. Additional to Jid Hafs are Printing, Telecoms, Computer Maintenance and Plumbing	12 sections. Additional to Jid Hafs are Plumbing and Carbody Work	10 sections
Location	Isa Town	Muharraq	Manama (Capital)	Jid Hafs (considered within the capital)
Intensity of Behavioural Issues and Delegate Visits	• Has the most problematic students in Bahrain • Many delegate visits	Newest establishment and hence under the spotlight with many delegate visits	• Established in 1984 with minimum delegate visits • Better behaved students from the surrounding villages	• Established in late 70s and minimum delegate visits • Better behaved students from the surrounding villages

Table 5: Case and Control School Selection Criteria

1. Stability of Operations: Shaikh Abdulla School was known to be the messiest school out of the four. Prior to the conduct of the research the school had a commercial education unit and a technical education unit, which the Ministry decided to split into two separate schools. Therefore, some of the staff had to stay in the Technical School and others had to go to the Commercial School (Shaikh Abdulla Bin Ali), which is run by the Commercial Education.

   Shaikh Khalifa Institute comprised a Technical Education School, replacing Muharraq School, and the Centre of Excellence, which is a new business unit of the Technical Education Directorate. The Institute was recently opened and the School and the Centre within its walls had to share almost all the resources available. This in effect led to conflict between the management of the centre and the school and their full time staff. Aljabria School and Jid Hafs School ran as Secondary Technical Education Schools since their openings and had no operational issues or conflicts associated with other Education Directorates or business units of the Technical Education Directorate.

2. Leadership: Shaikh Abdulla School had a new Headmaster who was promoted within a couple of years from a Head of Section to Deputy Headmaster to a Headmaster. The Technical Education Directorate was providing a lot of guidance to the management of the School to deal with arising issues. In addition the Technical Education Specialist were continuously visiting the School for audits and to provide guidance for improvement. Shaikh Khalifa Institute's Headmaster had a Laissez-Faire leadership style. Authority was dispersed between different individuals, which made the researcher question the suitability of introducing the PMS in the Institute. Jid Hafs Headmaster was a very systematic person. He had a master in Quality and led the pilot introduction of the Quality Management System in the Technical Education Schools in the late nineties and early on in this decade. Aljabria School Headmaster was consistent throughout his career as a Headmaster. He was known for his social skills and firmness.

3. Length of Time the Management has Served in the School: In Aljabria and Jid Hafs the management served for an equal period of time (2 years). The Headmaster of Shaikh Abdulla School as mentioned previously was new whereas the Headmaster of Shaikh Khalifa Institute managed the institute since its opening and was managing Muharraq School before that.

4. Number of Sections with Similar Specialisations: The three schools had similar number of sections and specialisations. However, the Institute had the Centre of Excellence (different business unit) and other sections like printing, Computer Maintenance and separate Telecommunications Section.

5. Geographical Location: The four schools are geographically dispersed in Bahrain except Aljabria and Jid Hafs Schools. Shaikh Abdulla is in Isa Town, Shaikh Khalifa Institute is in Muharraq. Aljabria in Manama and Jid Hafs is in Jid Hafs town adjacent to Manama. The closeness of Aljabria and Jid Hafs geographically means their staff and students are from the same wider boundary, which means their regional beliefs and values will be similar.

6. Intensity of Behavioural Issues and Delegates Visits: Shaikh Abdulla School students come from Isa Town and Riffa towns which are known for being a source for maverick students. Dealing with students' behavioural issues takes a lot of efforts from Shaik Abdulla School as they usually seem to fire fight. The School is also close to the Ministry of Education's headquarter and quite often targeted for quick visits by delegates enquiring about the Bahraini Education System. Shaikh Khalifa Institute is the newest establishments of the Ministry of Education and hence also under the spot light and visits by delegates. The other two schools are the oldest out the four and their students come seem to be better behaved. The schools days are quite routine and not usually interrupted by either major students' issues or delegates' visits.

Based on what was presented in Table 5 and described above Aljabria School and Jid Hafs School are the most similar and therefore were selected to be the Case and Control Schools.

The Director of Technical Education recommended Aljabria to be the Case as he believes its management would be more collaborative. The researcher also considered other factors such as he worked in it when he took his first job in the Ministry of Education and hence understands how the school used to work then. Moreover, he has good relationships with the people in the school, which he believes is crucial for the development and deployment of the performance measurement system. Therefore, he decided to choose Aljabria as the Case and Jid Hafs as the Control setting.

Both schools have ten common technical specialisations/sections: Electronics and Telecommunications, Electrical, Air-Conditioning and Refrigeration, Technical Drawing,

Mechanics and Problem-Solving, Automobile, Diesel, Welding, Machine-Shop, and Carpentry. However, Aljabria has two more specialisations/sections: Car Bodywork and Plumbing. Furthermore, both schools have eight common academic sections: Arabic Language, Religious Studies, English Language, Mathematics, Physics, Contemporary Issues, Physical Activities, and Computers.

Beside the core sections responsible for teaching there are four techno-sections: Social Guidance, Registration, Quality Assurance, and Vocational Guidance. There are also three administrative and support sections: Administration, Library, and Stores.

Aljabria and Jid Hafs Schools have about 250 and 153 staff respectively.

4.4.2. The Role of the Researcher in the Case School and the Events Timeline

The role of the researcher in the intervention in the Case School was minimal. He acted as a consultant to the school working only with the Performance Measurement Team (PM team). The researcher did not impose anything on the team and in fact the initial strategy map and Balanced Scorecard that were developed at the start of the field work were modified by the PM team based on their understanding of the framework. The PM team prior to the researcher's presentation about the Balanced Scorecard had no knowledge of performance measurement systems. He met the PM team in July of 2006 almost on a daily basis to develop the Balanced Scorecard. He provided the PM team with reference material and even translated some material into Arabic to help them better understand the framework. Chapter 5 investigates the different approaches used in developing performance measurement systems, details how the Balanced Scorecard was developed and provides the strategy maps (Figure 24 and Figure 25) and the Balanced Scorecards (Table 17 to Table 21) developed. Moreover, it explains how the PM team implemented the system and presents the guide which was provided to the PM for the use stage.

In October 2006 the researcher visited the PM team to provide guidance for implementing the Balanced Scorecard. During the same visit, the researcher administered the pre-culture assessment questionnaire. In February 2007, a visit was conducted to audit the implementation of the PMS in the school and provide guidance about the use of the PM. In September 2007, the researcher visited the school and PM team to audit the remaining measures, discuss with the team the limitations encountered, and ways to address them for the year to follow. At the end of the visit,

the post-culture assessment using interviews and questionnaire was conducted. Figure 15 shows a timescale of PM events, the timing of culture assessment, and the events which occurred in the school during the period of the research.

The school's academic year and events within it

- Open day 1st May
- Timetable changes and Preparation for Sheikh Khalifa Prize (Sept)
- End of semester exams 25th Dec-17th Jan
- Mid term exams 1st-12th Apr
- End of semester exams 19th May-3rd Jun
- Start of 2nd Semester 9th Feb
- Visits by MoE's Headmasters to school 1st May for a week
- Re-sits exams 16th-25th Jun
- Start of Academic Year (4th Sept)
- Start of Academic Year (4th Sept)
- End of semester practical exams 18th-25th Dec
- The school won Sheikh Khalifa prize 20th Mar
- End of semester practical exams mid May

Culture assessment phases

- Administered Q'aire 5th-15th Nov
- Conducted Culture Interviews End of Oct – End of Nov
- Conducted Culture Interviews End of May – End of June
- Pilot Q'aire 29th-31st OCt
- Administered Q'aire End of Oct

Performance Measurement Development through use stages

- Student survey implemented 19th-end of Nov
- Removed redundant measure End of Mar
- Meeting with HoS, committees & teachers 19th-end of Nov
- Team finished analysing student's Q'aire 20th Mar
- Meeting with management 26th Jun
- Development Electronic Q'aire End of Oct-Mid of Nov
- Meeting with management 19th May
- Design of PM End of June & July
- Team finished analysing staff's Q'aire 27th Feb
- Development of Students and Staff Q'aire End Sept-Mid Oct
- PM Audit 10th Feb
- Student survey implemented 17th May
- PM Audit 9th Sep

June 2006   Dec 2006   June 2007   Dec 2007

Figure 15: Timeline of Performance Measurement Introduction, Cultural Assessments, and Events in the school during the period of the research

4.4.3. Semi-Structured Interviews

Jones (1985) in Easterby-Smith et al. (2002; 87) emphasised that qualitative interviews of which semi-structured interviews are part, give an understanding of "how individuals construct the reality of their situation formed from the complex framework of beliefs and values, which they have developed over their lives in order to help explain and predict events in their world". However, for this to happen, the interviewer should be sensitive and skilled enough to enable a smooth flow of conversation, and to assist the interviewees in exploring their own beliefs by asking the right questions.

Semi-structured interviews provide the researcher with the opportunity to probe the interviewee's answers, asking for elaboration, and justification. This becomes very important when the researcher tries to find meanings that the interviewees ascribe to events and artefacts that they hold as the basis for their beliefs, (Easterby-Smith et al., 2002, Saunders et al., 2003).

Moreover, semi-structured interviews allow the interviewer to jump between the different questions to follow interesting lines of inquiry and facilitating unbroken discussion.

Semi-structured interviews were used by eminent researchers (Sapienza, 1985, Martin et al., 1985, Schein, 2004, Johnson, 1987, and Phillips, 1990) in studying organisations' cultures in-depth according to Sackmann (1991); this significantly influenced the researcher's decision to use this method for the investigation on hand.

Group Interviews

In addition to the positives of semi-structured interviews mentioned above, group-based semi-structured interviews permit a group dynamic in which each member triggers further thoughts and issues in the others' minds, Milkman (1997) in Bryman and Bell (2003). However, for an effective dynamic to occur, two kinds of skills will be required for the interviewer to possess as described by Easterby-Smith et al. (2002) ; initiation skills that are concerned with establishing and creating rapport prior to the discussion, and facilitation skills to guide the discussion and to allow sufficient airtime for each respondent. Lacking any of these skills could lead to poor data to be collected as the discussion might be directed by the most projective person in the group.

For part 1 of the research, a one-to-one interview was conducted with the Director of Technical Education. He was asked four broad questions, which are presented in Table 6. The findings from the interview were used in facilitating the workshops for developing the Balanced Scorecard.

1. As the school constitutes a part of the Technical Education Directorate what do you expect it to deliver and achieve?
2. How do you think the school should achieve these goals? Or, What actions should the school take to deliver what they are supposed to deliver?
3. How would you know that the school is performing well?
4. What information would you like to see so you can make a judgement about the school's performance?

Table 6: Questions the Director of Technical Education was asked

For part 2 of the research, twenty interviews were conducted in each school – ten in the prior and ten in the post. The ten interviews at each stage and in each school were a one-to-one interview with the headmaster, and nine group interviews. The interview groups were selected based on *purposive homogenous sampling* process that focuses on one particular subgroup in which all sample members are similar (Saunders et al., 2003). See Figure 16 for illustration of the subgroups in the school. Each group interview in the pre stage consisted of four respondents selected randomly from the appropriate subgroup, except in the deputy headmasters group as there are only two deputy headmasters. For the post culture study, ten interviews were conducted again in each school; a one-to-one interview with the headmaster and nine group interviews. The number of respondents in each group is similar to the prior study and the respondents again were selected randomly. Nonetheless, this time not from the whole school, but instead half the respondents from the prior culture study and the other half from the school (i.e. respondents had not been selected previously). Refer to Appendix 1 for the list of interviewees for the prior and post phases for both schools.
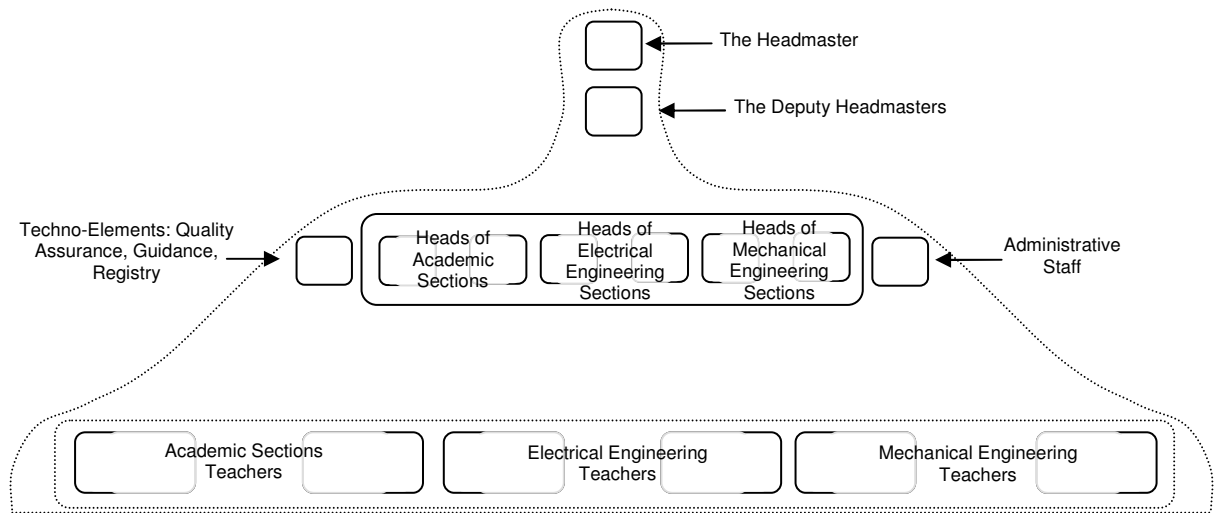
Figure 16: Interview Groupings *(Each label indicates a group/individual interview)*

The interview questions were developed from the culture manifestations described above in section 3.3. Table 7 below presents the questions used in the interviews.

Forms	Practices (Formal and Informal)
Rituals	Organisational structure and communication structure
Stories	Task and Technology
Humour	Rules and Procedures
Jargon	Financial and other controls
Physical Arrangements (Architecture, Décor, and Dress)	Rewards and reward systems
The word Form below is used just for summarising the questions, but in the interviews, questions were asked about each individual manifestation	*The word Practice is used just for summarising the questions, but in the interviews, questions were asked about each individual manifestation*

a. What are the forms performed/told in the school?
 	
 b. Can you describe a form from those you listed? Or, can you describe the ritual A, B, or C?
 	
 c. Ask for the meaning of the form, e.g.
 	
    a. What message does it send?
 	
    b. What does this mean to you (in your own words)?
 	
    c. What lessons do you take away from this?
 	
    d. Why do you think it means this (i.e. the form)?
 	
 d. Is the meaning of the form clear to all participants?
 	
    a. What does the form mean to others? Or, think it means to others?
 	
    b. Who do you think agree with you on the meaning? And who disagree?
 	
    c. Why do you think those see a different meaning?
	1. How would you describe the practice?
	
	 2. What are the implications for having this practice? What does this practice mean to you?
	
	 3. Why do you think so?
	
	 4. Who do you think agrees with you?
	
	 5. Why do you think they do (i.e. share the same meaning of the practice)?
	
	 6. Who do you think disagrees with you?
	
	 7. Why do you think they disagree (i.e. what different picture/meaning do they comprehend from the practice)?

Table 7: Culture Interviews Question Summary

There are a number of constraints associated with the use of semi-structured interviews and these are as follows:

1. Method of data capturing

   Three approaches are used in general in capturing data from interviews: (1) using a tape recorder, (2) the interviewer taking notes him/herself, and (3) hiring/inviting someone to take notes. The second and third approaches are discounted. Taking notes could reduce the focus on following up the interviewees' responses therefore missing description and possibly meanings. Whereas, hiring someone to take notes during the interview could cause discomfort and a possible feeling of lack of privacy by the interviewees especially when the interview questions involve sensitive questions about beliefs and feelings. In addition there is the cost associated with hiring someone.

   The use of a tape-recorder in this research is advantageous because it will allow a full focus on the interviewees' responses plus the fact that the recoding

will be available for further reference and analysis. However, there is a risk of failure of the tape-recorder, which could be minimised by checking the tape-recorder prior to each interview. Moreover, the use of a tape-recorder could make the interviewees uncomfortable, although this could be overcome by informing them about the intention for using a tape-recorder prior to the interview so the interviewee prepares himself mentally. Moreover, interviewees can be put at ease by creating a rapport through chatting about family, friends, hobbies, prior to embarking with the questions, etc.

2. Transcribing the interviews

   Transcribing the interviews is a tedious and time consuming exercise. The process could be made less arduous by spreading the work over a longer period of time while doing other work.

3. Reliability of the data analysis

   Unlike quantitative methods where data analysis is to some extent mechanistic and consistent regardless of who analyses it. In qualitative data, the analysis could differ from one person to another. A good approach to ensure the reliability of the data analysis is to have a colleague cross-check. (Miles and Huberman, 1994). The reliability of the data analysis was conducted with the assistance of three colleagues as described in section 4.8.1.

4.4.4. Workshops

A Workshop is a group interactive discussion in which the participants attempt to solve or come up with suggestions for, a problem faced by the participants and their organisation. The idea behind workshops is to bring all participants' ideas and issues into the open thus increasing the participants' awareness of each other's issues and as a result the likelihood of taking on board the different issues to be considered in the decision process. If workshops are facilitated correctly all participating members should have an input to the decision without worrying about any organisational politics or their views being suppressed.

A workshop could be either a tool for action or a tool for research. For the former, as the name entails (tool for action) the workshop is set up and facilitated to bring issues, suggestions, strategies, etc for taking an action in the organisation or, for example to develop a system. Researchers like Kaplan and Norton (1996), Wisniewski and

Dickson (2001), Eden and Ackermann (1998), Neely et al. (2002), Ackermann et al. (2005) used workshops in this fashion extensively in developing strategy maps and performance measurement systems.

In the latter type (workshop as a research tool), the workshop is set up and facilitated to reveal the participants' understandings of their reality. For a researcher, a workshop is a substitute for a number of interviews, advantaged by being a collated set of data. Schein (2004) and Belton (during a supervision meeting) are two of the theorists who suggested the use of workshops in this way.

As highlighted at the beginning of this section, workshops are used in this project as an action tool and not a research tool for two pragmatic reasons. The first is that the researcher does not have experience in using workshops as a research tool and could not compromise with time to learn the method due to time constraints. The second reason is the inevitable difficulty in getting a large number of participants released from duty at one time to participate in the workshops because of rigid timetables.

Although the focus groups method has not been mentioned in a dedicated section in this report, it is crucial to briefly differentiate it from workshops and group interviews. Focus groups as a research method originated from market research. However, it has been adapted in the last century in politics to define what the public wants. In a focus group session, a group of individuals participate to discuss a topic or a theme. The approach differs from group interviews and workshops in that group interviews and workshops are facilitated throughout by the facilitator. In the group interview, the facilitator (interviewer) asks the questions and prompts each individual interviewee for a response. Likewise in workshops ; however, as mentioned previously there is a tangible output from a workshop (collated data of some form) as compared to interviews. A focus group on the other hand facilitates itself. The role of the facilitator is only to kick start the discussion by presenting the topic or theme of interest to the participants. The participants then guide the discussion themselves. Focus groups are useful for exploring a theme or a topic with an open mind for results as opposed to pre-expected categories/results like in interviews that are based on predefined guiding questions. Focus groups were not used in this project because this research has clear objectives, and specific questions to define meanings rather than exploring possibilities/dimensions which is normally the main aim of using focus groups.

4.4.5. Diary

Diary as a method has different meanings in business research; therefore, the researcher thinks it is crucial to make a distinction between the diary's different uses before reasoning his decision for selecting a particular method of use. According to Bryman and Bell (2003) diaries are used in the following manners:

1. As a method of data collection

   In which the researcher asks a sample of diarists to keep a diary about their everyday work or certain events during that time. The degree of structure or freedom of collecting data in the diaries is a matter specified by the researcher and that is based on her/his epistemology and data analysis technique. Using diaries in this way has a number of advantages. Firstly, it provides an emic i.e. insider/employee view of the organisation. Secondly, it allows a large number of diaries to be compared and contrasted simultaneously. Thirdly, the method isolates the researcher from the data collection process (i.e. not being involved in the data collection after the initial set up) so he/she can collect data using different approaches.

   For this research, diary will not be used in this manner for a number of reasons. Firstly, for a confidentiality reason, as it would be difficult to convince a sample of the staff of the schools of the confidentiality for their participation. Secondly, the cost of the approach in terms of time and effort of participants. Thirdly, the time required from the researcher to provide instructions to participants for writing the diaries. Finally, the large amount of data that the researcher could end up with and the efforts that would be required to analyse it.

2. As a document

   Diaries are written by the diarist as their personal description and reflection of their context, and are not based on the request of the researcher. A diary written in this form could shade into autobiography according to Scott (1990) in Bryman and Bell (2003) if it is written for wider consumption and publishing. Autobiographies/biographies have been used in the study of organisational culture such as that of Martin and Siehl's (1983) study of General Motors (GM).

   Using diaries or autobiographies in this research is not feasible because there are no diaries or autobiographies for any of the school's members. A major

shortfall of using diaries/autobiographies as a method in culture studies is that autobiographies are mainly written by top managers of organisations describing and reflecting their views. For a culture study a researcher intends studying an organisation's beliefs and values as a whole as well as any differences between any grouping beliefs and values. In order to do that he/she would also require to study lower ranked employees' diaries/autobiographies, which do not exist in almost all organisations.

3. As a log of the researcher's activities

   In which the researcher keeps a log of his/her activities at different stages of the research. Diaries as a log of the researcher activities is often used by ethnographers and participant-observers when writing either their mental or jotted notes. Notes written in these diaries would include detailed summaries of events, behaviours and the researcher's initial reflections on them.

   For part 1 of this research, a diary was used as a log of the research activities to document the processes that were followed in developing and deploying the Performance Measurement System. In particular documenting the design, implementation, use, and refresh phases as well as writing any reflections on these processes.

   For part 2 of the research, a diary was used again as a log for the research activities when taking the role of interrupted-involvement participant observer that is summarised and contrasted in Table 8 with other participant-observer roles. The summary in the table is based on Easterby-Smith et al. (2002) classification, which is a modification of Junkers' (1960) original scheme.

	Researcher as Employee	Research as Explicit Role	Interrupted Involvement	Observation Alone
Researcher Involvement	Researcher working within the organisation along others as one of them as in ethnography	Have a role of researcher, who can move around, observe, interview, and participate in the work as appropriate	Unlikely to contain actual participation in work. Is a combination of observation and interviews	The researcher avoids sustained interaction with those under study
Types of data collected	Qualitative	Qualitative	Quantitative, Qualitative or both	Quantitative
Time of involvement	Several months	Several months	Present sporadically over a period of time – moving in and out the organisation to deal with other work, interviews, observations in different organisations	Depending on the event or practice being observed. A day or few days at most
Role of Researcher (Overt or Covert)	Could be either, but mostly covert	Overt	Overt	Overt
Ethical Issues	High ethical issue as employees of the organisation don't know about the researcher	The employees know about the researcher as they would possibly negotiate with him/her the degree of access	Access is agreed with management and researcher would have to negotiate with employees interviews conduct	Access is agreed although employees dislike it as they feel the researcher is snooping ; they don't form a relationship with the researcher nor trust him

Table 8: Participant-Observer Roles

4.4.6. Questionnaire

There are strengths and weaknesses in every method of research. Incorporating different methods will conceal the weaknesses and consolidate the strengths. The use of semi-structured interviews and a diary when taking interrupted involvement participant-observer role allocates this research nearly at the end of the deep end of uncovering cultures in organisations continuum (See Figure 17 below).

"Outsider" Perspective (Etic)					"Insider" Perspective (Emic)
Deductive					Inductive
Concepts are Introduced					Concepts Emerge
Researcher as Onlooker					Research as Participant
Questionnaire	Structured Interviews	Documentary Analysis	Group Discussion	Semi-Structured Interviews	Participant-Observations
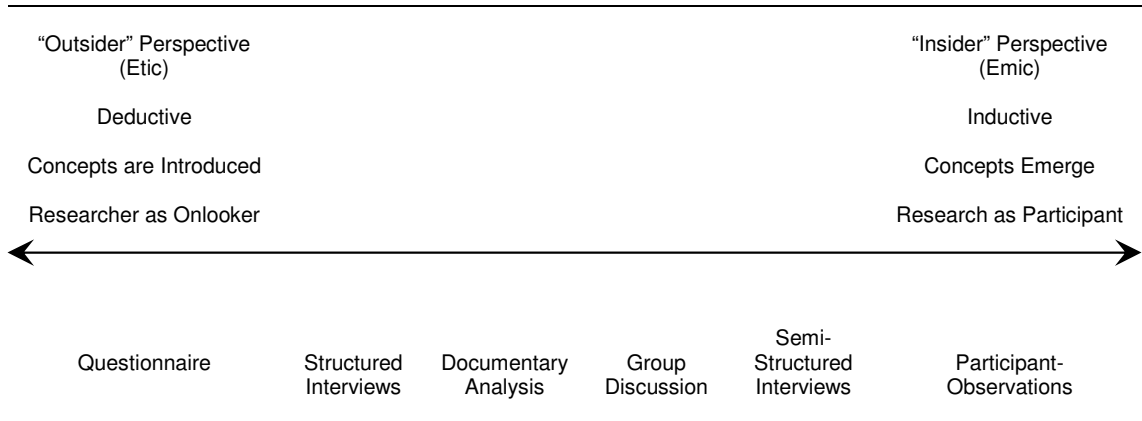
Figure 17: Approaches for Uncovering Culture in Organisations and their Degree of Depth
(Source: Adapted from Sackmann (1991) Uncovering Culture in Organisations, Journal of Applied Behavioural Science, Vol. 27 No 3.)

"A questionnaire is a technique of data collection in which each person is asked to respond to the same set of questions in a predetermined order", (Saunders et al., 2003; 280). Questionnaires are used in two categories of researches: descriptive and explanatory/analytical researches. Questionnaires used in explanatory/analytical researches attempt to deal with association and explain cause-and-effect relationships between variables. On the other hand, questionnaires used in descriptive research are intended to count, describe and identify the variability in different phenomena such as public-opinion polls and organisational practices questionnaires, attitude questionnaires, etc (Oppenheim, 1992, Saunders et al., 2003). Based on the questions set at the outset of this research the questionnaires were used here to describe the Case School and the Control School prior, and post the implementation and use of the Performance Measurement System.

Two main types of questionnaires exist, self-administered (also called self-completion) and interviewer-administered. The difference between the two types is that, as the

names entail, in the self-administered questionnaire there is no interviewer to ask the questions and the respondents have to read and answer the questions themselves. In the interviewer-administered questionnaire, the interviewer asks the questions and records the respondent's answers. In this research, self-administered questionnaires were used as a census to identify the different cultural groupings (if there were any) and to concretise the findings from the two methods (semi-structured interviews and diary). The questionnaire was the best method to draw complete pictures of the two schools' cultures as the questionnaire was distributed as a census. Moreover, it acted as baseline for assessing the cultures of the schools at two different points of time, consistently assisting in overcoming the sampling dilemma (for the semi-structured interviews of whether to interview the same participants in the prior study in the post study or should new participants be interviewed) and consequently the findings dilemma (mentioned in more detail in section 3.4).

Furthermore, Figure 16 highlights that the sample for interviews is based on functions. However, subcultures within organisations exist because of differences in functions, nationalities, background beliefs, etc. Constructing a sample (for the interviews) to cater for the different nationalities, and ethnic groupings, etc would have been inappropriate as it would raise questions of racial and background differences among the staff of the school. Using a questionnaire will help overcoming this issue as the questionnaire will be administered as a census.

More general reasons to use questionnaires in the schools are as follows:

1. Cheaper to administer as it would save the researcher from travelling to Bahrain and to the schools for an extended period.

2. Quicker to administer and saves time for the researcher. By sending the questionnaires to the schools and while waiting for their return he will have time for other work in the department of management science. The time saved will enable him to meet the tight schedule set for the completion of the research.

3. No meeting scheduling is required. Arranging meetings with everyone in the school could be an impossible task as everyone has a timetable, duties in committees inside and outside the school and contacting them to arrange a meeting would be costly both in terms of time and financial outlay.

4. In interviewer-administered questionnaires there is a possibility that the interviewer's characteristics would bias the respondent's answer. Sudman and Bradburn (1982) in Bryman and Bell (2003) suggest that self-administered questionnaires reduce the possibility of bias when a question carries a possibility of such bias. Moreover, Tourangeau and smith (1996) in Bryman and Bell (2003) found that "respondents are less likely to under-report activities that induce anxiety or about which they feel sensitive in self-completion questionnaires than in structured interviews (interviewer-administered questionnaire)". The same will also apply to group interviews. This will be important in this research as the questions asked are sensitive questions about beliefs and feelings about the schools, their managements, and behaviours within them.

The researcher developed the questionnaire (attached to this document in Appendix 2 in both English and Arabic) based on the understanding of Schein's basic assumptions described earlier in Chapter 3 (subsection 3.2.3). He depicted his understanding in the maps included in Appendix 3. Moreover, he used the findings from the preliminary analysis of the interviews (based on twenty interviews) to assist in complementing the options within Schein's sub-dimensions and customising the questionnaire to the school contexts. Figure 18 shows the flow of the key steps in developing the questionnaire, data analysis, and how the questionnaire findings were triangulated with qualitative findings. The number of sections highlighted in red points to where a detailed explanation of the particular step can be found.

The problem with self-administered questionnaires is how to ensure that the respondents will return them. To overcome this problem, the questionnaires for the prior and post studies were sent to the schools through the Directorate of Technical Education which emphasised to the population the extreme importance of returning them. Moreover, two colleagues (Technical Education Specialists) were asked to follow up the distribution and collection of the questionnaires.

The use of more than one method (triangulation) (Eden and Huxham, 2006) is advocated and encouraged in social science research and was used in organisational culture studies by Barley (1986), Deacon, Brymann, and Fenton (1998), Gundry and Rousseau (1994), in Martin (2002), and by many more, which all made the researcher believe that the methods used in this research would produce rigorous findings.
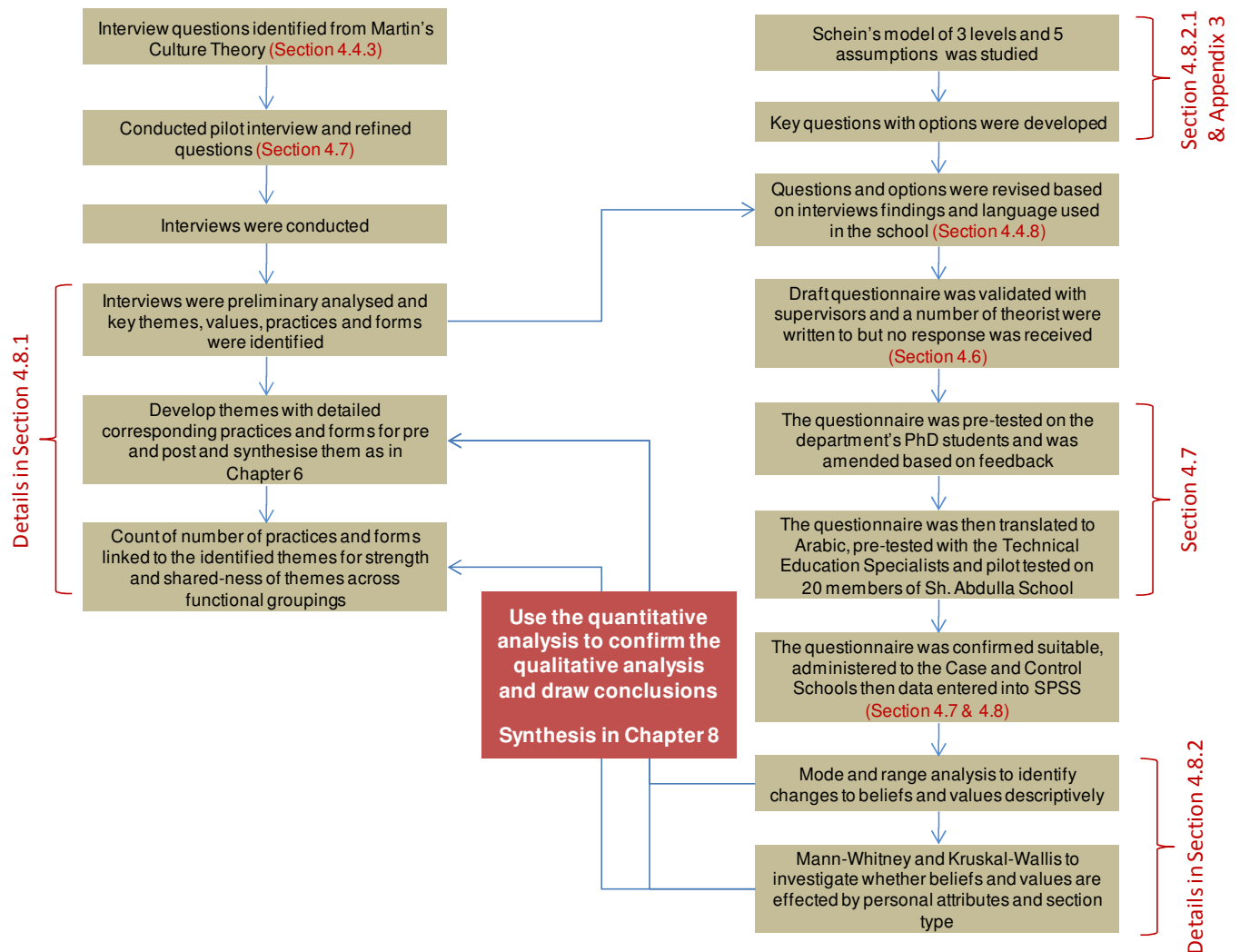
Figure 18: Key Steps Followed in Questionnaire Development, Analysis and Findings Synthesis

4.5 Research Ethics

Dealing with ethical issues was stressed at the outset of this research. The supervisors of this work ensured that the researcher followed the University's ethics requirements in the different stages of this research. The Technical Education Directorate approval was obtained for conducting this project on its schools and assisted the researcher in contacting the Case School to demonstrate the idea of the project (See Appendix 4). Interview informants were told why they were interviewed and what would happen to the data they provided (See Appendix 4). Questionnaire respondents were also informed of the purpose of the questionnaire and how their responses would be dealt with (See page 2 of the Questionnaire – Appendix 2)

4.6. Questionnaire Validation

The researcher wrote to a number of culture theorists for the purpose of validating the questionnaire (see appendix 6 for letter). Unfortunately, however, no response was received except from Prof. Joanne Martin who apologised for not being able to help with the validation. Prof. Martin believes (as the researcher discussed earlier) that the use of questionnaires would make the study more of a specialist study. The theorists contacted are listed in Table 9.

Culture Theorist Name	Institute
Prof. Edgar Schein	Massachusetts Institute of Technology (MIT)
Prof. Joanne Martin	Stanford University
Prof. Kim Cameron	University of Michigan
Dr. Peter McInnes	University of Strathclyde

Table 9 Theorists sought for Validation

Due to deadline pressure, the researcher had to proceed with the pre-test and pilot at the beginning of the school academic year.

4.7. Pre-test and Pilot Study

The researcher interviewed in Arabic, and using the interview questions as a pilot interviewed a Bahraini friend of his who was studying at the time in Glasgow. The researcher immediately observed that the interviewee did not always understand the questions or in some cases the interviewee required further clarification. The researcher asked the interviewee "How did you find the interview questions?" and "Why?" as a follow up question. "The questions are too theoretical" was the interviewee's response. Based on this input the researcher used simpler terminology that could be more easily understood.

As a second step, and prior to conducting the interviews, the researcher checked the wording of the questions with a colleague in Bahrain. Minor changes were then made to the questions based on the discussion.

For the questionnaire, the researcher pre-tested the English version with the PhD students in the department. He gave the students a few questions to bear in mind while

they were completing the questionnaire. The questions are presented in Table 10. Valuable comments were received and the questionnaire was modified accordingly. Prior to going to Bahrain, the Arabic version of the questionnaire was already prepared (Appendix 2). The researcher met with the Senior Education Specialist whose Arabic writing skills are known to be the best in the Directorate. The researcher spent some time with him amending the Arabic version of the questionnaire. Then the Arabic version was pre-tested on the Technical Education Specialists; it was found to be easily read and understood.

How long did it take you to fill in the questionnaire?
How easy did you find it to fill in the questionnaire?
What makes the questionnaire difficult to fill in?
Are there any ambiguous questions?
What do you think could be done to improve the questionnaire?

Table 10: Questions for the Pre-test and Pilot

For the pilot study the researcher planned to have two focus-groups from the other Technical Education Schools. However, this was not possible due to the staff's examination invigilation commitments. Instead the questionnaire was distributed to twenty members of staff from different levels in Sheikh Abdulla School (one of the other schools run by the Directorate of Technical Education) and they were asked to fill in the questionnaire based on their understanding of how their school works. Their responses were collected and they were asked how they found the questionnaire based on the questions he used on the pre-test (Table 10). No changes were made to the questionnaire following the pilot as the questionnaire was understood by all the participants in the pilot.

4.8. Data Analysis

Data analysis is the process of making sense of the data collected either qualitatively or quantitatively. This dissertation involved the collection of both types of data as mentioned earlier. In this section both types of data analysis will be described, followed by the analysis technique used in this research and reasons for choosing them, some

examples when appropriate, and reflexivity in qualitative analysis will be briefly discussed.

Prior to embarking on describing the different data analyses, however, it is crucial to emphasise the key objectives of the analyses in answering the research questions:

1. Identifying the key themes that emerged or changed,
2. Identifying the salience of the themes,
3. Identifying the degree of shared-ness of the themes in the Case School in the post assessment in comparison to the pre assessment,
4. Comparing 1, 2 and 3 with the findings from the Control School.
5. Comparing manifestations including beliefs and values pre and post, across the schools, and across the different functional groups and in relation to the Control School.

4.8.1. Qualitative Data Analysis

"Although qualitative studies are rich in descriptions of settings, people, events, and processes, they often say little about how the research got the information, and almost nothing about how conclusions were drawn". (Miles and Huberman, 1994; 281). Moreover, Tesch (1990) in Croswell (1994) highlights "The process of data analysis is eclectic; there is no "right way".".

The process of data analysis according to Miles and Huberman (1994) consists of three activities: (1) data reduction – is the process of selecting, focusing, simplifying, and transforming transcripts and field notes; (2) data display – consists of organising, summarising the key findings for conclusion drawing; (3) conclusion drawing and verification. These three activities are interwoven and form an interactive cyclical process where the researcher repeatedly moves from one activity to another. Other scholars like Taylor-Powell and Marcus (2003) define the process of analysis in five steps as an expansion of the Miles and Humarban broad process.

Regardless of which process one uses, the key to successful research is that the road used in achieving the conclusions must be clear to others. "Documentation must be meticulous to ensure that 'the footsteps in the sand' can be traced clearly". (Lynch, 2007). The next few sections describe the key processes used in obtaining the findings and drawing the conclusions.

4.8.1.1. Data Preparation

In this research forty culture interviews were conducted (twenty interviews in pre and twenty in post). The interviews were transcribed into Arabic during each stage as it was the language used for the interviews. An archiving mechanism was set to ensure safekeeping of data and separation from pre to post, case from control, and for the different informant groups. Each transcript was given a unique code and mapped to the recording of the interview.

4.8.1.2. Inter-coder reliability

Definition and coding become sharper when more coders agree on coding the same piece of transcript. Therefore, the process of inter-coder reliability was conducted prior to coding all interviews. For the cross-checking, four different individuals coded a full interview transcript (22 pages). Agreement – defined by coding the same piece of text with the same code, and disagreement – defined by coding the same piece of text by two or more coders with different codes, were compared. Table 11 below shows the number of agreements and disagreements between the coders. Whereas Table 12 presents the coding reliability, which was computed using the following reliability equation:

Reliability = number of agreements / (total number of agreements + disagreements)

	Agreement				Disagreement			
	Interviewer	Coder 1	Coder 2	Coder 3	Interviewer	Coder 1	Coder 2	Coder 3
Interviewer		15	15	13		7	8	6
Coder 1	15		12	11	7		7	8
Coder 2	15	12		13	8	7		5
Coder 3	13	11	13		6	8	5	
Total Aggregate	**30**				**12**			

**Table 11: Number of agreements and disagreement between coders**

	Agreement			
	Interviewer	Coder 1	Coder 2	Coder 3
Interviewer		68 %	65 %	68 %
Coder 1	68 %		63 %	57 %
Coder 2	65 %	63 %		72 %
Coder 3	68 %	57 %	72 %	
Aggregate reliability	**71 %**			

**Table 12: Percentages of agreements and disagreement between coders**

To improve the coding, a discussion with the coders based on the reliability percentages computed identified the following reasons for disagreements:

1. Misinterpretation of code definition by the coders, which necessitated re-writing the code definitions based on input from the coders. As Miles and Huberman (1994) highlighted that each coder has his own preferences and Johnson (2004) emphasised in an MBA lecture that each individual sees the world through his own frame.

2. Omission or oversight in coding happened when the coder failed to apply the code to a relevant piece of text.

3. The coder not understanding the contextual background to a piece of text. For example, when informants mentioned in one interview a historical moment in the school involving a practice.

In addition to the inter-coder reliability check, the researcher carried out an intra-coder reliability check in which he coded the same piece of text in two different intervals. The intra-coder reliability was 77 %. Compared to Miles and Huberman (1994) recommended reliability figure (80%). This achieved value is considered satisfactory.

4.8.1.3. Content Theme Analysis

Martin (1992; 37) defined content themes as "common threads of concern that are seen as manifest in a subset of forms and practices. These themes can be deliberately espoused to an external audience (e.g. when a corporate objective of fostering innovation is publicised). Content themes can also be internal, either espoused deliberately (such as, when a president declares that "conflict should be openly confronted") or they may emerge as tacit, deeply held assumptions (e.g., the unstated presupposition that financial planners must take a long-term perspective)."

The general concept of analysis used in this research depends on connecting the different forms and practices that shared the same meaning into a content theme. As the method for analysis used, the researcher first identified the different forms and practices into the categories that were described in the literature review. Then he coded these practices and forms using pattern coding.

Pattern coding to Miles and Huberman (1994; 69) "is a way of grouping those summaries (i.e. segments of data) into a smaller number of sets, themes, or constructs". Codes could be identified based on a conceptual framework (i.e. priori codes or organisational categories as Maxwell (2005) calls them) or based on inductive approach like in grounded theory (Gibbs and Taylor, 2005). In this research codes were identified inductively and based primarily on the interviewees' responses about the meanings of forms and practices. The process of identifying the codes involved reading and rereading the transcripts to ensure understanding the data and capturing the meaning that informants were assigning to it. A total of 31 themes were identified with corresponding opposites and confusion themes to represent the differentiated and fragmented views of culture. For the full list of themes refer to Appendix 7. The list changed during the coding of the interviews as some themes were not evident in the first interviews analysed. This change in the themes necessitated revisiting the interviews' transcripts over and over when new meanings were observed. This process was anticipated as observed by Easterby-Smith et al. (2002) when comparing quantitative and qualitative analyses that in qualitative analysis (specifically grounded theory) the structure for analysis is derived from the data whereas in quantitative analysis the structure is imposed on the data

After identifying the codes for the manifestations and the final list of codes for the different themes, each interview was then coded with the two codes as shown in the example below.

Formal Practice

> The vocational guidance used to provide some information to our students before going for their industrial training. However, not all our students are allocated in industries. Therefore we are instructed by the Technical Directorate to organise internal training i.e. in the students' sections in the school. A student's behaviour could be one of the reasons the Directorate can't allocate him in a company. For those students who are being trained in the school there is lack of follow-up and we don't know if they are gaining the skills and attitudes of the workplace therefore this committee helps in doing this. It also prepares the students who were allocated in companies for their training. (The Deputy Headmaster)

Concern for Students

4.8.1.4. Presenting the data

This section explains how the findings based on the objectives stated at the beginning of the "4.8. Data Analysis" section are presented.

Salience and Shared-ness Analysis (Analysis Objective 1, 2, 3 & 4)

Following the identification of the themes, the next goal of the analysis was to measure the salience of the themes and their shared-ness across the different functional groups. Boyatzis (1998) describes five approaches for analysing and describing qualitative findings with numeric representations: (1) Nominal – is concerned with determining the category (coding option) in which the unit of analysis falls into; (2) Presence/Absence – is about determining the presence or absence of the theme. Scores will be given to both presence of a theme or its absence. A different scoring value will be given based on the desirability of either the presence or absence of the theme; (3) Frequency conditioned on the presence or absence of a particular theme leading to the coding of other subthemes. In this approach a base theme has to exist (as present) prior to coding the subsequent themes, which add up to constitute part of a total of 1 score for the main theme; (4) Frequency without the condition of presence or absence with the use of interval scale rather than ordinal. This type of coding requires having a normal distribution and that the total number of units of coding examined for each unit of analysis has sufficient instances of the phenomenon to be coded; (5) Intensity scoring – is similar to the Frequency without the condition of presence or absence scoring; however, the difference is conceptual or theoretical than empirical. For example, factors relating to the length of piece of text (or tone as in narrative analysis) coded may be used to indicate the intensity of the theme.

For identifying the salience and shared-ness in this research, nominal was used. All manifestations related to a theme were used to represent the theme. To identify the changes in percentages of salience, the representations of themes (i.e. number of manifestations related to a specific theme) were totalled and percentages were calculated accordingly (Driskill and Brenton, 2005) as follow:

Salience of Theme = (total number of manifestations representing a particular theme / total number of manifestation for all themes * 100).

This equation was used for investigating all themes in the culture as well as investigating the themes shared by a specific functional group. The salience of the themes was compared as in Figure 28 and Figure 29 (Chapter 6).

Salience and shared-ness for the different functional groups were represented using Bar Charts (Figure 30 to Figure 33 – Chapter 6).

Note: Boyatzis (1998) points out that in intensity scoring bias could arise from the different lengths of the interviews (or transcripts). The researcher also believes this could happen in nominal scoring. However, this bias will not be applicable in this research as all interviews took about an hour and a half (group interviews involving 4 interviewees) except for the Headmaster and Deputy Headmasters as they took an hour. This difference in the length of interviews is compensated through extra airtime for the informants.

Comparison of Manifestations across the schools (Analysis Objective 5)

Martin (1992), Martin (2002) used a matrix to represent the cultures studied. This approach is ideal when presenting a small number of practices and forms, but when minute details are required to identify changes in culture the same representation was not suitable and hence improvisation was required. Maps as highlighted by Miles and Huberman are a good way to represent large and interconnected codes. Therefore, for each theme the researcher created a map to encompass all the manifestations related to theme (Figure 35 to Figure 47). He used colour coding to distinguish between the different practices (formal and informal), forms (stories, rituals, jargon, and physical arrangements), and espoused values and beliefs. Figure 34 provides the legend for the maps created. Moreover, the maps were shaded using two colours: (1) Red – representing the pre-stage manifestations; (2) Blue: representing the post-stage manifestations; the overlap indicates the common manifestations between pre and post. Furthermore, codes were created to distinguish the different informant groups and the pre and post stages. The codes listed in Table 22 were used in each concept of the maps presented in the findings chapter.

4.8.1.5. Reliability and Reflexivity

Martin (2002) argues that in qualitative research, quantitative evaluation criteria such as reliability, validity, and bias avoidance are less relevant. Reflexivity is a more relevant evaluation criterion to qualitative research and in particular to culture studies. It aims at bringing to the surface the many assumptions that are left unsaid or asserted as truth (Chia, 1996, Clifford and Marcus, 1986).

Martin (2002; 225) defines reflexivity as "the need to write in the first person (I) – to analyse how the eye of the beholder affected what was seen". Ostensibly reflexivity

seems to show how the researcher influenced the outcome of the research; however, it in fact increases its credibility (Maxwell, 2005).

To this account I (the researcher) provide a description of myself in this research.

> "I am Bahraini, graduated from a Technical School and then sponsored by the Technical Directorate to the UK for my undergraduate education in Engineering. Upon my return I took a teaching post in Al Jabria School (Case School). On my return I was seen as the first of a new breed, as the pilot for the Directorate's new policy for improving the education system. I progressed and succeeded in further training and in 2002 was transferred to the Head Office as a Technical Education Specialist and Project Manager. During my term in the Head Office in an autocratic directorate I had positional power as well as social power. I was respected for who I was and for my accomplishments and my enthusiasm to improve and develop the Directorate. Moreover, I was still seen as the Directorate's 'trainee'. Expectations of me were high from one perspective, but there was envy from another. Coming back to do my research in the Directorate raised many questions regarding the authenticity of the data that will be collected and I believe many in my position in this region and developing countries will be in a similar position."

4.8.2. Quantitative Data Analysis

One key difference between quantitative and qualitative research is that the process of data analysis is distinct from the data collection (Easterby-Smith et al., 2002). Prior to the data collection, the variables and type of data to be collected are known to the researcher. Three types of data in quantitative research exist: (1) nominal or categorical – data that cannot be measured numerically or ranked, but can only be classified into categories; (2) ordinal – data that can be placed in order; and (3) interval – data that indicates the difference between two distinct values and uses an arbitrary reference point to establish this difference.

Using the questionnaire, quantitative and qualitative data were collected. Two types of quantitative data were collected: categorical, and ordinal. Moreover, qualitative data were collected through the semi-structured questions. Categorical data were collected

as independent variables about the respondents' personal characteristics, ordinal and qualitative data for the dependent variables about the beliefs and values. The Statistical Package for Social Sciences (SPSS) version 15 (initially) and 16 were used to analyse the data. A combination of descriptive (mode and range) and nonparametric statistical (Mann-Whitney and Kruscal-Wallis) analyses were used in analysing the quantitative data. The qualitative data were clustered and percentages were then calculated for the different comparisons.

Multi-methods were used in this research for two main purposes: (1) triangulation, (2) to ensure full representation of the populations of both schools (see section 4.4 in this chapter). It was mentioned previously in the culture chapter that many culture studies that use questionnaires focus on only two dimensions from which culture types are then drawn. This study sought to use a broad base of dimensions to avoid lack of comprehensiveness, which in effect led to having a large number of variables to compare. Therefore and prior to embarking on analysing the questionnaire the researcher had to decide as to whether he should analyse selectively only the values/beliefs that were stated in the interviews or analyse all values/beliefs in the questionnaire. The first choice would lead to a focused analysis and achieving triangulation, whereas the second would lead to full representation of the schools' participants, triangulation, and a more messy presentation of the findings. The researcher decided on the latter choice with the aim to present the findings as clearly as possible.

Five types of analysis were conducted as described in section 4.8.2.2 below; however, prior to describing them it is appropriate to present first the different variables used in the questionnaire.

4.8.2.1. The questionnaire investigation components

a. Cultural beliefs

The questionnaire was designed based on the five dimensions of assumptions proposed by the Schein organisational culture theory (Schein, 2004) explained in section 3.2.3. The five dimensions of assumptions and the sub-dimensions within them are as follows :

1. **Assumptions about External Adaptation Issues**
   a. Mission
   b. Means to get work done
   c. Goals
   d. Measuring Performance Criteria
   e. Means of Staff Performance Measurement
   f. Gathering information about performance mechanisms
   g. Repair strategies

2. **Assumptions about Internal Integration Issues**
   a. Communication and (Common Language)
   b. Groups (Group boundaries)
   c. Distribution of Power and Status
      i. Power
      ii. Status
   d. Rewards
      i. Reward for
      ii. Reward by
   e. Punishment
      i. Punishment for
      ii. Punishment by
   f. Norms of intimacy

3. **Assumptions about Space and Time**
   a. Distance and relative placement
   b. The symbolic of space
   c. The symbolic of resources

        d. Body Language

        e. Time orientation

        f. Monochronic and polychronic

        g. Planning time and development time

        h. Temporal symmetry pacing

4. **Assumptions about Reality and Truth**

        a. Physical reality or (External reality)

        b. Social reality

        c. Individual reality

        d. Moralism and pragmatism

        e. What is Information?

5. **Deeper assumptions about Human Nature, Activity, and Relationships**

        a. The nature of human nature

        b. Human activity (The doing orientation, the being orientation, the being-in-becoming orientation)

        c. Individualism and groupism

        d. Power distance

        e. Basic characteristics of role relationships

        f. Activity orientation

b. Personal (Independent) Variables

Fourteen personal attributes were thought of as possibly influencing the different beliefs. These attributes are:

1. *Nationality*
2. *Age*
3. *Whether the respondent always worked in the school or not*
4. *Years worked in the school*
5. *Whether or not the respondent has worked in other Technical Education schools*
6. The school that the respondent worked in previously
7. *The current job of the respondent*
8. *The section the respondent is working in*

9. *Whether or not the respondent is a member of a school committee*

10. The committee of which the respondent is a member

11. Whether or not the respondent is involved in a school committee

12. The committee in which the respondent is involved

13. Whether or not the respondent is involved in jobs authorised by the Ministry of Education outside the school

14. The type of job the respondent is involved in outside the school

Unfortunately not all the above personal attributes were used in the analyses as there were not enough data to enable the researcher to use them. Therefore, the researcher sufficed by using the eight *italicised* attributes above.

4.8.2.2. The analyses conducted

Non-parametric inferential statistics were adopted as the assumptions for the parametric statistics were not met. The analysis starts by investigating the difference between pre and post across the populations of the schools. Then it goes into details investigating the differences between the different sections, and follows with the differences among their members.

The other analysis conducted is descriptive analysis to investigate the changes that were not picked up by the statistical analysis.

How the different analyses were conducted is described below.

a. Descriptive Culture Analysis

This descriptive analysis was conducted for the schools as wholes. Modes and ranges were used in a systematic approach to identify if there were similarities or shifts in beliefs. The mode was used because it would identify if there was a shift in the majority's belief rather than taking the average or taking the median. This is how the analysis was conducted.

Mode Shifts

The modes for each school were compared pre and post. In appendix 13 the mode post is stated and by how much it changed from pre to indicate the change. When two modes existed their average was taken.

Changes in Range (Positive and Negative)

Percentiles were used to identify if the range changed. If the 25, 50, or 75 percentiles increased in the post analysis from the pre analysis the conclusion is that the belief shifted positively for any particular belief. However, if the percentiles decreased in the post analysis from pre the conclusion is that the belief has shifted negatively.

Similarities

Are absolute equals i.e. no change in neither the mode nor the range.

The findings from this analysis is presented in section 7.3 using the data shown in appendix 13.

b. Statistical Beliefs Comparison Prior and Post the Implementation of the Performance Measurement System within and across the Schools for the Schools as wholes

The Mann-Whitney test with a significance level $p < 0.05$ (also size of rejection region which is the default value in SPSS) was used to compare the distributions of each school and the two schools as follows:

1. Comparing the distribution of the Case School and the Control School prior to implementing the BSC.
2. Comparing the distribution of the Case School and the Control School post implementing the BSC.
3. Comparing the distribution of the Case School prior to and post implementing the BSC.
4. Comparing the distribution of the Control School prior to and post implementing the BSC.

The null hypothesis used in all tests is that the first set of data has the same distribution as the second i.e. in 1 and 2 above the distribution of the Case School is the same as the distribution of the Control School and in 3 and 4 the distribution of the post is the same as the distribution of the pre.

The findings from this analysis is presented in section 7.4.

Kruskal-Wallis test was conducted to test whether the section type of the respondents affected their cultural beliefs. The test was conducted with 101 cultural variables and the different section types.

As the Technical Education School run by the Technical Education Directorate has on average 20 Sections, the different sections were grouped into three main categories based on their broad-subjects specialisation (as shown in Table 13) and based also on how the staff of the Technical Education Directorate categorise the different sections within the schools. The three different sections types are: (1) Academic Sections, (2) Mechanical Sections, and (3) Electrical Sections.

Section/Subject	Section Type
Arabic	Academic
Automobile	Mechanical
Car Body Work	Mechanical
Carpentry	Mechanical
Computer	Academic
Contemporary Issues & Geography	Academic
Diesel	Mechanical
Electrical	Electrical
Electronics and Communications	Electrical
English	Academic
Machine Shop	Mechanical
Mathematics	Academic
Mechanics	Academic
Physical Activity	Academic
Plumbing	Electrical
Problem Solving	Academic
Refrigeration and Air Conditioning	Electrical
Religion	Academic
Science	Academic
Technical Drawing	Academic
Welding	Mechanical

Table 13: The different Sections within the schools and their classifications into Academic, Mechanical, and Electrical Sections

The Kruskal-Wallis test is like the one-way ANOVA test in that it does not detect which group among the groups is different (Field, 2005, Brace et al., 2006), therefore the Mann-Whitney test was conducted on pairs of sections to detect the differences between them. To detect the differences between the groups one needs to conduct

many Mann-Whitney tests, which according to Field (2005) could inflate the Type 1 error rate i.e. increasing it to more than 0.05. One method of overcoming this problem is using Bonferroni correction (Field, 2005), which is using a critical value for significance less than 0.05. Bonferroni correction is calculated by dividing 0.05 by the number of tests conducted. Therefore, the new significance value based on Bonferroni correction and having 3 tests to conduct (Academic Sections vs. Mechanical Sections, Academic Sections vs. Electrical Sections, and Mechanical Sections vs. Electrical Sections) is 0.05/3=0.0167.

The findings from this analysis is presented in section 7.5.

d. Exploring differences between the Different Groups within the different Sections

This analysis investigates whether the personal attributes of the staff of the different sections affect their beliefs. Six personal attributes were used in the Mann-Whitney tests across each type of section. These personal attributes are as follows:

1. Nationality: Bahraini and Egyptian staff were compared as they constitute the majority of the staff in the schools.
2. Committee membership.
3. Age: Junior (younger than 35) and Senior Teachers (35 and over).
4. Years worked in the school: less than 5 years and 5 years and over.
5. Whether or not the member of staff always worked in a school.
6. Whether the member of staff has worked in other Technical Education Schools or not.

Section 7.6 presents the findings from this analysis using the data shown in appendix 8 to 11.

e. Comparing Beliefs across the different Occupational Levels descriptively

This analysis aims to identify if the different occupational groups share similar beliefs (consensus), have opposite beliefs (differentiated), or have multiple meanings for each belief (fragmented). Due to the small number of respondents in each occupational level which is inherent in the flatness of the organisational structure (academic/professional structure) the findings here are based on descriptive statistics rather than inferential.

Therefore, it is important to state the number of respondents for each occupational group so the reader can have better understanding of the extent of representation. Table 14 presents the average number of respondents for each occupational group.

Occupational Group	Average number of respondents for the Case School		Average number of respondents for the Control School	
	Pre	Post	Pre	Post
Strategic Apex	1	1	0	0
Techno-Element	4	1	9	5
Middle Management	13	11	9	4
Support	1	1	2	3
Core – Teachers	95	89	77	51

Table 14: Average number of respondents in each occupational group in both schools pre and post

To identify the type of belief (integrated, differentiated, or fragmented) of the different occupational level, a subjective classification was made as follows:

- Integrated: if the modes of the different occupational levels are the same, there is 1 range difference between them, or the modes are all in the same direction and there is 2 range differences between them.
- Differentiated: if the modes of the different groups are in opposite poles.
- Fragmented: if the modes of the different groups span over 2 range differences or more and cross the neutral scale.

Section 7.7 presents the findings from this analysis.

4.9. Conclusion

This chapter clarified the different parts of this dissertation; action and research. The action involved developing the performance measurement system in the Case School whereas the research is concerned about assessing the schools' cultures. It talked about the minimal role of the researcher in introducing the performance measurement system and explained in detail how the culture assessment was conducted, analysed and its reliability ensured.

Qualitative and quantitative methods were adopted for the purpose of triangulation and to ensure full representation of the schools' populations. The qualitative data collection method included Semi-structured interviews and the use of diary. The interviews – both

individual and group – were conducted on a representative sample from the different occupational levels in the school. Pattern analysis and counts of presence of manifestations in interviews were the techniques used for identifying the changes in culture qualitatively. An extract of analysis was given to illustrate how pattern analysis was carried out. Moreover, the researcher explained the findings' presentations. Reflexivity as a mean for ensuring the quality of data in qualitative research was also talked about and an account from the researcher was provided.

For the quantitative part of the culture assessment a questionnaire was designed and administered to the populations of both schools pre and post. The data obtained from the questionnaire were analysed using non-parametric inferential statistics, specifically Mann-Whitney and Kruskal-Wallis. Moreover, the qualitative data from the questionnaire were analysed using cluster analysis based on similarity and then analysed through simple frequency measure. Reliability in quantitative methods was assured prior collecting the data through pre-pilot and pilot tests of the questionnaire.

The next two chapters present the qualitative and quantitative findings (in isolation) respectively. Chapter six presents the schools' cultures using "culture from multiple perspectives" theory. Chapter seven presents the quantitative findings of the schools' cultures based on Schein's basic assumptions theory. The discussion chapter will, in conclusion, bring the findings from the two finding chapters together.

5. The Case School Balanced Scorecard Development and Deployment

5.1. Introduction

The previous chapter discussed the philosophical stance taken in this research that dictated the researcher's level of involvement in the development and deployment of the Balanced Scorecard (table 3). Section 4.4.2 talked briefly about the researcher's role in developing the BSC and showed the line of events of culture assessment in conjunction with the introduction of the BSC.

This chapter is written specifically to give the reader a sense of the process used in introducing the BSC. How the PM team were involved and how they carried forward the system to be used in their school.

The chapter will review the literature concerned with performance measurement systems introduction. Different models will be presented and a synthesis of the key steps will be listed. Based on the decision taken in the methodology chapter, the design steps and output from it – Strategy maps, and Balanced Scorecards – will be presented. An explanation of the implementation will be provided and how the PM team were advocated on the use of the BSC.

5.2. Performance Measurement Systems Introduction Approaches

Organisations are varied – be they public or private, small, medium or large – and individuals involved in facilitating the introduction of performance measures in organisations are different too; therefore, one can expect a number of approaches that could be used.

Globerson (1985) for example was one of the first scholars proposing a model for introducing performance measures in organisations. His model consists of four stages: (1) choosing relevant performance measures (2) setting procedures to evaluate each measure (3) assign standard/target for each measure (4) set a feedback loop to respond to differences between targets and actual performance.

Keegan et al. (1989a) in their article "Are your performance measures obsolete?" set a number of guidelines for changing a company's performance measures. Firstly, they

question whether the performance measures derive from the company's strategy that is built around the customer needs and competitive position of the company. They assert that performance measures should be hierarchical and integrated across the business functions. Moreover, they stress that performance measures for employees at the lower level should be built on the organisation's strategic goals. They also emphasise that each employee should see how his/her work affects other employees' work and the overall goal. Second, is populating the developed measures for the organisation on Keegan's et al developed balanced performance measurement framework taking into account the balance and consequences for each measure being placed on the matrix ? Third, data relevant to the measures should be collected. Fourth, the data must be analysed. Fifth, the analysis must be reported against the set target and the company's strategy. Sixth, discuss the reports and make decisions based on the report discussion process. Lastly, performance measures should be instilled into management thinking to ensure that the company is measure focused.

Wisner and Fawcett (1991) developed a similar model to that of Keegan et al. (1989a) emphasising in addition the need for performance measures to be periodically refreshed in the light of the organisation's competitive environment. Figure 19 shows Wisner and Fawcett model.

```
┌──────────────────────────────────────────────────────────────┐
│  Clearly define the firm's mission statement.                 │
└──────────────────────────────────────────────────────────────┘
                              ↓
┌──────────────────────────────────────────────────────────────┐
│  Identify the firm's strategic objectives using the mission   │
│  statement as a guide.                                        │
└──────────────────────────────────────────────────────────────┘
                              ↓
┌──────────────────────────────────────────────────────────────┐
│  Develop an understanding of each functional area's role in   │
│  achieving the various strategic objectives.                  │
└──────────────────────────────────────────────────────────────┘
                              ↓
┌──────────────────────────────────────────────────────────────┐
│  For each functional area, develop global performance         │
│  measures capable of defining the firm's overall competitive  │
│  position to top management.                                  │
└──────────────────────────────────────────────────────────────┘
                              ↓
┌──────────────────────────────────────────────────────────────┐
│  Communicate strategic objectives and performance goals to    │
│  lower levels in the organisation. Establish more specific    │
│  performance criteria at each level.                          │
└──────────────────────────────────────────────────────────────┘
                              ↓
┌──────────────────────────────────────────────────────────────┐
│  Assure consistency with strategic objectives among the       │
│  performance criteria used at each level.                     │
└──────────────────────────────────────────────────────────────┘
                              ↓
┌──────────────────────────────────────────────────────────────┐
│  Assure the compatibility of performance measures used in all │
│  functional areas.                                            │
└──────────────────────────────────────────────────────────────┘
                              ↓
┌──────────────────────────────────────────────────────────────┐
│  Use the performance measurement system to identify           │
│  competitive position, locate problem areas, assist the firm  │
│  in updating strategic objectives and making tactical         │
│  decisions to achieve these objectives and supply feedback    │
│  after the decisions are implemented.                         │
└──────────────────────────────────────────────────────────────┘
                              ↓
┌──────────────────────────────────────────────────────────────┐
│  Periodically re-evaluate the appropriateness of the          │
│  established performance measurement system in view of the    │
│  current competitive environment.                             │
└──────────────────────────────────────────────────────────────┘
```

Figure 19: Wisner and Fawcett Model for Developing Performance Measurement Systems
Source: Wisner and Fawcett (1991: 9)

Similarly, Armstrong (1994) presents in his book "Performance Management" the performance management process as a continuous self-renewing loop that embraces five main stages: (1) role definition; (2) performance contract; (3) development plan; (4) managing performance; and (5) performance review. At the process outset the purpose, accountabilities, and key capabilities required from the role holder are defined. Further, consensual agreement should be achieved regarding the target level of performance, how the stated performance standards/targets are going to be measured, the extent to which capabilities have to be leveraged, and how leveraged capabilities would be assessed. Once all the stages are developed the performance management system is considered ready for daily operation organisation-wide during which its effectiveness and suitability should be closely monitored by management.

Inherent in the approach is a virtues loop that will allow continuous update to become an embedded part of the system.

As the Balanced Scorecard gained popularity Kaplan and Norton recognised the need to clarify how their performance measurement system could be introduced in organisations. They initially set a process of eight steps in their article "Putting the Balanced Scorecard to work", which was then developed into four phases combining ten steps in their book "The Balanced Scorecard – Translating Strategy into Action" (Kaplan and Norton, 1996). Santos (2004) summarised Kaplan and Norton's approach as shown in Table 15.

	Activities	Description of Activities
i. Define the Measurement Architecture	**1. Select the appropriate organizational unit**	The architect or process facilitator – the person responsible for designing and developing the initial Balanced Scorecard - must identify the business unit for which a top-level balanced scorecard is appropriate.
	2. Identify SBU/Corporate linkages	Once the strategic business unit has been identified, the architect should learn about its relationships to other business units and to the divisional and corporate organisation.
ii. Build Consensus around Strategic Objectives	**3. Conduct first round of interviews**	Senior managers after receiving background information concerning the balanced scorecard and the organisation's vision, mission and strategy are interviewed by the architect and asked to identify the company's strategic objectives and possible performance measures for the scorecard.
	4. Synthesis session	Results from the first round of interviews are brought together and discussed by the architect and other members of the design team in a synthesis session, and a tentative list of objectives and measures for each one of the four perspectives of the balanced scorecard should be developed.
	5. Executive workshop: first round	The senior management group debates the proposed mission and strategy statements until they reach a consensus. The architect then asks the senior managers to answer the following question: "If I succeed with my vision and strategy, how will my performance differ for shareholders, for customers, for internal business processes, and for my ability to grow and improve?" By the end of the workshop, a preliminary version of the balanced scorecard will have been identified. That is, the executive team will have identified three or four strategic objectives for each perspective, a detailed descriptive statement for each objective, and a list of potential measures for each objective.
iii. Select and Design Measures	**6. Subgroup meetings**	The architect reviews and summarises the output from the first executive workshop and discusses the tentative balanced scorecard with four subgroups, each responsible for one perspective of the scorecard. The final output from the meetings with the subgroups should be, for each perspective: a list of objectives accompanied by a detailed description of each objective; a description of the performance measures for each objective; an illustration of how these measures are linked within the perspective and to measures or objectives in other perspectives.
	7. Executive workshop: second round	A larger workshop involving the senior managers, their direct subordinates, and a larger number of middle managers, debates the mission and strategy statements as well as the tentative scorecard. The participants comment on the proposed objectives and measures and start to develop an implementation plan. A brochure to communicate the scorecard intentions and contents is sketched out and stretch targets are formulated for each performance measure.
iv. Build the Implementation Plan	**8. Develop the implementation plan**	A new team formulates an implementation plan for the balanced scorecard. This plan covers issues dealing with the linkage of measures to databases and information systems, the communication of the scorecard throughout the organisation and the development of second-level metrics for decentralised units.
	9. Executive workshop: third round	The senior executive team meets for the third time to reach a final consensus on the vision, objectives, and measurements developed in the first two workshops, and to validate the stretch targets proposed by the implementation team for each measure on the scorecard.
	10. Finalise the implementation plan	The Balanced Scorecard must be integrated into the organisation's management system and periodically reviewed.

Table 15: Kaplan and Norton's approach

Mike Bourne was another scholar who wrote extensively about performance measurement systems and their introduction in organisations. Bourne et al. (2000) describe the process for developing performance measurement system as consisting of three main phases and these are:

1. The design of the performance measurement system, which consists as shown in Figure 20 of identifying the key objectives to be measured and designing the measures for these objectives. The objectives should be derived from the company's strategy and the measures should be designed with their impact on staff behaviour in mind as asserted by Neely et al. (1997), Neely et al. (2002b) and Bitton (1990) in Bourne et al. (2000).

2. The implementation of the performance measurement system is concerned with the system or procedures that are or should be developed to collect and analyse the data for the measures on regular basis. This process may involve collecting data manually, through surveys, or captured through the use of computer.

3. The use of the performance measures for two main purposes: (a) measuring whether the organisation is achieving its strategy; and (b) to challenge the strategic assumptions and test the validity of the strategy.

A key point to note here is that the described phases are not discrete or sequential, but instead there is overlap between them in particular between the implementation and use.

System design | **Implementation of measures** | **Use of measures to assess the implementation of strategy** | **Use of measures to challenge strategic assumptions**

Reflect

Measure

Review

Act

Initial collection
Collation
Sorting / analyse
Distribution

(1) Reviewing targets

Designing measures

Identifying key objectives

(2) Developing measures

(3) Reviewing measures

(4) Challenging strategy

Figure 20: Phases in developing a performance measurement system

Sources: Bourne et al. (2000) - Designing, Implementing, and Updating Performance Measurement systems

Neely et al. (2002b) also developed a process-based approach to performance measurement system design, which they incorporated in a workbook aimed for use by managers, consultants and academics. Figure 21 shows the twelve steps process as it appears in their book "Getting the measures of your business".
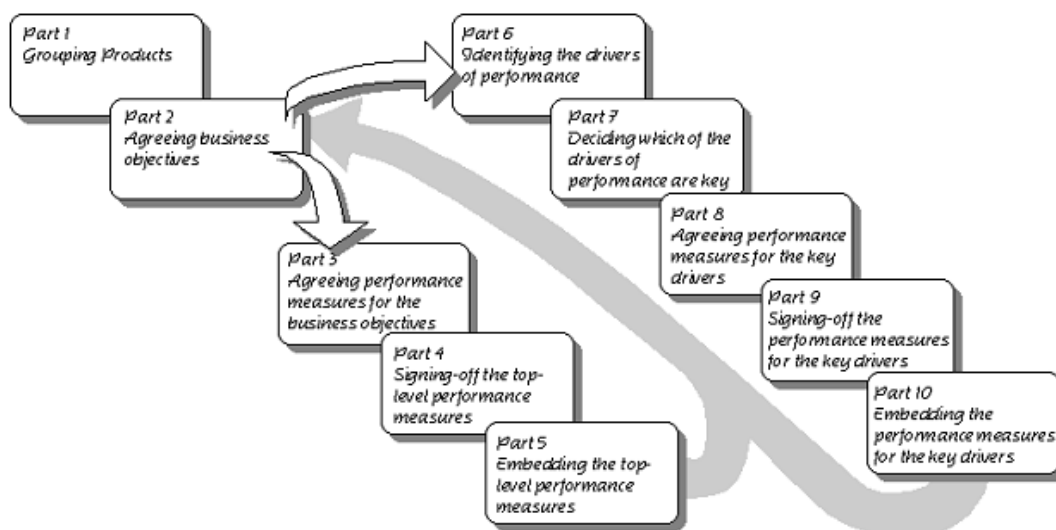
Figure 21: Two-levels process-based approach to introducing performance measurement systems in organisations

Source: Neely et al (2002) – Getting the measures of your business

The key advantage of this process is that it shows clearly the Macro and Micro level separation for developing performance measurement systems. Moreover, although the process is very prescriptive there is scope for flexibility in implementing the different steps e.g. use of strategy maps or product or stakeholders classification table, etc.

This approach is similar to Kaplan and Norton's approach in different aspects; for example, business objectives are defined by strategic business units or grouping products. Moreover, the process of defining performance measures and introducing them depends on gaining consensus from the top management and field areas champions team about the developed performance measures, targets and implementing the measures. Furthermore, the process of cascading the measures down is also common between the two approaches.

Wisniewski (1998) in his guide "The measures for success – Developing a Balanced Scorecard to measure performance" for the Accounts Commission for Scotland (1998) developed a management framework for designing and using performance measures. The framework shown in Figure 22 consists of 5 steps: (1) establish overall strategic goals; (2) identify the key success factors and enablers needed for each strategic goal identified in step 1 i.e. the "hows" of achieving each goal; (3) grouping the actions into

four perspectives (or more (Wisniewski, 2005a)) to assure balance; (4) develop performance measure(s) for each goal and key actions to assess the progress towards achieving them. In this stage, a check should be conducted firstly to avoid replicating the same measures as it might be existing in the organisation and secondly to assess the appropriateness of the measure. Wisnieswki like Neely et al. (2002a) and Bourne and Bourne (2000) provides a list of tests to be conducted on each measure as will be explained in the next section; (5) Monitoring and acting on the results of the measures.
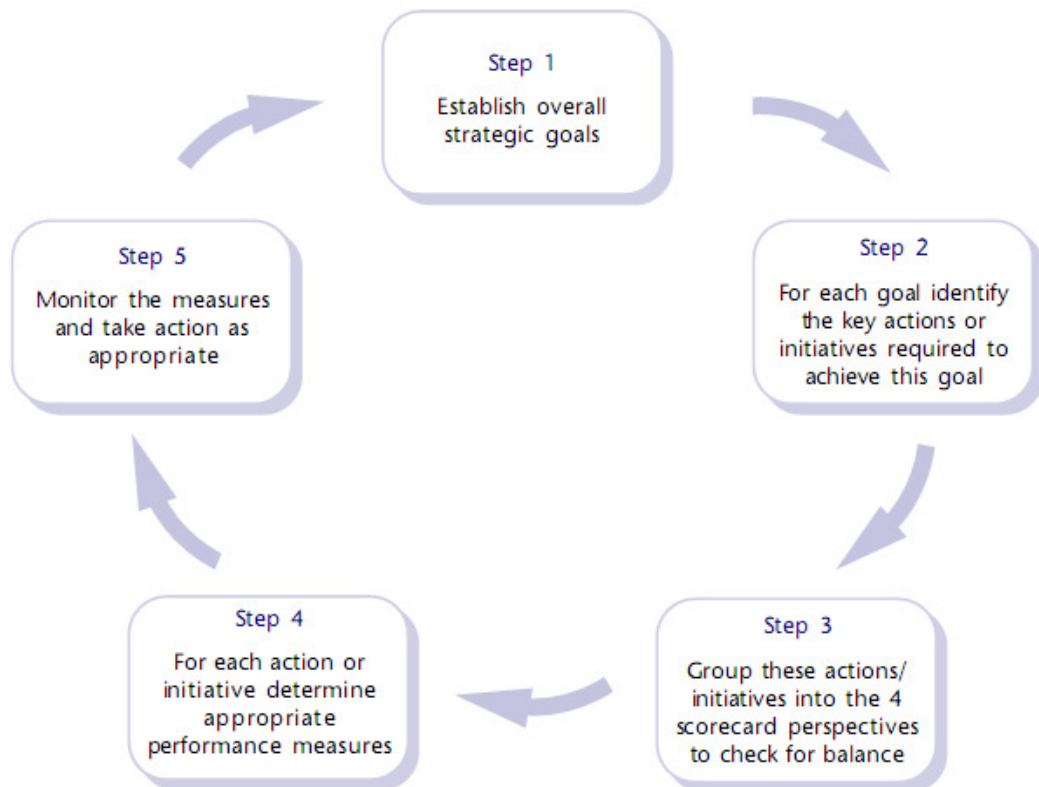
Figure 22: Producing a management system with the Balanced Scorecard

Source: Wisnwieski (1998) – The measures for success – Developing a Balanced Scorecard to measure performance

From all the different approaches mentioned above about developing performance measurement systems one can conclude that there is a lot of consensus, particularly:

1. Consensus about business objectives and means to achieve them should be clear and managers should agree about them regardless of how they have been identified.

2. Measures should be driven from these objectives and should pass a number of tests before being used.

3. Implementation plans should be put in place for using the measures and removing old redundant measures, developing means to collect performance data and analyse them, and report them for the use stage.

4. Consensus on using the measures to monitor progress in achieving the business objectives and reviewing them in the longer term.

From the different approaches described above and governed by the level of involvement of the researcher discussed in section 4.4.2, the following design process (section 5.3) was used to introduce and develop the BSC for the case school. The researcher educated the PM team about the implementation and use of the system and provided them with section 5.5 as a guide.

5.3. Design of performance measurement systems

Bourne (2004) states that performance measurement system design consists of (1) identifying key objectives, and (2) designing appropriate measures. In deciding what to measure two approaches are typically used: (a) The customer/stakeholder matrix, developed by Neely et al. (1996). The approach starts by identifying the business's customers and key stakeholders and their needs, which are then translated into the business objectives. (b) The "what / how" or "cause / effect" approach, and called also strategy mapping is a simple approach developed by Kaplan and Norton in early 1990's to assist in developing the balanced scorecards by creating a sequence of logic between the business objectives.

In developing a strategy map, the facilitator starts by asking the senior management "what" are the key strategic goals. Each goal is considered the "what" that we want to achieve, of which the facilitator then asks the question "how" could we achieve the goal. Once a level of answers "Key success factors" is reached for the first goal, the facilitator starts to deal with each answer as a new "what" question that needs answering about "how" we could achieve it. Answering all the questions for the "Key success factors" a second line of actions is developed, which Wisniewski (2005a) calls "enablers". Figure 23 demonstrates the process of strategy map development and

Figure 24 and Figure 25 shows the strategy maps for the Case School's three strategic goals.
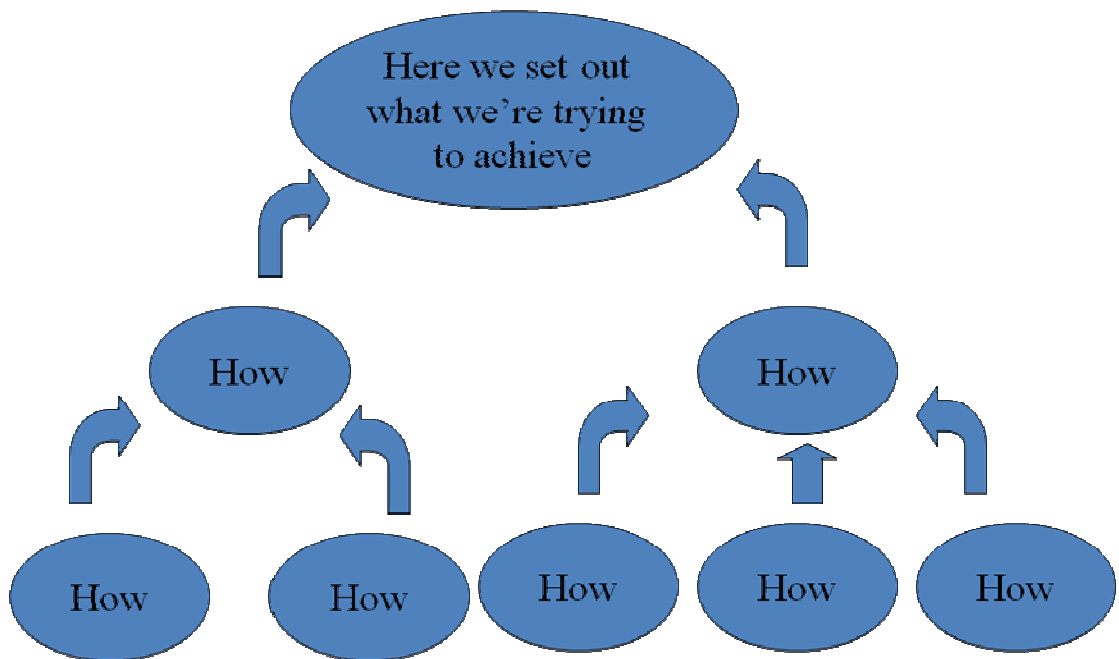
Figure 23: Strategy Maps

Source: Mik (2006) – The Balance Scorecard
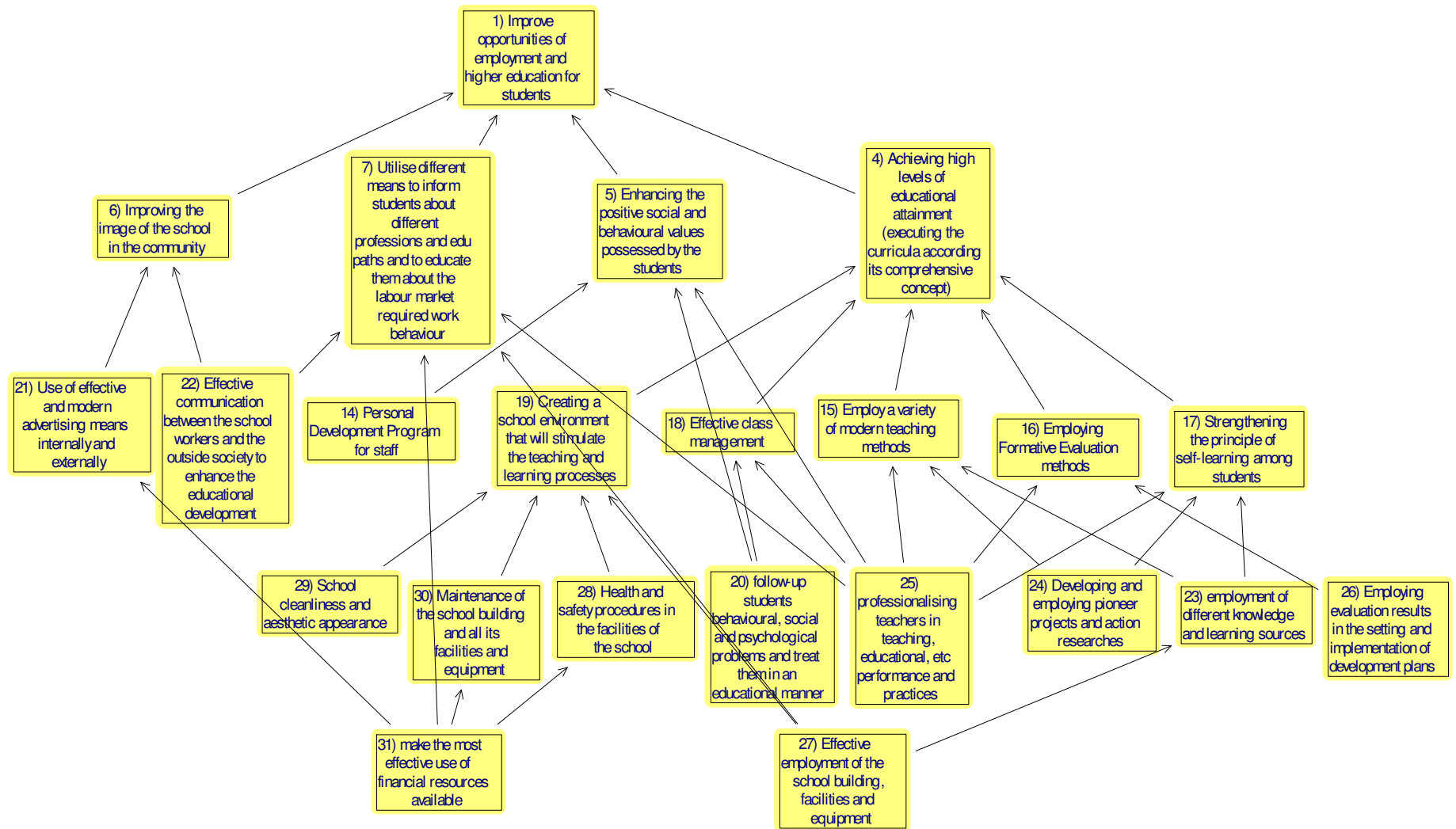
Figure 24: Map for Strategic Goal 1

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3) Enhanced work and social relationships between members of the educational establishment

2) Winning competitions, and earning appreciation certificates and medals in various fields

12) Applying healthy and clear system of incentives and motivation

14) Personal Development Program for staff

13) Organising social events, attracting and satisfying the majority of staff

11) Effective participation of scouts in community activities

10) Organise and participate in sport activities

9) Organise and participate in cultural, educational, art and technical activities

8) Participate in activities proposed by the Ministry of Education and other authorities

22) Effective communication between the school workers and the outside society to enhance the educational development

31) make the most effective use of financial resources available

27) Effective employment of the school building, facilities and equipment

Figure 25: Map for Strategic Goal 2 and 3

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5.3.1. Ensuring Balance of Measures

Bourne (2004) stated that all the balanced performance measurement systems emerged from the categorisation of performance measures in organisations. His argument stresses that the balance should stem from the strategic context "…Performance measurements need to be positioned in a strategic context, as they influence what people do. Measurement may be the "process of quantification", but its affect is to stimulate action, and as Mintzberg (1978) has pointed out, it is only through consistency of action that strategies are realised. Neely (2005; 1231). This is why many practitioners recommend using titles for measures suitable for the organisation developing a performance measurement system.

In this research, and once the strategy maps were developed, the next step taken was populating the four scorecards with the business objectives. The process, which is subjective and based on the management team consensus, revealed that there was a large number of objectives in the process scorecard. This imbalance necessitated reviewing the whole map and its constituent constructs again. The review process indicated that the process could be naturally clustered into processes related to students, and processes related to other stakeholders.

The next step taken was designing the measures. Guidelines were provided to the participants of the management workshop on how to design the performance measures of which the key question that was emphasized for developing the measures was:

"What behaviour will you get from using the measures?"

Moreover, two tools were given and these were:
1. The performance dictionary template shown in Table 16
2. Performance measures appropriateness test tool shown in Figure 26.

The participants group was then split into smaller groups to work on each perspective. The process took a long time and the team members had to meet for 10 working days in total till all the measures, templates, and tests were performed. The resultant was the measures shown in the five scorecards shown in Table 17 to Table 21.

Measure	The title of the measure. A good title is self-explanatory, avoids jargon and explains what the measure is and why it is important
Purpose	If a measure has no purpose then why introduce it?
Relates to	Identify the performance area (i.e. strategic goal, Key Success Factor, or Enabler) that the measure relates to.
Scorecard Perspective	Identify the perspective that the measure relate to.
Target	Target specify the levels of performance we need to achieve and the timescales within which we need to achieve them. Example targets: 1. x% improvement year on year. 2. y% reduction during the next 9 months.
Formula	How we measure something will effect the way people behave (what gets measured gets done!). An appropriately defined formula should drive people towards good business practice. Beware of any formula that might stimulate behaviour we do not want!
Frequency	The frequency with which performance should be recorded and reported is a function of the importance of the measure and the volume of data available.
Who measures?	Identify the person who is to collect and report the data
Source of data	Specify where to get the data from. If we want to see how performance changes over time, then we must get our data from the same source.
Who acts on the data?	Identify the person who is going to act on the data.
What do they do?	Define the general management process to be followed in the case of acceptable or unacceptable performance.
Notes and comments	Any specific features, issues, problems, to do with the measure.
Date/issue number	

Table 16: Measure Dictionary Template

Source: Neely (2002) – Performance Prism

1. The Truth Test – Are we really measuring what we set out to measure?
2. The Focus Test - Are we only measuring what we set out to measure?
3. The Relevancy Test – Is it the right measure of the performance factor we want to track?
4. The consistency Test – Will the data always be collected in the same way whoever measure it?
5. The Access Test – Is it easy to locate and capture the data needed to make the measurement?
6. The Clarity Test – Is any ambiguity possible in interpreting the results?
7. The So-What Test – Can and will the reported data be acted upon?
8. The Timeliness Test – Can the data be accessed rapidly and frequently enough for action?
9. The Cost Test – Is the measure worth the cost of measurement?
10. The Gaming Test – Is the measure likely to encourage undesirable or inappropriate behaviours?

Figure 26: Appropriateness Tests

Source: Neely 2002 – Performance Prism

Key Deliverables

Association number with Map	Performance Area	Measure	Who measures	Frequency
1	Improve opportunities of employment and higher education for students	Formula 1(for employment): (Number of students in employment in related areas to their school study / total number of graduates) * 100 Formula 2 (for higher education): (Number of students in further and higher education with an average over 2 / total numb	Vocational guidance office	Yearly
2	Winning competitions, and earning appreciation certificates and medals in various fields	Number of areas and number of leagues and competitions won within each area (Number of advanced grades achieved in competitions in each area / total number of participation) * 100	Follow-up and documentation committee	Yearly
3	Enhanced work and social relationships between members of the educational establishment	(Number of staff satisfied with social and work relationships / total number of staff) * 100 Number of transfers from the school Number of transfers to the school	The school management	Every semester
4	Achieving high levels of educational attainment (executing the curricula according its comprehensive concept)	((Student average at the end of current semester – student average at the end of last semester) / student average at the end of last semester) * 100	Registrar	Every semester
5	Enhancing the positive social and behavioural values possessed by the students	(Number of students satisfied with their teachers encouragement / total number of students) * 100 (Number of teachers satisfied with the students behaviours and attitude / total number of teachers) * 100	PM team	Quarterly (twice a semester)
6	Improving the image of the school in the community	Image survey	Public relations committee and open day committee	Yearly
12	Applying healthy and clear system of incentives and motivation	(Number of staff satisfied with the distribution of incentives / total number of staff) * 100	PM team	Yearly

Table 17: Key Deliverables

Learning and Improvement				
Association number with Map	**Performance Area**	**Measure**	**Who measures**	**Frequency**
22	Effective communication between the school workers and the outside society to enhance the educational development	Staff, stakeholders (parents, other schools, etc) satisfied / total number	PM team	Every semester
10	Organise and participate in sport activities	(Number of sport activities / total number of activities) * 100 (Number of students involved in sport activities / total number of sport activities) * 100 (Number of teachers involved in sport activities / total number of sport activities) * 100	Sports Committee	Every semester
14	Personal development program	((Evaluation mark after training - evaluation mark before training) / evaluation mark before training) * 100	Immediate super-ordinate to the employee in the work area that the employee was trained in	Before and after training
24	Developing and employing pioneer projects and action researches	(Number of pioneered projects achieving xx% in evaluation/total number of projects) * 100	Planning committee	Yearly
25	Professionalising teachers in teaching, educational, etc performance and practices	Difference in % between performance level after training and before training	Immediate super-ordinate to the employee in the work area that the employee was trained in	Before and after training
26	Employing evaluation results in the setting and implementation of development plans	(Number of plans based on analysis of evaluation results / total number of plans) * 100	Head of sections	Every semester
29	School cleanliness and aesthetic appearance	Formula 1: (Number of dirty classrooms and premises / total number of classrooms and premises) * 100 Formula 2: (Number of aids relevant to the values the school intends to spread / total number of aids) * 100 Formula 3: Number of aesthetics additions	Formula 1: Teachers Formula 2 and 3: The Technical Committee	Every semester

Table 18: Learning and Improvement

Processes Related to Other Stakeholders

Association number with Map	Performance Area	Measure	Who measures	Frequency
8	Participate in activities proposed by the Ministry of Education and other authorities	(Number of activities the school participated in / Total number of activities the school was invited to by the MoE) * 100 (Number of activities the school participated in / Total number of activities the school was invited to by the other authorities) * 100	Follow-up and documentation committee	Yearly
9	Organise and participate in cultural, educational, art and technical activities	(Number of cultural, educational, art, and technical activities / total number of activities) * 100 (Number of students involved in cultural, educational, art, and technical / total number of students) * 100 (Number of teachers involved in cultural, educational, art, and technical / total number teachers) * 100	Follow-up and documentation committee	Every semester
13	Organising social events, attracting and satisfying the majority of staff	(Number of staff participating in each activity / total number staff participating) * 100 (Number of staff satisfied with the activities / total number of staff) * 100	The public relations committee	Every semester
20	Follow-up to students behavioural, social and psychological problems and treat them in an educational manner	(Number of staff satisfied / total number of staff) *100	PM team	Every semester
21	Use of effective and modern advertising means internally and externally	Number of request for information per advertisement method	Public relations committee and learning resource centre	Every semester

Table 19: Processes Related to Other Stakeholders

Processes Related to Students

Association number with Map	Performance Area	Measure	Who measures	Frequency
7	Utilise different means to inform students about the different professions and education paths and to educate them about the labour market required behaviours	(Number of use of each method / total number of uses) * 100 (Number of students satisfied with each method / total number of students) * 100	PM team	Quarterly (twice a semester)
11	Effective participation of scouts in community activities	(Number of activities the scouts get involved in the community / total number of activities) * 100, (Number of students involved in scouts activities/total number of students) * 100	The scouts committee	Every semester
15	Employ a variety of modern teaching methods	(Number of students satisfied with the teaching methods / total number of students) * 100	PM team	Quarterly (twice a semester)
16	Employing Formative Evaluation methods	(Number of students satisfied/total number of students) * 100	PM team	Quarterly (twice a semester)
17	Strengthening the principle of self-learning among students	(Number of students satisfied with the level and type of home-work / total number of students) * 100	PM team	Quarterly (twice a semester)
18	Effective class management	(Number of students satisfied with activities, relationships, participation, dialogues / total number of students) * 100	PM Team	Quarterly (twice a semester)

Table 20: Processes Related to Students

Resources

Association number with Map	Performance Area	Measure	Who measures	Frequency
19	Creating a school environment that will stimulate the teaching and learning processes	(Number of student satisfied with the school environment / total number of students) * 100 (Number of staff satisfied with the school environment / total number of students) * 100	PM team	Quarterly (twice a semester)
23	Employment of different knowledge and learning sources by the school faculties and the teaching staff in the teaching and learning processes	(Number of uses per source "measured in periods" / total number of periods of subject or course) * 100	Learning resource centre	Every semester
27	Effective employment of the school building, facilities and equipment	(Time premises, facilities used / (total time of occupied and unoccupied premises and facilities) * 100	Registrar, and learning resource centre	Every semester
28	Health and safety procedures in the facilities of the school	Continuous and regular inspection	Health and safety committee	Every semester
30	Maintenance of the school building and all its facilities and equipment	(Total number of premises and facilities not suitable for use / total number of premises and facilities in the school) * 100	Head of Sections and Administrative Supervisory	Every semester
31	Make the most effective use of financial resources available	(balance / budget allocated) * 100	The financial supervisor	Yearly

Table 21: Resources

5.4. Implementing the Performance Measurement System

Once the measures were developed the team started developing the means for collecting data. Secondary data were one source and questionnaires were developed for students, teachers, and parents (appendices 14 and 15) as the other source. The researcher played the role of an external advisor to revise the questionnaires.

Measures were then grouped based on functional responsibilities in the school. This grouping was then used in a workshop to introduce the performance measurement system to the staff and highlighting their responsibilities. The workshop conducted was one means to communicate the system and its measures to the staff. It also served other purposes: setting the performance targets, confirming understanding of the measures, confirming the data sources, and agreeing responsibilities. The performance measures team also provided one-to-one meetings with staff unfamiliar with the system to answer their questions and concerns. These meetings were a very effective means to increase the buy-in of the staff and raise observations. For example, a number of staff indicated some data that was collected in the school was similar to the data for the newly designed measures. The sources of these data were unified as suggested by Neely et al. (2002a).

5.5. The use of the measures

Literature talking about using performance measurement systems is minimal, therefore the researcher developed this guide as a standalone guide, which was provided to the Performance Measurement Team for using the performance measurement system developed in the school.

It is based on a structure focusing on six main areas: data, analysis, reports, interpretations, future actions, and follow-up as shown in the Figure 27.
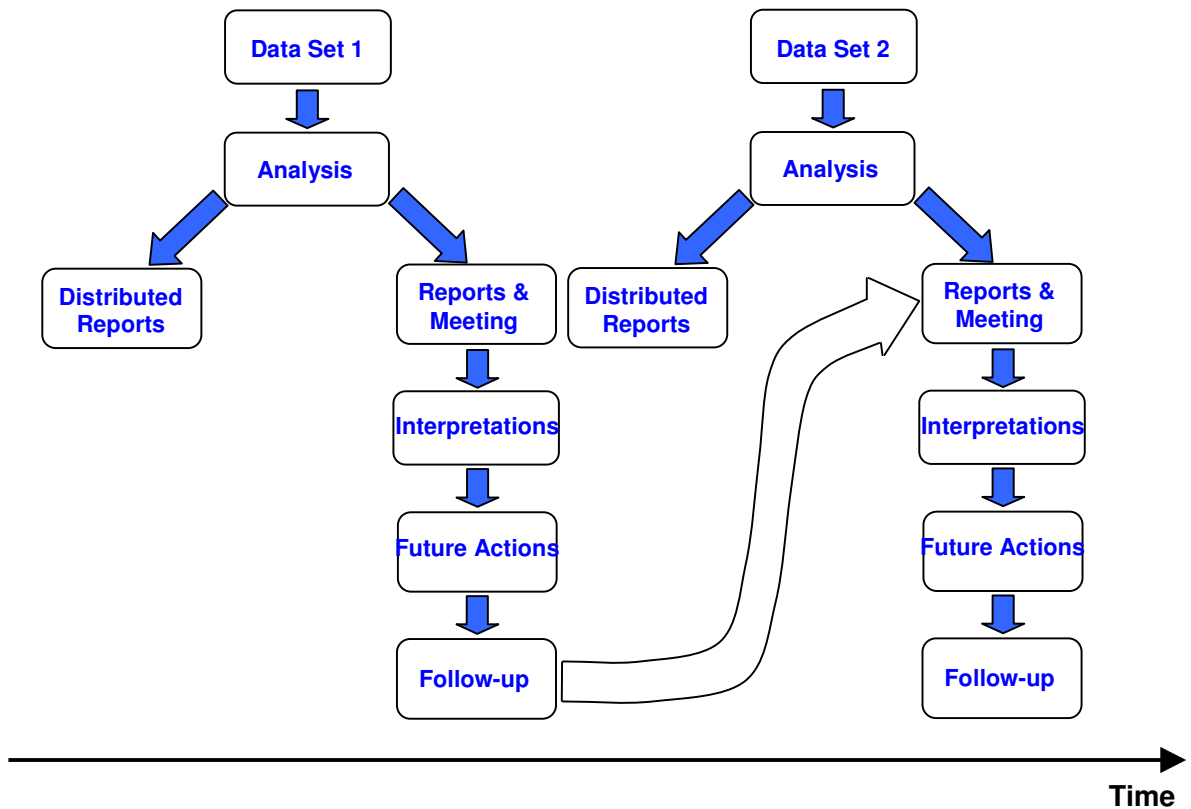
Figure 27: Use framework

1. Data

According to Olve et al. (1999), Neely et al. (2002a) "Garbage in, garbage out"; therefore, ensuring the data are valid and reliable is a key for the success for the stages that follow. Neely (2002; 67) proposes a validity (also reliability the researcher claim) check for the following four types of possible data abuses:

1. Dubious Data: data that are not reported in the required way as the people are new to the data or not used to it.
2. Inconsistent data that is collected or collated differently from previous times. Comparing inconsistent data can lead to misleading results or anomalies.
3. Sloppy data that is being collected in a sloppy fashion as apposed to malevolent data.
4. Malevolent data that is being deliberately modified, manipulated or 'gamed'. Malevolent data raises very important questions regarding the culture and

behaviour of the data manipulators and the reasons behind this gaming. A revision to the measures in place might be needed as the measures might be the main cause for the gaming.

The above abuses could be identified by auditing. And, in resolving the first three data abuses, education and follow-up could assist. However, for the fourth abuse performance measures revision would be essential.

2. Analysis

The analysis according to Bourne and Bourne (2000) and Neely et al. (2002a) is mainly concerned with three types of analysis:

1. Indicating trends

   Lead measures (depending on how well the organisation structured its measurement system) could inform the organisation about trends. They act as early indicators for the chronically consequent lag measures. Simply, what the data analyst should do is (1) analyse all measures to see how each individual measure is doing; (2) Identify the lead measures and analyse them to predict the future results (lag measures). To identify the lead measures for a specific lag measure the data analyst should look at the strategy map and identify the key success factors or enablers that fall immediately below the strategic goal or key success factor consecutively for the relevant lag measure in question. Note, this proposition is valid theoretically and only if the map was constructed properly.

2. Correlating results

   Correlate results of measures to draw conclusions and determine actions. In other words and simply, try to find what effect on what, so you can monitor it and then take the necessary actions when needed.

3. Year on year comparison

   If you are consistent and persistent in measuring, build a bank of data and use it to make a year on year comparison. The benefit of this is to have a

more informed judgement about the causes of change as many dips in performance could be attributed to external factors to the organisation. The time of year for example in Islamic countries and the use of the Islamic calendar could have an impact on the performance of the organisation as many holidays in the host country depend on this.

3. Reporting

Reporting is the next stage to be performed once that data is analysed. Reports are very important as they represent a medium for sending meanings. Therefore, they need to be carefully crafted and thoroughly critiqued to investigate their suitability for their audiences. Two types of reports whose existence the researcher infers from the literature:

1. Meeting reports

   These reports are produced specifically for the purpose of management meetings and serve them in three ways: (1) indicating status of performance in comparison to target; (2) opening the discussion in which lessons from good practices are learnt and reasons for poor performances are underlined, and consequently (3) assist in proposing informed future plans for actions.

2. Distributed reports

   These reports are produced for the wider audience. They are intended to be informative, indicating current performance status, shifting focus from the well performing areas to areas needing attention, encouraging a sense of responsibility and belongingness, and consequently motivating employees for a better performance.

There are some common guidelines for producing both types of reports as well as more specific to each. The researcher starts here by presenting the common ones :

- Credibility and integrity of information are vital to ensure people will take the results seriously and act on them.

- Need to ensure graphs and figures are not out of date.
- Ensure graphs and figures are not hiding bad news because they could lead to distrust in the measures.
- People need clarity and need to know what the priorities are. One way of demonstrating the priorities is by using colour codes (e.g. traffic lights), arrow systems, similes, or any other that could be indicative of the direction of performance and where focus should lie. Moreover, people need consistency therefore it is advisable to use just one approach for presentation to avoid causing confusion.
- If the organisation is not sure which approach to use in presenting the report it should produce a pilot report and use the feedback from it to improve the presentation and readability of the final report, .
- Communicate how measures in different parts of the business link together to deliver the anticipated strategic goals. One way of achieving this is by presenting the strategic map and link measures to the strategic goals, key success factors, or enablers in the map by, for example, using numbers.

Guidelines for meeting reports and the people involved in meetings

1. Report

- Reports should be formatted based on the preference of the senior managers in the organisation
- Use pictures/visualisations to help the review process e.g. Ford QOS or Xerox
- Use an overhead projector to get the attention of all people involved

2. People

- Involve the people concerned with the measures and knowledge as opposed to the chain of command only.
- Based on the specification of owners to measures (or one person to few measures) that was conducted in the implementation phase, the owner of

each measure (or group of measures) should be responsible for presenting it to the group.

- Ensure having a coordinator (or a facilitator) whose role also involves keeping the necessary records and taking the minutes of the meeting.

Guidelines for distributed reports

- The approach you take about how to present the reports (charts, figures, tables, etc), how to distribute the reports (newsletter, poster, etc), what to include in the reports, and where you distribute or advertise the reports has a major impact on the perception of the importance of the measures (i.e. how important the measures are) and how seriously individuals regard subsequent actions to be. For example, display the reports professionally in a public place where everyone can see the reports without going out of their way. In the school, the notice board, signing-in office, administrative supervisory, canteen notice board and staff rooms are good places to present the reports as firstly they would be available for everyone to see them without going out of their way, and secondly staff normally meet coincidentally and hence it is a good chance for them to talk about how the school is doing.

- Measures specific to a particular area need to be displayed as close as possible to this area so the people responsible can have a direct impact on its performance.

- Pay considerable attention to issues of confidentiality in particular if you do not want your visitors to know how you are doing

- Ensure the presentation of reports indicate that they are up-to-date e.g. use different colours.

- Include in your reports a note specifying the areas concerned with particular measure or groups of measure.

4. Interpretations

Decisions of the organisation should be based on the Interpretations of performance measures reports (meeting reports). The process of managing through measures is primarily based on how the management team discusses, interprets the report and then takes the necessary actions. Without this process, decisions could be arbitrary, individualistic or biased. The process of interpretation is a group exercise where the whole management team should take part. The collective thinking about the analysis in the reports should shed light on the problem(s) from different perspectives and thus producing a cohesive solution suitable for all individuals involved. For this process to happen a great deal of effort is required from both the chair and the facilitator to first initiate and then guide the discussion. Scholars like proposed questions to guide the interpretation process, which the researcher has combined and listed in a sequential order below:

- What is the current performance?
- How does the actual performance compare with the target set? Are we on course to achieve the target?
- What is going well?
    o How to maintain success
    o What can be learnt from those measures at which we excelled?
    o Are there resources or initiatives that could be applied with equal effectiveness to other measures?
- What is not going well?
- What are the main reasons why the target is not being met?
    o Perhaps the target does not represent a meaningful challenge (Is the target appropriate?)
    o What supporting initiatives are devoted to this measure?
    o If there are supporting initiatives, how are we progressing on these initiatives? (i.e. the progress of these initiatives act as a lead indicator)
    o Do these results imply a flaw in our strategy?

- o How have other measures in the chain of cause and effect reacted to this performance?
- What is the plan for corrective action? What has to be changed and how can it be changed? What do you (the owner of a measure) propose to do?
- Will the proposed action have the desired impact on the results of the measures? Why do you think so?

5. Future Action

These are the actions which stemmed from discussing and interpreting the reports. Normally a list of assigned jobs/tasks and targets is also expected to be produced at the end of the management meeting. Moreover, a date has to be set for the next management meeting.

6. Follow-up

The follow-up is mainly about ensuring that the agreed actions are being executed. For example, a follow-up mechanism is normally established, such as intermediate checks or audits to ensure that the commitment made to the actions decided are being kept. Moreover, in the management meeting the management could be asked to follow up by asking the following questions:

- Has the action been taken?
- Did the action have the desired impact on the results of the measures? If not, why do you think it did not?

5.6. Conclusion

In this chapter the strategy maps and the Balanced Scorecards the schools used were presented. Moreover, the implementation and use approaches were articulated. This chapter did not aim to show a break through, but instead to provide the reader with a sense of how the school interacted with the researcher and the Balanced Scorecard. Moreover, it aims to provide guidelines for future researchers who intend to replicate this study on other organisations or using different framework.

The next two chapters present the qualitative and quantitative findings respectively. The last chapter of this research brings the key messages from the findings chapters for triangulation purposes. It will link the triangulated findings with the performance measures listed in the Balanced Scorecards presented in this chapter. Moreover, it will reflect on the process of introducing the Balanced Scorecard in the school.

6. Findings Chapter – Qualitative Data Findings

"Words are fatter than numbers and usually have multiple meanings. This makes them harder to move around and work with", Miles and Huberman (1994; 56)

"A subject is a good one if it supplies a demand or a deficiency that other minds have already revealed.", Watson (1987; 24).

6.1. Introduction

This chapter presents the findings of the semi-structured interviews and the diary. As explained in the methodology chapter, ten interviews were conducted in each school at each stage – prior and post introducing the performance measurement system. The list of interviewees is provided in appendix 1. Each interview consisted of four participants, except the Headmaster and the Deputy Headmaster interviews. The interviews aimed at:

1. Identifying what cultural basic assumptions emerged or changed and to what extent.
2. Identifying to what extent these basic assumptions are shared (opposed or fragmented) among the different occupational groups.
3. Identifying what caused the emergence/changes of the basic assumptions.

Based on the aims of conducting the interviews, this chapter presents the findings in three sections. Each section will start with presenting the findings from the Case School followed by presenting the findings from the Control School.

6.2. What Cultural Basic Assumptions Emerged/Changed and to What Extent

In identifying the basic assumptions that emerged or changed and their degree of change, the number of manifestations (forms and practices) for a specific theme from all the interviews was totalled and divided by the total number of manifestations to identify the salience of that particular theme (see section 4.8.1.4 for more details).

6.2.1. The Case School

Figure 28 below shows the principal themes (for the definition of the themes see appendix 7) that emerged/changed in the Case School pre and post and their salience as a percentage.

It is clearly evident that Concern for Students (main purpose of the school) has become the prime, basic assumption. Fairness, Accountability, Autonomy, Transparency, Concern for Staff, Partnership, Consistency, Support and Cooperation all strengthened, and eagerness for Development and Improvement emerged as the prime guiding assumptions for the Case School.

The figure below also shows how opposing negative beliefs such as Lack of Concern for Students, Unfairness, Secrecy, Centrality, Lack of Responsibility and Initiative, Lack of Cooperation, Lack of Trust and Lack of Support were suppressed as well as fragmented beliefs like Ambiguity, and Confusion about Fairness.

6.2.2. The Control School

In the Control School, the themes Concern for Students and Fairness have strengthened. However, there is a belief that there is Lack of Concern for Students as the school mainly focuses on "Show". Moreover, there is also some improvement in the Concern for Staff, Transparency, Partnership, and Autonomy beliefs from the pre analysis (see Figure 29). However, these improvements as percentage improvements are less than in the Case School!

Pre
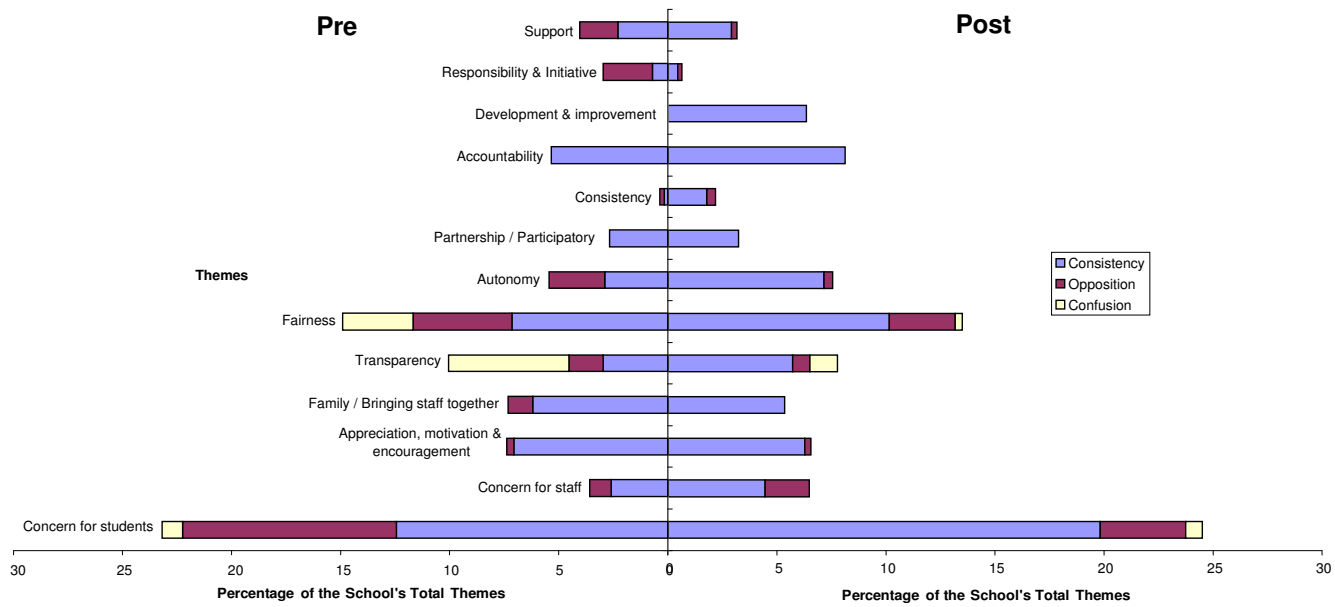
Post

Figure 28: Comparing the Salience of the Case School Themes Pre and Post

Pre
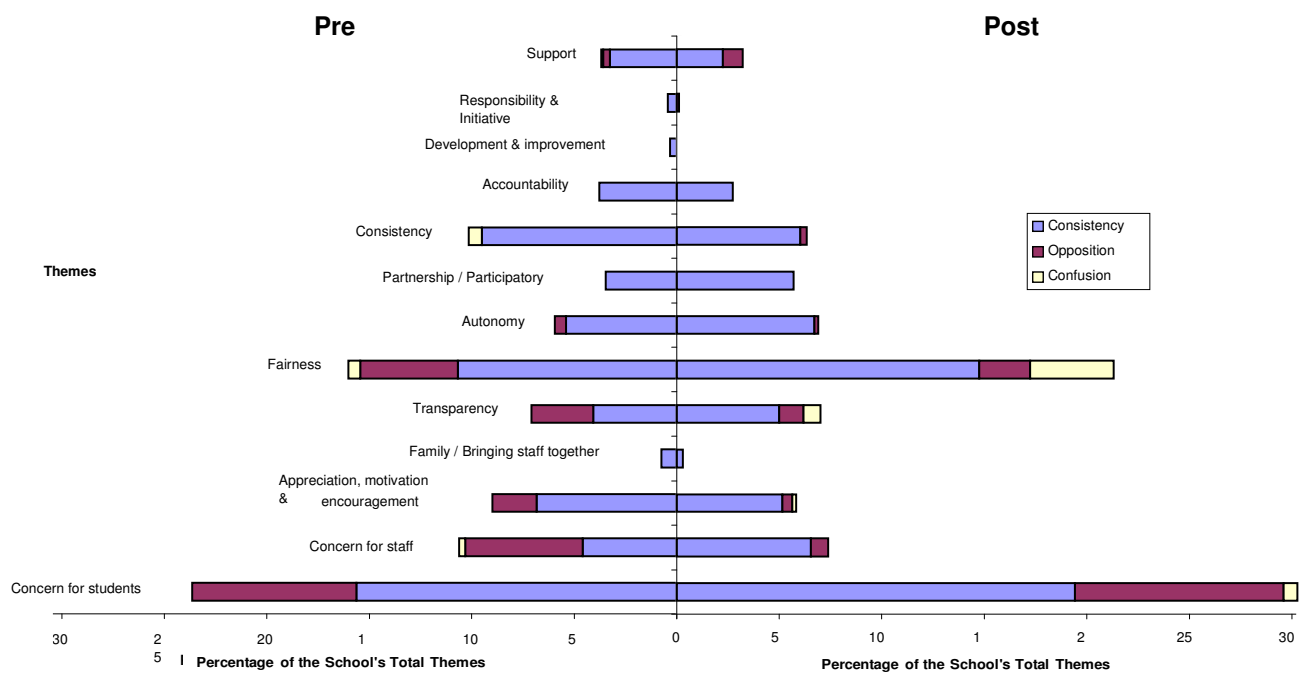
Post

Figure 29: Comparing the Salience of the Control School Themes Pre and Post

6.3. To What Extent these Basic Assumptions are shared among the different occupational groups

In identifying the shared-ness of the themes across the different functional groupings, first the salience of a particular theme for a group was identified separately by calculating the number of manifestations for the theme over the total number of manifestations mentioned for the same group (as explained in section 4.8.1.4). For example, the Headmaster stated 100 practices and forms. Out of these 100 he focused on 11 of them, on how the school is concerned about its students. Therefore, the concern for student theme, for the Headmaster, represents 11% of his total themes. Secondly, the shares/percentages of all the themes for each particular group is calculated and presented in stacked bars to allow comparison with the other groups in the school as shown in Figure 30 to Figure 31.

6.3.1. The Case School

When investigating the guiding assumptions for the different groups post introducing the PMS it was found that Concern for Students, Transparency, and Fairness have strengthened for most of the occupational groups as well as being shared among them all. The newly emerged theme (Development and Improvement), Accountability and Autonomy became shared as well as salient themes across almost all the different occupational groups (see Figure 30 and Figure 31 below).
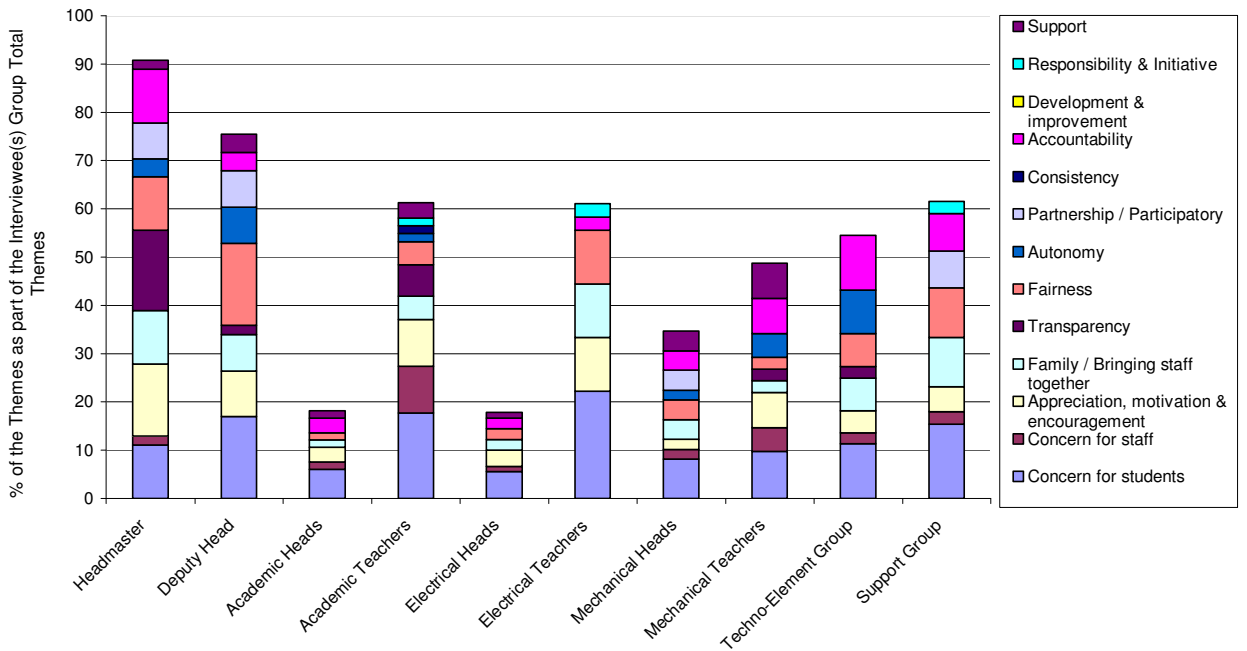
Figure 30: Shared-ness of the Themes across the Different Occupational Groups of the Case School Pre
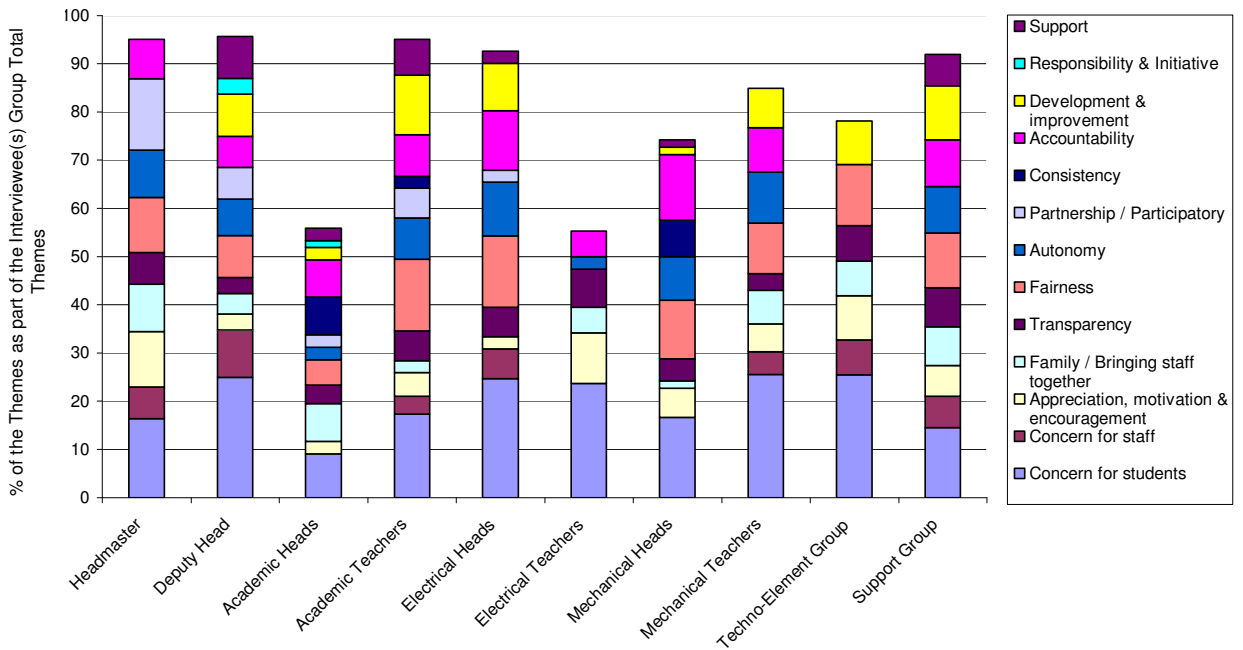
Figure 31: Shared-ness of the Themes across the Different Occupational Groups of the Case School Post

6.3.2. The Control School

Figure 32 and Figure 33 show the themes for the different occupational groups. Concern for Students and Fairness are the prime guiding themes in the school in the pre and the post study. In fact, Fairness seemed to be a more prominent theme for some occupational groups than Concern for Students. Autonomy and Partnership are other shared beliefs across most occupational groupings. On the other hand lack of concern for students seems to be also prominent in most of the occupational groups' value systems in particular the Electrical Teachers' group.
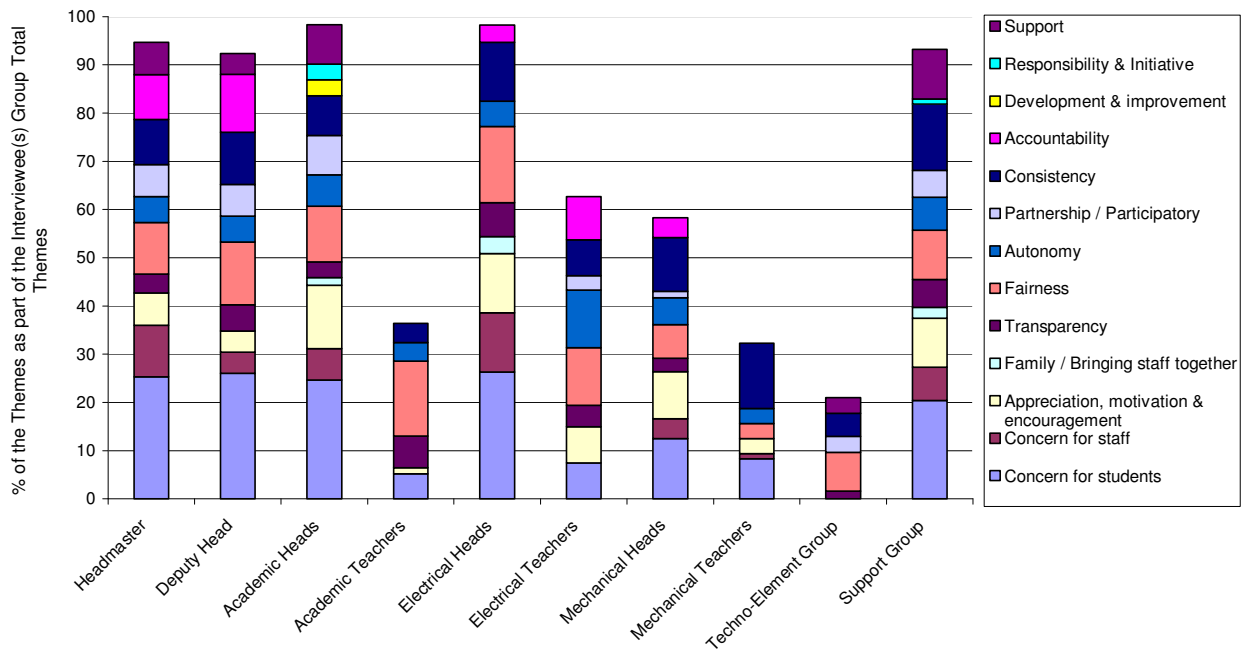
Figure 32: Shared-ness of the Themes across the Different Occupational Groups of the Control School Pre
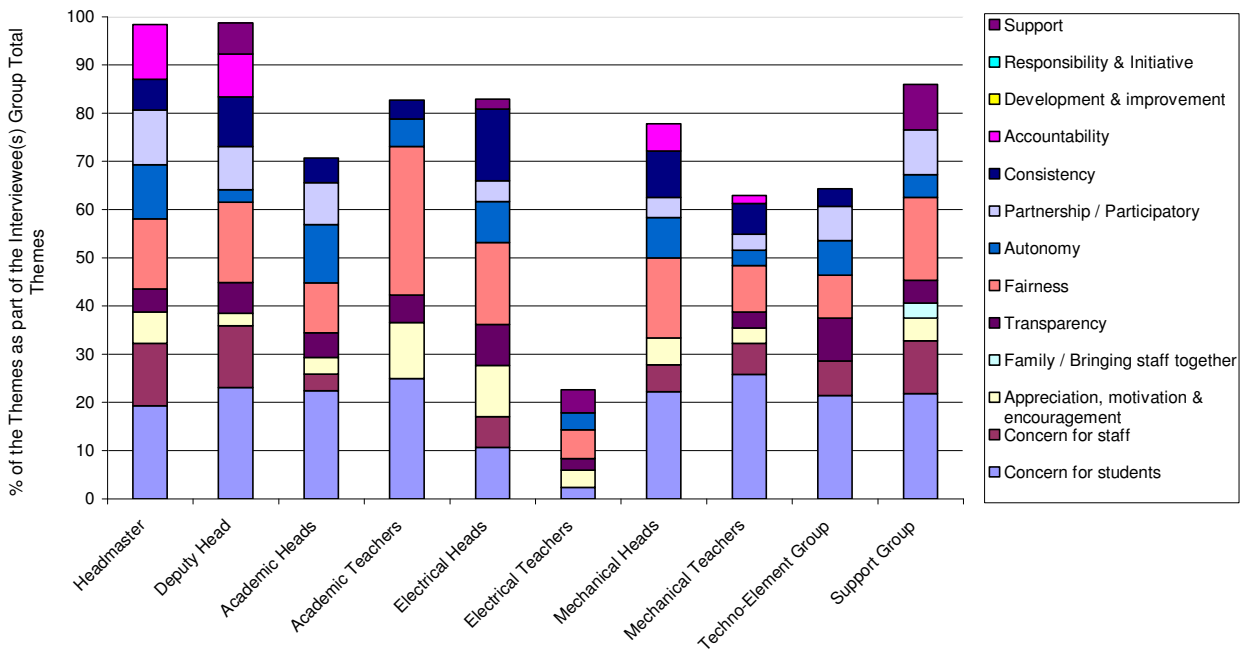
Figure 33: Shared-ness of the Themes across the Different Occupational Groups of the Control School Post

6.4. Why the Themes Changed or Emerged

6.4.1. The Case School

Based on a descending order of importance the themes are discussed here. Where similarities of description of a manifestation by different occupational groups exist the best articulated description is quoted.

In investigating each theme the researcher synthesised all manifestations from the interviews for each phase on a map. He then compiled both maps on a single map for the purpose of identifying the new and old (mentioned in the pre) manifestations that predicate the particular theme. Figure 34 contains the key for the map. Colour codes were used to distinguish the different practices (formal and informal), forms (stories, rituals, jargon, and physical arrangements), and espoused values and beliefs. Shades were used to show the manifestations in the pre and post. The red shade represents the pre-stage manifestations and the blue shade represents the post-stage manifestations whereas the overlap indicates the common manifestations between pre and post stages. Letters in brackets at the end of each concept relate to the occupational groups. Table 22 provides for the full list of abbreviations.
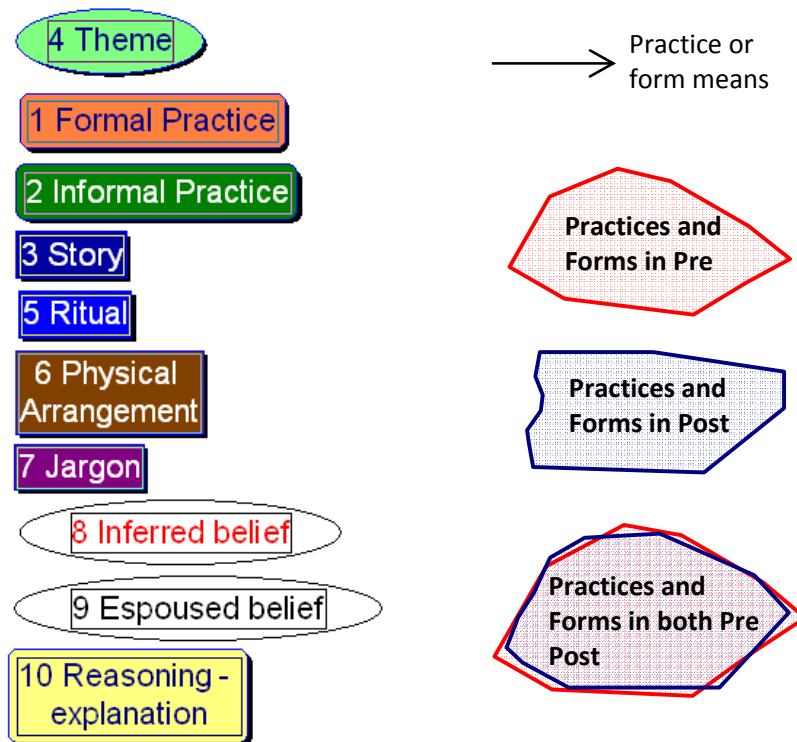
Figure 34: Key for the Themes Maps

Abbreviation	Occupational Group
HM	Headmaster
DH	Deputy Headmaster
AH	Academic Sections Heads
EH	Electrical Sections Heads
MH	Mechanical Sections Heads
AT	Academic Sections Teachers
ET	Electrical Sections Teachers
MT	Mechanical Sections Teachers
TG	Techno-Element Group
SG	Support Group

Table 22: Occupational Groups Abbreviation

Concern for Students

Figure 35 below shows the Concern for Students theme. Post implementing the PMS a few structural changes occurred which staff saw as evidence of increased concern for students. First of all was the creation of the Performance Measurement and Management

committee. The committee was created when developing the PMS. This is what the Learning Resource Centre Specialist had to say about it.

> The performance measurement and management committee evaluates the school. Last year they (members of committee) prepared a workshop. During last year they evaluated the satisfaction of students with the school from different perspectives e.g. facilities, teaching, etc. At the end of last year and at the beginning of this year, too, the committee members presented to us the school's performance and the Headmaster discussed the results with us and encouraged us to perform better. (The Learning Resource Centre Specialist)

Secondly, the Technical Committee which is one of the principal committees in the school and deals primarily with teaching and learning was split into three committees: 'Teachers' Performance Improvement Follow-up and the Classroom Environment', 'Students' Attainment', and 'Audit of Students' Results'.

> These committees (new committees split from Technical Committee) are related directly or indirectly to the students. We found there was a lot of work involved when they were under one committee which impaired the follow-up process and dispersed focus, so we decided the job could be done better with three committees instead. (The Deputy Headmaster)

> The teachers' performance improvement and classroom environment committee's first purpose is to develop teachers through training which in turn benefits the students. The second purpose is improving the learning environment like the classrooms and academic buildings with posters, etc. (Arabic Section Teacher)

Thirdly, a committee was created to cater for talented students. Fourthly, the Industrial Training Follow-up committee was created to follow third year students who go for industrial training as part of their course. The committee deals with problems arising every semester such as students not allocated to industries, issues with the training companies, etc. This is what the Deputy Headmaster had to say:

> The vocational guidance used to provide some information to our students before going for their industrial training. However, not all our students are allocated to industries. Therefore we are instructed by the Technical Directorate to organise internal training i.e. in the students' sections in the school. A student's behaviour could be one of the reasons the Directorate can't allocate him in a company. For those students who are being trained in the school there is a lack of follow-up and we don't know if they are gaining the skills and attitudes of the workplace. Therefore this committee helps in doing this and also prepares the students who were allocated to companies for their training. (The Deputy Headmaster)

The fifth structural change is a change in functionality. The Technical Education students in Bahrain are considered maverick and do not want to study. The belief about most of them in all the Technical Schools is that the students go to schools to fill their time instead

of spending it outside in the streets i.e. the students see the schools as a place to socialise. A lot of problems arise daily due to ill manners or misbehaviour in the classroom. Teachers used to send the students immediately to the Administrative Guide who in most cases merely shouts at the student and sends him back with a permission-to-let-in note. This process did not solve the problem and did not change the students' attitudes.

In dealing with this issue, the school management instructed Heads of Sections and teachers that all students' problems should go first to the Head of Section to be dealt with. However, if there are more difficult and persistent cases the misbehaving student should be sent either to the Social Guide or Administrative Guide.

> Students' discipline in sections improves the discipline in all the school. Teachers return to their Head of Sections for all issues concerning students improved the students' discipline. Moreover, it reduced the load on the Administrative Guide. The practical section teacher and Heads of Sections are the closest people to their students, which in itself encouraged us to choose the Academic Guides from the practical (engineering) sections. (Electrical Section Head and Deputy Headmaster)

A Mechanical Section Head adds:

> With teenage students, there is a positive relationship between the number of students and the number of problems i.e. if their number increases their problems increase. We have to deal with their issues and we shouldn't send them to the Administrative Guide directly. Students study in our section and we know them best. We call the father/guardian of a student if his problem persists in the workshop. (Mechanical Section Head)

The problem of misbehaving was the most quoted problem in the workshop facilitated by the performance measurement team when introducing the PMS in the school. This problem again and again was reported with measures. The discussion led to recognising a few of its causes. One of them was the high number of students going to a section that was not theirs and talking to other students or distracting them while in the workshop. The school, as one remedy introduced a new practice to tackle it which represents the sixth change. Every section was instructed to assign different teachers to gate-watch at different times. Although, to the researcher this is a short term remedy and has already received criticism and antagonism from some of the school's staff. However, the take away from it is that the school thought about the problem and possible remedies.

> Many students from different sections used to come to our section, but after the school introduced the gate-watcher teachers now can teach their lessons. However, some arguments sometimes arise between the teacher acting as gate-watcher and the intruding students. (Mechanical Section Teacher)

Figure 35: Concern for Students Theme and leading Manifestations
(Post and Pre are split in the next two figures for clarity)

154

564 Technical Committee split [A]

530 Checklist for evaluating students during and every mid-term (all academic sections) [AT]

74 Remedial classes for weak students and enrichment classes for distinguished students [MT]

534 Punishment by transfer to other schools [ET, SG]

538 HoSs stop us from going to committees if we have any work to be done for the students [MT]

424 Revision notes for the students near the exams [MT]

123 Feedback or written admonishment [SG]

19 Incentives are given for extra work [HM, AT, MT, TG]

568 If staff in the school on time they can prepare and organise themselves to teach, follow-up, etc [SG] [SG]

567 Support group work is the crucial in the school and they have to be present at all times [SG]

569 if students complain about a teacher the school management investigates the case [SG]

Water filters to Sections [MT]

536 New toilets for students [ET]

118 The school entrance changed times [TG]

119 The entrance of the carpentry section changed [TG]

533 Educational support hall [AT]

529 Form for sections plans [A]

117 Increased price of food [TG]

116 Students' board committee meets the Headmaster every 2 weeks [TG]

115 Students' board committee [TG]

500 Form for noting attendance time before and after morning march [A]

33 Punishment is given for going to classes late, go out before end of day, or arrive late in morning [DH, EH, MH, AT, ET, MT, TG, SG]

445 Electronic Section graduates organised a ceremony [HM]

31 Written warnings [AT, MT, SG]

519 HoSs visit their teachers in classrooms [EH, A]

227 Follow-up and documentation committee [MH]

517 HoSs mark/ audit students' notebooks [EH]

333 HoSs mark their teachers' preparation books [EH]

319 Questionnaire for students about teachers [HM, DH, AH, MH, AT, MT, SG]

315 Focus on changing the student behaviour [EH]

349 Distinguishe teacher [EH]

523 Teacher left his students in the class and went to drink tea with his colleagues was punished [EH]

555 Audit on students' results marks committee [ET, MH, AT, MT]

128 Decor/ improve [DH, EH, AT, MT]

54 Sections organised their workshops and the layout of their machinary [EH, MT]

472 Committee Heads can ask a member of staff to join if there is a need [MH]

53 Educational guidance and poster [EH]

373 Garden [EH, E]

2 Staff discipline is important [AT, ET, MT, TG, SG]

73 The focus/goal is the student [DH, EH, MT, AT]

23 Ex... Doing something exceptional, coming in the afternoon, participating in committees, organising an exhibition [TG]

228 if students are controlled teachers can teach their lessons [MH, ET, MT]

218 Know the students opinion about their teacher and issues [MT]

18 People with experience are chosen to be on this team/committee [MH]

473 Prime committee (Quality, Follow-up i relevent to education and learning) [AH, MH, ET, SG] ... e relevent to education and learning [AH, MH, ET, SG]

522 Staff who wasn keen on teaching [EH]

6 Concern for students [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG]

540 for the safety of the students in workshops etc [MT] [MT]

24 New projects, new teaching methods, programs to help the education process [HM, DH, AT, MT]

299 if teachers are controlled will give good image to students [DH, MT, AT, ET, TG]

108 Leading by example in discipline [TG]

456 Discipline in all the school [DH]

455 Discipline of students in sections is important [DH, MT]

449 Measuring and managing the school's preformance committee [DH, AH, EH, AT, SG]

138 The school focus on educational attainment [DH, MT]

68 Analysis of results and exam results [AH, MT]

480 Emphasis on education when evaluating teachers [MH]

382 Discipline committee [HM, AT, TG]

526 Garden behind the management building [EH, ET, MT, TG]

437 Open day in workshops [HM, DH, AH]

446 Headmaster walked to Automobil section and talked to students [HM]

478 Teachers are evaluated by preparation, teaching, initiative, classroom management, collaboration [AH, EH, MH, ET, MT]

481 HoSs are told not to leave their students even if the school management call them [MH]

157 Chairs for students [EH, TG]

528 Every Section sets its own plan [AT]

460 Punishment for not going to surveillance or invigilation [DH, TG]

450 Developing the performance of teachers committee and the classroom environment [DH, A]

459 Teachers to sit at the gate of the sections [DH, MT]

9 Attendance, duties, and participation in activities are evaluation criteria [DH, MT]

462 Colloquium presented by our staff or external speakers [DH]

447 Sitting area and garden behind library [HM, DH, EH, ET, MT, TG]

334 Teachers must give students different types and increased number of homework [DH]

433 Incentives for staff who their students' attainment improved [HM, MH, MT]

394 Talented Students committee [DH]

441 Quizzes in math and physics for all Bahrain schools [DH]

454 Industrial training committee [DH]

458 Academic guides from Practical (Engineering) Sections [DH]

502 Electronic lessons in Maths and Website [AH]

396 Football / spor league [HM, DH]

443 Award ceremo for quizzes [HM]

77 Headmaster, Deputy Headmasters, & HoS visit teachers in classroom to know their strengths and weaknesses [DH, MH]

Concern for Students Theme and leading Manifestations (Post)

Concern for Students Theme and leading Manifestations (Pre)

576 We provide services to your and our sons [HM]

599 If a student is absent for few days we send a notification to his guardian [DH]

680 Posters and educational learning material in the classrooms [MH]

735 The Quality assurance uses the success percentage of students in teh SGA program to evaluate its performance & wants to improve the students success to[TG]

167 Controlling oneself in the classroom with the students is at the outmost importance [DH]

519 HoSs visit their teachers in classrooms [ET]

424 Revision notes for the students near the exams [EH]

460 Punishment for not going to surveillance or invigilation [DH, AT, ET]

725 Criteria for evaluating projects [AT]

640 Permission book with HoSs [EH, AT]

612 Teachers are evaluated by preparation, teaching, initiative, classroom management, collaboration with colleagues, maintenance [ET]

575 Our sons [HM]

596 Writing a recommendation letter to the student [HM]

3 Student discipline is important [DH, ET]

315 Focus on changing the student behaviour [DH]

300 if students are controlled teachers can teach their lessons [DH, ET]

727 Staff work from their own time on projects [AT]

382 Discipline committee [AH, AT]

138 The school focus on educational attainment [AH]

749 The library prepare Quizzes, magazines, posters for the different occasions [SG]

141 HoSs evaluates their teachers [AT]

6 Concern for students [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG]

695 Headmaster goes around to advise the students about careers [MT]

193 Open day [HM, MH, SG]

53 Educational guidance and posters [AT]

715 The Headmaster talks to the misbehaving students [AT]

74 Remedial classes for weak students and enrichment classes for distinguished students [EH]

73 The focus/goal is the student [DH, EH, AT, MT, TG]

108 Leading by example in discipline [ET]

2 Staff discipline is important [DH, AH, EH, AT, ET, MT, TG, SG]

33 Punishment is given for going to classes late, go out before end of day, or arrive late in morning [DH, MH, AT, ET, SG]

24 New projects, new teaching methods, programs to help the education process [MT, SG]

736 Incentives for social and admin guides who control the students,solve problems,excellence in managing his section & improved comm with students guard [TG]

747 The school applies the second and third procedure in punishment (ie jump the first) [SG]

534 Punishment by transfer to other schools [MH]

23 Extra work = Doing something exceptional, coming in the afternoon, participating in committees, organising an exhibition [HM]

595 We bought a photocopier from the school's money and MoE couldn't provide us one for 3 years [HM]

653 Revision notes for the students [AH]

32 Feedback or written admonishment [DH, ET]

26 Management by walking around [MH]

447 Sitting area and garden behind library [TG, SG]

31 Written warnings [AT, ET]

19 Incentives are given for extra work [HM, MT, TG, SG]

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The seventh structural change is the establishment of a Discipline Committee to deal with students' misbehaviour:

> There was a discipline committee in the Arabic Section. It was created originally because there were some Tunisian teachers who couldn't cope with misbehaving students. The creation of the committee gave some power to those teachers and permitted them to teach their classes. This problem was found later through discussion of measures to be a school wide problem, so the idea was discussed and a committee for the whole school was set up. (Academic Section Teacher)

> The discipline committee focuses on students' behaviour and studies cases of students. (Techno-Element member)

The eighth structural change was the establishment of the Students Board (Student Committee):

> A student board is one of the committees any school is obliged to have. However, in our school it wasn't effective at all. Now the members are elected, and students' suggestions are executed. The board meets the Headmaster every three weeks. The board has its own activities. On occasions they invite external speakers. Moreover, they raise issues and negotiate their requirements. For example, prices of food in the canteen increased. The board met with the social guides (responsible for the canteen) and then with the school management and they managed to persuade the school management to pressure the catering company to reduce its prices. (Techno-Element member)

Besides structural changes there were changes in other manifestations. For example, a term was coined regarding a number of committees "Prime Committees" and when asked about them a member of the support group defined them as:

> Prime committees include quality, performance measurement and management, health and safety, audit, attainment, and follow-up and documentation. They are prime because they represent the backbone of the school and they deal with critical issues. For example, a Technical School is a number of workshops with heavy machinery and it is absolutely top priority that we ensure all machinery, equipment, workshops, etc are safe to use. Moreover, the prime committees deal with learning and teaching. (Support member)

Formal practices is by far the most manifestation predicating concern for students. For different benefits to students they could be further classified into : emphasis on attendance and time management, measuring performance and diagnosing the situation, setting customised plans, and finally rewarding those who improve attainment.

Staff discipline is paramount. It is emphasised for two main reasons. Firstly, in a school where lessons are sequential and concurrent, absenteeism or lateness of a teacher could

turn a class into a "war zone" (chaos) or even the school. It could also be hazardous for the students:

> Students when their teacher is late or absent, without a substitute could vandalise. Our sections are full of machinery and tools. The students could hurt themselves or others. (Mechanical Section Teacher)

Absenteeism, lateness and lacking the ability to manage the classrooms are all recipes for low student attainment. These are the causes of punishment with the most severe type of punishment (transfer or the sack). The Electrical Sections' Teachers comment:

> A teacher can't teach if he can't control his class. A teacher mustn't send 4 or 5 students every few minutes to the Administrative Guide. This wastes the time of the administrative guides and reduces their focus on bigger issues. (An Electrical Section Teacher)

And another adds

> Absenteeism or frequent lateness means recklessness... Recklessness leads to poor attainment and hence unacceptable results. (An Electrical Section Teacher)

Secondly, it could ruin all efforts for improving the students' behaviour. The school with different endeavours encourages discipline of staff. They believe a change of behaviour could be achieved by leading by example:

> Staff have to sign in the school's registry book when they arrive in the morning. Then they must sign again in their section's registry book. Two registry books encourage staff to arrive early. It also encourages staff to go to their sections immediately after arriving in the school. When teachers are in their sections they feel obliged to go to the morning assembly. Order in the morning assembly projects order in the whole school. If students see their teachers present and respecting the morning assembly they too will respect it and respect the school. (An Academic Section Teacher)

Other reasons as also highlighted by members of the Support group are:

> When a teacher comes early he will be able to prepare for his lessons. For us as support groups we'll be there to provide timely services. For example, a Financial Supervisor has to be there at all times just in case a section needs to buy something urgently and needs approval and cash. The Store Keeper needs to be there to provide any materials or tools for teaching. The Learning Resource Centre has to be open for students and staff from early morning and has to be supervised at all times too. (Support Group)

Besides discipline the actual act of teaching and relevant tasks such as preparation, marking, etc all reinforce concern for students. The Mechanical Sections Heads state how important teaching their students is:

> Head of Sections are up to their necks with work. Even while we are teaching we receive documents, requests from some of our staff for material, invitations to attend meetings with the management, etc. We requested from the Ministry to free us from teaching. We still haven't heard a satisfactory answer, but the school management instructed us never to leave the students while we have a class with them. They say to us "when you're teaching the time is the students' time". (Mechanical Sections Heads)

The second set of practices is related to measuring staff performance and the students' attainment. Academic sections, for example, use checklist to evaluate their students during the term as a continuous evaluation mechanism. Head of Sections mark and audit samples of students' notebooks. Moreover, exams and their results are analysed to be used in planning (third set of practices):

> Preparation is crucial and has to be continuous. We have a plan for the subject that everyone follows. The other thing we concentrate on is continuous evaluation of students' attainment. For it we use a checklist that we use twice – before the mid term exam and after. The evaluation using the checklist is feedback for the students which in effect motivates the students to improve. (Academic Section Teacher)

> Evidence of exams, and their analysis are very important to my work as a Head of Section. All our plans for teaching and for the sections are based on them. (Academic Section Head)

And an academic teacher adds:

> Sections set their own plans based on their situation and based on their needs.

Staff are evaluated from multiple perspectives. The major marks are for the things done for, and with, the students. Head of Sections focus on ensuring their teachers deliver the specified curricula through different means:

> We look at the preparation plans, and mark students' notebooks and compare them to the teacher's plans and objectives. (Electrical Section Head)

> We also visit the teachers twice : at his desk and in his classroom. In the visit at his desk, I ask him for all evidence for his work with the students such as exam papers, and marks. The classroom visit is for the purpose of knowing the teachers strengths and weaknesses in teaching, to provide him feedback and for me to plan on how to improve his teaching. (Electrical Section Head)

Another practice for diagnosing performance is listening to the students' complaints about their teachers (different practice from using the questionnaire). If a complaint is received from the students about a teacher's weak comprehension/knowledge in his subject the school will immediately investigate the situation and take the necessary action:

> The school will end the contract in the case of a foreign teacher and will transfer a Bahraini teacher to another school if they receive a complaint from his students about his knowledge and capability in teaching. The school fairly and thoroughly investigates the complaints. The students' level could be below the required standard prior coming to our school, so these things have to be checked. (Support Group)

The last set of practices that are seen by the Headmaster, Mechanical Section Heads, and Mechanical Section teachers to reinforce Concern for Students assumption relate to rewards. Action is taken against staff who for different reasons as mentioned above could impact negatively on student attainment, and learning or could put the students in danger. Conversely, the school rewards staff who improve the attainment of students or produce a project, research, new teaching methods, etc that could lead to improved attainment.

Cultural forms also enforce concern for student assumptions. Two stories were told by the Electrical Section Heads that emphasise the importance of teaching and discipline.

> I had a new teacher who wasn't keen on teaching. He had every intention to leave, but he was obliged by a contract. I tried in different ways to change his mind. I afforded him training, but he refused. Therefore, I had no other option except informing the school management who in turn gave him a warning and transferred him to another school.

> There is a teacher in the school who left his students in the portacabins (classrooms) and went to the staffroom to drink a cup of tea. The teacher teaching in the next classroom heard noises coming from the adjacent classroom and called his Head of Section to investigate what was going on. The Head of Section contacted the school management who immediately requested the teacher to go to his classroom and then admonished him.

A number of rituals seem to be congruent with concern for students. The venue for the open day ritual was moved from the school's main hall to be performed in the sections. Here is what the Headmaster reasoned:

> The open day is a familial event for the teaching and administrative personnel, students and their guardians. We clear the air and we give a chance to the students' guardians to know the school. Students' guardians in the open day don't go anymore to the school hall or to classrooms. Now, all results are in the sections. The students' guardians go to the sections where their sons are studying. They meet their sons' teachers and classmates. Guardians now appreciate what their sons are studying. For example, they know now their son is studying automobile. They have an image of the section and how serious their sons study is. In addition, to increasing the awareness of the parents, the section also is the most knowledgeable about their sons – students spend about 18 hours a week in the section. So, the students' teachers in sections can give informed feedback to the guardians.

Other rituals and ceremonies were introduced like a football league to increase the belongingness of students to the school, quizzes and award ceremonies, colloquiums

either from our own staff or external speakers about important or emergent issues e.g. smoking, industry and work ethics, sport injuries, etc.

Physical arrangements also are seen by most as confirming Concern for Student values. An educational support hall for teaching using simulators or self-learning was created. The area behind the management building was fenced, and was a prohibited area for students. Now, it is a garden and there are chairs for students. The students are free to go anywhere in the school. New toilets were built in the school. Water filters for every section were installed. The entrance to the school was replaced. Sections themselves improve their décor and change the layout of their machinery for better access and safety.

Fairness

Fairness has become more salient in the post culture study. A large number of manifestations is common between the prior and post study. The new manifestations seem to focus on evaluating staff from multiple facets, standardised mechanism for evaluating sections, rewards and rewarding by clear written criteria, and assignment of committee or management board membership is based on credentials.

To evaluate teachers fairly, the school management besides taking on board the Head of Sections evaluations, also evaluated them by their students' results:

> We (management) evaluate teachers with a wider lens. Head of Sections evaluate their teachers thoroughly according to specific criteria. They know their capabilities and the work they accomplished. (The Deputy Headmaster)

> Our evaluation is normally distributed – a small number at the top and bottom, but the majority get average evaluation. We use different measures and mechanisms. Mid-term and end of term exams results, attendance and classroom management are some measures. Head of Sections, Education Specialists, Head of Committees, Students through questionnaires all provide us with information about teachers' performance. We don't use one evaluation criterion not even students' results as they could be biased or unreal. We have even to look at teachers past performances. (The Headmaster)

In the past, Heads of Sections used to evaluate their teachers using the Civil Service Bureau evaluation form. It was and still is severely criticised. Heads of Sections used to put a percentage for each teacher on his evaluation form and then try to divide the percentage on the different perspectives in the form. The form is believed to be invalid. The Deputy Headmaster proposed a form for each teacher to be filled in by the Head of

Sections four times a year. At the end of the year the average mark is taken as a true, more objective evaluation.

Not just the evaluation of teachers became fairer, but also the evaluation of section projects and programmes. The criteria used focus on how beneficial the programs are to the main stakeholders and how they are linked to performance data.

Another area where manifestations enforce fairness is assigning staff to the school's prime committees. In the past, all committee memberships were based on individuals' will. However, this changed with the introduction of the PMS. Will is not enough as a criterion. Criteria such as experience, accomplishment, and performance are now top selection criteria.

> Anyone can nominate themselves for the management board. After all nominees are registered the staff elect the members they want to be on the management board. There are permanent members based on their functional area. Once the management board is formed a list of committees for the purpose of serving the school's different needs is suggested. The list is then distributed and staff can nominate themselves for the different committees. If we look at the list of committees, there are prime committees and less important committees. Primes like quality, control, performance management, etc. Less important committees are e.g. agriculture. For the nomination for the prime committees there are conditions staff have to meet. For example, for the Quality Committee someone with experience in quality should apply. Even after staff nominated themselves it is not guaranteed they will be assigned to the committee they chose. The school management studies the nominees and decides on those who meet the set criteria. (Mechanical Sections Heads)

Figure 36: Fairness Theme and leading Manifestations
(Post and Pre are split in the next two figures for clarity)

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Fairness Theme and leading Manifestations (Post)

Nodes in the diagram:

- 473 Prime committee (Quality, Follow-up i relevent to education and learning) [MH] ... e relevent to education and learning) [MH]
- 472 Committee Heads can ask a member of staff to join if there is a need [MH]
- 77 Headmaster, Deputy Headmaster, & HoS visit teachers in classroom to know their strengths and weaknesses [DH]
- 499 Staff evaluation form "prepared by school management" and to be applied 4 times a year [EH, MT]
- 520 Headmaster split an incentive of 2 steps to 2 incentives with 1 step each [AT]
- 34 Management board is elected [AT, TG, SG]
- 284 Standardised form for following-up sections [AT]
- 436 Headmaster and Deputy Headmaster meet to discuss staff case for punishment [HM]
- 737 Sections submit their projects to the management board and with a list of the staff who are working on them [TG] [Pre]
- 725 Criteria for evaluating projects [AT] [Pre]
- 244 Anyone can submit a proposal to the school management or secretary of the management board [MH] [Pre]
- 485 Teacher Skived-off and was given a warning [M]
- 521 Written criteria for deciding who deserve incentives [EH]
- 519 HoSs visit their teachers in the classroom [EH, AT]
- 217 punishment given for arriving late or leaving early before end of day and to anyone [MH]
- 28 Written criteria for deciding who deserve incentives (used by management board) [HM] [Pre]
- 756 Once the accounts are closed for the academic year even the Headmaster can't withdraw money [SG] [Pre]
- 18 People with experience are chosen to be on this team/committee [EH, MH, AT]
- 9 Attendence, duties, and participation in activities are evaluation criteria [HM, DH, MT, TG, SG]
- 114 We are evaluated through visits by MoE personnel with feedback provided to Headmaster [HM]
- 428 Staff evaluated from multiple angles [HM, EH, AT, MT, TG]
- 22 Fairness [HM, DH, MH, AT, ET, MT, TG, SG] [Pre Post] [HM, DH, AH, EH, MH, AT, MT, TG, SG]
- 608 Teacher came and said I want incentive story [DH] [Pre]
- 675 Any teacher makes a mistake will be punished [MH] [Pre]
- 581 Member of staff who worked for 20 years and didn't get an incentive [HM] [Pre]
- 726 Workshop about project evaluation [AT] [Pre]
- 205 Teachers earn extra credit from working in committees / produced a project [TG]
- 319 Questionnaire for students about teachers [HM, DH, MT]
- 117 Evaluation by results doesn't reflect real performance [HM]
- 310 Every teacher is evaluated as part of the section [EH, MT]
- 318 Management board [MH, TG] [Pre Post] [MH]
- 199 Incentives are in the hand of management [DH] [Pre]
- 71 The school compares and discusses the students' results of the different years [HM]
- 413 Teachers are evaluated by their students marks / results [HM, ET]
- 141 HoSs evaluate their teachers [DH] [Pre Post] [HM, DH, AH, EH, MH, AT, MT, SG]
- 531 HoSs have folders for teachers accomplishments and failures [MT] [Pre Post] [AT, MT]
- 304 Extra work = Doing something exceptional, coming in the afternoon, participating in committees, organising an exhibition [HM, DH] [Pre Post] [TG]
- 532 The school management distributed a list of disobediences [MT] [Pre Post] [AT]
- 33 Punishment is given for going to classes late, go out before end of day, or arrive late in morning [DH, MH, AT, ET, SG] [Pre Post] [DH, EH, AT, MT, TG, SG]
- 434 Incentives committee [HM, DH] [Pre Post] [HM, DH, AT, SG]
- 683 Form for proposals and projects [MH, MT, TG] [Pre]
- 460 Punishment for not going to surveillance or invigilation [DH, AT, ET] [Pre Post] [TG]
- 484 The number of incentives given to each section is relative to the number of staff in that section [HM] [Pre Post] [EH, MH]
- 21 HoSs nominate their teachers for incentives [HM, DH, MT] [Pre Post] [DH, AH, EH, MH, MT, SG]
- 345 List of committee names distributed and teachers select the committees they want to join [AT] [Pre Post] [AH, EH, AT, MT, TG, SG]
- 31 Written warning [AT, ET] [Pre Post] [AT, MT, SG]
- 534 Punishment or transfer to other schools [MH] [Pre Post] [SG]
- 322 Feedback or written admonishment [ET] [Pre Post] [SG]
- 25 Evidence required for all work [DH, MT] [Pre Post] [DH, AH, EH, MH]
- 302 Incentives are given for extra work [HM, DH] [Pre Post] [TG]

Fairness Theme and leading Manifestations (Pre)

756 Once the accounts are closed for the academic year even the Headmaster can't withdraw money [SG] [Pre]

21 HoSs nominate their teachers for incentives [HM, DH, MT] [Pre]

737 Sections submit their projects to the management board and with a list of the staff who are working on them [TG] [Pre]

484 The number of incentives given to each section is relative to the number of staff in that section [HM] [Pre]

581 Member of staff who worked for 20 years and didn't get an incentive [HM] [Pre]

543 Evidence required for all work [MT] [Pre]

25 Evidence required for all work [DH] [Pre]

460 Punishment for not going to surveillance or invigilation [DH, AT, ET] [Pre]

28 Written criteria for deciding who deserve incentives (used by management board) [HM] [Pre]

434 Incentives committee [HM, DH] [Pre]

199 Incentives are in the hand of management [DH] [Pre]

23 Extra work = Doing something exceptional, coming in the afternoon, participating in committees, organising an exhibition [HM, DH] [Pre]

19 Incentives are given for extra work [HM, DH] [Pre]

22 Fairness [HM, DH, MH, AT, ET, MT, TG, SG] [Pre]

141 HoSs evaluates their teachers [DH] [Pre]

608 Teacher came and said I want incentive story [DH] [Pre]

345 List of committee names distributed and teachers select the committees they want to join [AT] [Pre]

725 Criteria for evaluating projects [AT] [Pre]

532 The school management distributed a list of disobediences [MT] [Pre]

33 Punishment is given for going to classes late, go out before end of day, or arrive late in morning [DH, MH, AT, ET, SG] [Pre]

726 Workshop about project evaluation [AT] [Pre]

531 HoSs have folders for teachers accomplishments and failures [MT] [Pre]

675 Any teacher makes a mistake will be punished [MH] [Pre]

244 Anyone can submit a proposal to the school management or secretary of the management board [MH] [Pre]

27 Management board [MH, TG] [Pre]

683 Form for proposals and projects [MH, MT, TG] [Pre]

31 Written warnings [AT, ET] [Pre]

538 Feedback or written admonishment [ET] [Pre]

534 Punishment by transfer to other schools [MH] [Pre]

Fairness Theme and leading Manifestations (Pre)

Accountability

Accountability is another assumption shared by all functional groups. Pre introducing the PMS, practices mainly focused on acknowledgment of decrees and procedures. The school management mainly used evidences to hold staff accountable. For example, staff signatures were required when a new procedure was introduced. Audits on evidences of programmes and projects accomplishment were also conducted. Some of the practices still exist in particular for acknowledgement of decrees, because the school is instructed by the Ministry of Education. However, there are new practices noted during the post study that focus more on results and outcomes.

The committees structure/chart changed. As mentioned earlier, the Technical Committee was split and a Performance Measurement and Management Committee was created. The Attainment Committee which emerged from the Technical Committee goes to sections to study how their plans are inline with the results obtained by the Performance Measurement and Management Committee. Sections now have plans and targets to meet. Here is what the Electrical Section Heads and Support Groups had to say about the Performance Measurement and Management Committee and the workshops associated with it:

> We had a meeting chaired by the Headmaster and the members of the Performance Committee. The committee explained to us the school's strategy, processes, how the different processes connect, our responsibilities, and the targets we have to achieve. (Electrical Section Heads)

> The Headmaster encouraged us to improve our performance. He praised the system and its clarity and objectivity. He told us "now we'll have robust data about how we perform". (Support Group)

The PMS and performance indicators were not welcomed at first, because staff felt they were going to be held accountable:

> The Performance Measurement team were active, but there were some people who weren't happy. They were kind of worried that they will be held responsible. In the past staff used to feel more laid back. However, now they know their efforts are evaluated. (Mechanical Section Head)

And another added:

> Staff know there is continuous follow-up and analysis of their results. Most teachers bear in mind now there is evaluation of their efforts in the classroom. They think in advance that their students are going to fill in a questionnaire about them and they think the students' responses are going to be reported to the schools' management team. (Mechanical Section Head)

Performance data are compiled and investigated further to define the reasons for unsatisfactory performance. The discussion starts in the management team meeting. Once the overall area of poor performance is defined the Head of Section accountable takes this problem to his staff to deal with.

> When mid-term or end of term results are poor we (teachers) in the section and Heads of Sections analyse the exam (exam as a whole and individual questions) to identify the reasons. Moreover, even when there are complaints or low satisfaction from the students for example with the amount of homework, teaching methods, classroom management, etc we as a group discuss the causes and what we can do. (Mechanical Sections Teachers)

There is a chain of performance measures from bottom to top. Teachers are evaluated and held accountable for their parts in their sections' plans. Furthermore, sections are also held accountable to play their part in the school's overall plan. Teachers are followed-up by their Heads of Section and Heads of Section are followed-up by the school management.

Accountability applies to everyone in the school. Even some staff think working in committees is voluntary, which is true, but under-performing is not an option.

> Committees are formed at the beginning of the year. The school announces the available and required committees. Staff then choose the committees they want to join from a list. After that the committees are formed and their heads appointed, they could be members of the management board or others who are not. During the year if there are no tangible/measured activities by the committee the Headmaster dismisses the Head of the Committee and appoints someone else. (Mechanical Sections Head)

A change in the secretary's office was also seen to be reinforcing accountability. The Secretary, Typist, Financial Administrator and Financial Technician used to share the same office. Many staff in the school did not distinguish their staffs roles. They were asking the Financial Administrator to photocopy some notes, asking him about where the Headmaster was, some staff even used to go inside the office and help themselves to what they needed or wanted such as photocopying, stationary, etc.

> They used to do some of each others' work as staff mixed their roles. The financial matters are quite private and shouldn't be exposed to everyone. There are calculations (budget and expenses),

quotations, receipts, etc and if there is a mistake or something lost it could get the Financial Administrator in trouble and the management too. (The Deputy Headmaster)

Figure 37: Accountability Theme and leading Manifestations
(Post and Pre are split in the next two figures for clarity)

169

71 The school compares and discusses the students' results of the different years [HM, MT]

473 Prime committees (Quality, Follow-up i relevent to education and learning) [MH, ET] ... e relevent to education and learning) [MH, ET]

227 Follow-up and documentation committee [MH]

539 HoSs evaluate the technical aspects of the staff job ... the school management evaluate the discipline aspects [MT]

453 Technical Committee split [AT]

68 Analysis of results and exam results [MT]

452 Audit on students' results / marks committee [DH, MH, AT, ET, MT]

141 HoSs evaluates their teachers [EH]

310 Every teacher is evaluated as part of the section [EH, MT]

519 HoSs visit their teachers in teh classroom [EH, AT]

173 Questioning about the student's results [EH, MT]

451 The students' attainment committee [DH, AT]

72 The school management request HoS to submit a report with the students results and observed strenghes and weaknesses [HM, MH]

12 Staff are required to sign for receiving documents [AH, MH, ET, MT]

448 Modification in secretary's office [DH, AT, MT, SG]

25 Evidence required for all work [EH]

78 Management by objective (ie based on plans set by staff) [EH, AT, SG]

487 School management follows us if we are meeting our targets [MH]

486 Balanced Scorecard [MH]

16 Measuring and managing the school's performance committee [DH, AH, EH, AT, SG]

335 Using PI to know how a section and a group of students are doing [MH]

119 Accountability [HM, DH, AH, EH, MH, AT, ET, MT, SG]

344 Questionnaire for teachers about the school administration [DH, SG]

58 The school's management follows-up sections and provide feedback [HM, EH]

471 if the committee is not active the school management changes its head [MH]

8 Work duties (job discriptions) were distributed to staff (all) [AH]

413 Teachers are evaluated by their students marks / results [HM, AH, EH]

503 Work duties and rules were distributed to HoSs, but not their rights with their staff [AH]

531 HoSs have folders for teachers accomplishments an failures [AT, MT]

572 Headmaster speech about the performance and performance measurement committee [SG]

319 Questionnaire for students about teachers [HM, DH, AH, MH, MT, SG]

Accountability Theme and leading Manifestations (Post)

170

586 Every HoS submits a report about his section ... The content differs from one section to another [HM] [Pre]

587 The school management goes to sections to make sure what HoSs wrote in their reports is correct or not [HM, DH] [Pre]

13 HoSs is the communication link between the school management and their teachers [HM] [Pre]

219 Everything gets distributed [HM] [Pre]

61 All work documented [SG] [Pre]

8 Work duties (job discriptions) were distributed to staff (all) [ET] [Pre]

26 Management by walking around [DH, MH] [Pre]

119 Accountability [HM, DH, AH, EH, MH, ET, MT, TG, SG] [Pre]

583 Monthly report from sections with teachers signature for acknowledging that their head of section passed the management's instructions [HM, AH, EH] [Pre]

585 Request to conduct interviews letter [HM] [Pre]

732 Decision based on evidence [TG] [Pre]

12 Staff are required to sign for receiving documents [HM, AH, EH, MH, MT, SG] [Pre]

730 The Headmaster requested sections to submit reports or feedback about their work [TG] [Pre]

733 Social guide is evaluated by discipline, accomplishing the studies that he proposed doing, or reports about students [TG] [Pre]

78 Management by objective (ie based on plans set by staff) [TG] [Pre]

755 Register for expenditure [SG] [Pre]

532 The school management distributed a list of disobediences [MT, TG] [Pre]

227 Follow-up and documentation committee [MT] [Pre]

Accountability Theme and leading Manifestations (Pre)

171

Autonomy

Autonomy is the next salient theme. In the pre-study, autonomy mainly appeared in processes related to sections. However, autonomy in post relates to both sections' processes as well as committees' processes.

Practices in pre seem to be passive. For Heads of Sections autonomy was more of a facilitation job. For example, Heads of Sections had the 'permission books' and had the responsibility for ensuring there was a substitute teacher with the students if the regular teacher had to go out on a personal matter. Other practices included implementing the school's strategy and just reporting on what had been accomplished.

In the post study, Sections set their own plans based on their needs.

> Every Head of Section has freedom in managing his section. (The Deputy Headmaster)

> The needs of the sections come from the Heads of Sections. They know best. Therefore, the school management gave them the freedom to set their own plans. They all have programmes and projects for each semester and for the whole year. For example, their programmes include electronic teaching materials, training courses for staff, and improving the learning environment in their section. (Academic Section Teacher)

A Mechanical Section Teacher states what plans his section has:

> We are trying to extend the section. We plan to build a new classroom and sign-off some machinery. We are also going to train some of our teachers and provide some remedial classes for our weak students. We as teachers in the section have to take part. Our Head of Section is going to evaluate us even based on our part in completing the sections plans. (Mechanical Section Teacher)

Sections set their own plans, but they must inform the school management. The purpose, according to The Electrical Head of Section, is to ensure that the sections' plans complement the school's overall plan. Moreover, it will enable the school management to identify what the sections' requirements are and will enable follow up.

If a section is found to be underperforming, the Head of Section and the Section itself has to improve its performance. A Mechanical Section Teacher told how they (teachers and Head of Section) as one section dealt with poor results or dissatisfaction of students:

> When mid-term or end of term results are poor we (teachers) in the section and Head of Sections analyse the exam (exam as a whole and individual questions) to identify the reasons. Moreover, even when there are complaints or low satisfaction from the students for example with amount of homework, teaching methods, classroom management, etc we as a group discuss the causes and what we can do. (Mechanical Sections Teachers)

The underperforming staff are questioned by their Head of Sections, but achievers are praised and nominated for incentives. Different from the pre-study, staff who were nominated during the use of the PMS were given incentives based on their Head of Section's recommendations.

Autonomy in running committees was observed through a number of formal practices. Firstly, the Headmaster states that committees are given complete autonomy:

> We have eight prime committees in the school and auxiliary committees. Each committee has a head, a deputy head, and a secretary. The committees have general goals and more specific goals to do their job in the school. To activate the committees we (management) gave complete autonomy. Each committee is a unit by itself and works independently or with minimum direction. (The Headmaster)

Secondly; any member of staff can register to join a committee. Thirdly, when number of nominees for a certain committee is above seven, the nominees are called to sit together and decide who should be members of the committee. Fourthly, once the number of members for the committee is between five and seven the members will sit together to decide who should be head, deputy, and the secretary. Finally, committee heads could also approach a member of the school's staff to ask him to join if there is a need or that member has qualities that could benefit the committee.

> Sometimes during the year new members are asked to join based on the activities performed in the committee at that moment. For example, in my committee last year I needed someone expert in IT to produce an idea we had, so I registered the IT teacher in my committee. (Mechanical Section Head)

Moreover, there are other practices in the pre which are common with the post and are seen to mean autonomy for the Case School staff. These practices are concerned with teachers' evaluation, nomination for incentives, and Communication Structure. The main observation in post is that more staff believe these practices mean autonomy as compared to the pre where mainly the school management stated these practices encourage autonomy.

Figure 38: Autonomy Theme and leading Manifestations

227 Follow-up and documentation committee [MT] [Pre]

733 Social guide is evaluated by discipline, accomplishing the studies that he proposed doing, or reports about students [TG] [Pre]

82 HoS delivers the management messeges to their sections [EH] [Pre Post] [MT]

78 Management by objective (ie based on plans set by staff) [TG] [Pre Post] [EH, AT, SG]

13 HoSs is the communication link between the school management and their teachers [EH] [Pre Post] [HM, MT]

141 HoSs evaluates their teachers [DH] [Pre Post] [HM, DH, AH, EH, MH, AT, MT, SG]

19 HoSs nominate their teachers for incentives [HM, DH] [Pre Post] [DH, AH, EH, MH, ET, MT, SG]

529 Form for sections plans [MT] [Pre Post] [AT]

55 Every HoS is a manager in his section [DH, TG] [Pre Post] [DH, EH, MT]

528 Every Section sets its own plan [AT]

65 Every section prepares courses for its teachers [DH, AT]

473 Prime committees (Quality, Follow-up i relevent to education and learning) [MH] ... e relevent to education and learning) [MH]

566 Every head evaluates the staff below him [SG]

472 Committtee Heads can ask a member of staff to join if there is a need [MH]

701 Centrality about planning, but autonomy in implementation [MT] [Pre]

140 Standard for all sections [MT] [Pre]

648 Sections organise their staffs' rooms by themselves [EH] [Pre]

37 Autonomy [HM, DH, EH, MH, AT, MT, TG] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, MT, SG]

18 People with experience are chosen to be on this team/committee [MH]

154 Every teacher has his own work, but has to up-date us [EH]

562 If nominees for a committee are more than 7, the people will sit together to decide who stays and who goes [SG]

681 Automobile section hung students pictures in the section to increase their belonging ness [MH] [Pre]

588 HoSs are requested to submit monthly report about their sections' accomplishments [HM] [Pre]

640 Permission book with HoSs [AT] [Pre]

730 The Headmaster requested sections to submit reports or feedback about their work [TG] [Pre]

606 HoSs have the criteria for incentives [DH] [Pre]

531 HoSs evaluate the technical aspects of the staff job ... the school management evaluate the discipline aspects [MT] [Pre Post] [MT]

77 Headmaster, Deputy Headmasters, & HoS visit teachers in classroom to know their strengths and weaknesses [DH, MH]

173 Questioning about the student's results [MT]

58 The school's management follows-up sections and provide feedback [HM, EH]

54 Sections organised their workshops and the layout of their machinary [MT]

448 Modification in secretary's office [HM, DH, AT]

480 HoSs visit their teachers in classrooms [EH, AT]

499 Staff evaluation form "prepared by school management" and to be applied 4 times a year [EH, MT]

68 Analysis of results and exam results [MT]

391 Head of committees choose the members for their committees [MT]

72 The school management request HoS to submit a report with the students results and observed strengthes and weaknesses [HM]

430 Committees members sit with each other to decide who to lead [HM, DH, MH, AT, SG]

174

Transparency

Transparency prior to introducing the PMS was an assumption possessed primarily by the Headmaster. In the post-study it is no longer a belief for a small group. Transparency is now shared by all occupational groups.

In the pre-stage the Headmaster told the researcher two stories of staff going to ask him why they did not receive incentives. The Headmaster told them "go and write me why I should give you incentives". The researcher remembers clearly how the Headmaster boasted about his transparency. The Headmaster believed that staff know the criteria for incentives, but they pretended they did not. To the researcher there is an apparent contradiction in what the Headmaster told him i.e. if staff knew what the criteria were why would they come asking for incentives? Similar stories did not happen in the period between pre and post studies of culture.

From the practices that were introduced is, announcing who received financial incentives at the end of year ceremony in addition to announcing who received gratitude certificates. Although, some staff highlighted that the reasons are not made known in the ceremony, they said they know at least why the people in their sections received financial incentives. Some of them even said it is not feasible to announce the reasons for the fifty incentives given. The researcher might have another view on it and suggests at least announcing clusters of reasons.

> Each Head of Section can nominate up to two of his teachers for a 100 Bahraini Dinar financial incentive. Those who receive incentives are paid tributes in the end of year ceremony. (Electrical Section Teacher)

An academic Section Teacher's reasons why the reasons for incentives are not announced:

> The school has about 240-250 teachers, therefore, it is difficult to announce the achievements of all. (Academic Section Teacher)

Transparency also was observed in manifestations related to the management board, and committee membership. Most functional groups stated that members of the management board are now elected as opposed to the majority being nominated by the school management pre the introduction of the performance management system. For committee membership a list of all committees is sent to all staff and staff select the committees they wish to join. Following the deadline for submitting all forms, the forms are counted in the Learning Resource Centre in front of the staff.

There is an election for the management board yearly. There are permanent members due to their roles and those are: the Headmaster, Deputy Headmaster, Registrar, and Learning Resource Centre Specialist. There are also elected members. Some staff nominate themselves and the rest of the staff vote for the ones they want. There are prime committees and some more usually are suggested based on the school's needs and based on the recommendations of the management board. Once the required committees are agreed, the school announces them and issues a list with committee names and requests the staff to select the committees they want to join. After the staff select the committees they want to join, a count is made in the Learning Resource Centre. The staff of each committee then meet to agree of who will lead, act as a deputy, etc. Once agreed, they inform the management board. Finally the school sends a circular with the names of committees and their members to the whole school. (Electrical Section Head)

Through direct communication with the performance measurement team the researcher was informed by the team that there are overlaps in requests from different committees or functional areas. This was sorted out i.e. the performance measurement team agreed with the different individuals requesting information to unify the source and ask for the information once. The impact of unifying the source was highlighted by one of the Academic Section Heads:

Since last year, there is more specificity e.g. the documentation committee request a number of specific things instead of other committees. In the past, more than one committee used to request the same data in different formats. We were quite confused, however, now we are not. (Academic Section Head)

Transparency was also reinforced through technology. The school created a website, to post its latest news, information, etc.

Figure 39: Transparency Theme and leading Manifestations

7 Transparency [HM, DH, AT, MT, TG] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG]

582 Staff know the criteria for incentives this year, but some pretend they don't know [HM] [Pre]

606 HoSs have the criteria for incentives [DH] [Pre]

532 The school management distributed a list of disobediences [MT] [Pre Post] [AT]

345 List of committee names distributed and teachers select the committees they want to join [AT] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG]

323 Open door policy [HM, AT] [Pre Post] [HM, DH]

44 End of year ceremony and paying tributes [HM] [Pre Post] [TG, SG]

562 If nominees for a committee are more than 7, the people will sit together to decide who stays and who goes [SG]

530 Checklist for evaluating students' during and every mid-term (all academic sections) [AT]

726 Workshop about project evaluation [AT] [Pre]

580 Student results story [HM] [Pre]

585 Request to conduct interviews letter [HM] [Pre]

491 The school's website committee [AH]

81 Management board is elected [HM, DH, EH, MH, AT, ET, TG, SG]

219 Everything gets distributed [HM] [Pre]

725 Criteria for evaluating projects [AT] [Pre]

93 The school management distributed a list of criteria for incentives [HM] [Pre]

728 Many forms of communications to ensure staff read announcements [TG] [Pre]

129 3 to 4 circulars arrive a day & HoSs have to organise meetings with their staff to inform them about the content & file minutes in one of 10 folders [MT]

24 Staff are required to sign for receiving documents [MT]

581 Member of staff who worked for 20 years and didn't get an incentive [HM] [Pre]

489 Requirements from the different committees and staff are clear [AH]

175 The school announce the names of the people who received incentives [HM, EH, AT, ET, MT, TG, SG]

584 The MoE recognised the effective communication within the school [HM] [Pre]

525 Announcement of the schools' committees and their members [EH]

Concern for Staff

Concern for Staff changed in different ways; from being merely sympathetic to more needs satisfying. In the pre-study, what was revealed of manifestations centred around helping staff in tough times e.g. if a member of staff lost a relative, the school would send a delegate to console him – this is something quite common in Arabic countries. Moreover, roses were given to all teachers (teachers and Heads of Sections) on the Teacher's Day. To the Academic Section Teachers it was something exceptional. "It had never been done before" the Academic Teachers said. They felt appreciated. They told the researcher that some teachers almost cried when receiving the rose and when the Headmaster hugged them.

In the post study, active engagement with the staff needs was observed. The creation of the Performance Measurement Committee and administration of questionnaires to staff about the school management signalled a new era. Issues of importance to staff were rated such as dealing with student misbehaviour, facilities, transparency and fairness in distributing rewards and perks, etc.

For some of the staff's persistent problems solutions were proposed and implemented. Student misbehaviour was looked at in the light of a section's experience. The Arabic Section in the pre- study had a discipline committee. The idea was rolled-out in the post after a discussion with the school management. Moreover, a practice was introduced that states all student problems should be directed first to Heads of Sections. This helps two groups of staff, the Administrative Guides and Teachers. In the past, the administrative guide would receive every problem even the minor issues, which prevented him from focusing fully on bigger issues. Teachers were not satisfied either. They felt their problem with the student in fact worsened instead of being solved or improved. Students who used to go to the Administrative Guidance used to come back and behave even worse. They felt nothing would happen to them if they misbehaved. They knew they would be allowed to return to class. The teachers felt powerless. Some of them even "bit the bullet" and kept quiet and never again sent students to the Administrative Guide.

> There is a vast number of problems caused by students. The Administrative Guides are under a lot of pressure. They have classes to teach besides being Administrative Guides. On the other hand, the section teachers know their students best and Head of Sections know their teachers. Now, all problems are sent to the Head of Section, which has helped in improving students' discipline and reducing the load on the Administrative Guide office. (Electrical Section Head)

Another practice was introduced, which requests each section to assign a teacher to gate-watch. The motive behind it was teachers' were continuously distracted from intruding students from other sections. The gate-watcher teacher now stops and questions any student visiting a section that is not his.

The basis of training has changed. It is now based on staff needs. Headmaster, Deputy Headmaster, and Heads of Sections all work on identifying teachers strengths and weaknesses and recommend and facilitate the development of courses that meet those needs. Even for new teachers there are courses in addition to the induction, which was also a ritual in the pre-study.

Staff needs for training is not only facilitated for those who were flagged by the school management and Heads of Sections. The school also tries hard to enrol its staff in courses they believe are beneficial for them and for their work. The Learning Resource Centre tells how the Headmaster insisted on enrolling him for a training course the Technical Education Directorate prepared even though the course was only for teachers:

> There was a course in Computing and I wanted to attend the course. I wrote my name on the form provided by the Technical Directorate, but a reply came from the Directorate saying that this particular course is only for Teachers. I spoke to the Headmaster and explained to him why this course is important. So, he called the Technical Directorate and pushed that I should be enrolled in it. (The Learning Resource Specialist)

The human, compassionate side still exists in the school. Different stories were told about how the school understands staff problems and helps them in every possible way. For example, a teacher whose father had an operation had to stay with him for three days in the hospital. The school management registered this teacher absent with sick-leave.

50 Concern for staff [HM, AH, EH, MH, AT, MT, TG, SG] [Pre Post] [HM, DH, EH, AT, MT, TG, SG]

565 When I (Librarian) register for a course that is only for teachers N ... Hasan Ameen contact the Ministr and pushes me an fight on my behal [SG]

558 Teacher abse for 3 days who stayed with his father in the hospital [TG]

544 Porter had a operation [MT]

382 Discipline committee [AH, AT] [Pre Post] [HM, AT, TG]

460 Open door policy [HM, AT] [Pre Post] [HM, DH]

693 Induction with the Headmaster an HoSs come to rece us [MT] [Pre]

645 Roses were giv to teachers in the Teacher's day [AT] [Pre]

543 A Teacher's house was burnt [M

557 Teacher lookin after his mother [TG]

561 A student hit teacher story [T

542 Teacher passe away [MT]

338 If one of sta looses a relative w (the school) go as delegate [MH] [Pre

457 Teachers have to send students problems to their HoSs who then decide what to do with the students [DH, EH

53 Educational guidance and poster [AT] [Pre]

447 Sitting area an garden behind library [TG, SG] [Pre]

461 1) Verbal warning, 2) written questioning, 3) warning letter [DH]

459 Teachers to sit at the gate of the sections [DH]

456 Discipline in all the school [DH]

455 Discipline of students in sections is important [DH]

643 The school allows teachers to go out for personal reasons [EH, AT, MT [Pre]

715 The Headmaste talks to the misbehaving studen [AT] [Pre]

151 focus on new teachers (eg providing them training courses) [DH]

64 Courses to meet the staff's training needs [DH, AT]

344 Questionnaire for teachers about the school administration [DH, SG]

449 Measuring and managing the school's performance committee [SG]

77 Headmaster, Deputy Headmasters, & HoS visit teachers in classroom to know their strengths and weaknesses [DH]

54 Sections organised their workshops and th layout of their machinary [EH]

436 Modification in secretary's office [HM, DH, AT, MT, S

373 Garden [E

128 Decor' improve [EH]

526 Garden behin the managemen building [EH]

435 Admonish an guide a member staff if he makes mistake [HM]

Figure 40: Concern for Staff Theme and leading Manifestations

180

Eagerness for Development and Improvement

> Everyone is doing his job, but we all know that we work to develop the school. (An Academic Section Head)

Development is a sense that all the staff of the school share. Staff when asked about the purpose or meaning of different practices, and forms, their immediate response was "to improve the school".

Figure 41 shows the beliefs, practices, and forms that predicate to the Development and Improvement assumption.

According the Deputy Headmaster, eagerness for Development and Improvement could be observed from certain staffs' behaviour. For example, initiative of staff to join training courses, collaboration, staff self-development, participation in committees and willingness to join the management board, and competitiveness increased. He strongly believes the dynamics in staff behaviour could be traced back to a number of initiatives introduced during the year. Section and staff evaluation are major influencers. Structural changes of committees, in particular the Performance Measurement, Planning, and the committees deriving from the Technical Committee meant there is evaluation as well as follow-up. Furthermore, reasons for reward, and autonomy of sections could also have changed staff behaviour.

Five groups in the school believed the creation and operation of the Performance Measurement Committee aimed at continuous development and improvement. The committee originally was called "Performance Improvement Committee", which was then changed after conducting the post-study interviews to its current name to reflect its broader functionality. The Electrical Section Heads and Support Group remarked on the initiation and purpose of the committee:

> We had a meeting chaired by the Headmaster and the members of the Performance Committee. The committee explained to us the school's strategy, processes, how the different processes connect, our responsibilities, and the targets we have to achieve. (Electrical Section Heads)

> The Headmaster encouraged us to improve our performance. He praised the system and its clarity and objectivity. He told us "now we'll have robust data about how we perform". (Support Group)

As mentioned previously other committees were created in between the pre and post study. The Planning Committee functions as an auditor on sections. It mainly focuses on section development plans.

> Each section sets its own plans. The planning committee receives sections' plans and compares them with the schools overall development strategy. (An Academic Section Teacher)

The Students' Attainment Committee and Developing the Performance of Teachers' Committee act also as auditors, but only for plans for improving students' attainment and teachers' performance as their names entails.

Physical arrangement seemed to be a form highly indicative of development and improvement assumptions.

> The school's décor changed vastly. Everyday there is a change or addition. For example, if you go to the secretary's office you'll notice a change. We have a new academic building now, which we will move to it soon. The school management always aims to improve things. Another example is the supportive education hall. It was one of the development projects during last year and now we have it – teachers could use it to teach online or for simulations. (Academic Sections Teachers)

The attitude for development and improvement in physical arrangements is further carried on by the different sections. For example, Electrical Section Heads stated that educational posters increased in the school, chairs were provided, and gardens planted, the school management even agreed with a university department to build a greenhouse sometime this year (was built actually during the write up of this project). Not only in the school's main corridors, main halls, and common areas has change happened, but also in section layouts, furniture, and décor. In one of the Electrical Sections new worktops were installed. In a Mechanical Section a new classroom was built and old machinery discarded. Lighting was improved in all the classrooms. All this happened for a number of reasons as stated previously in the themes above, but here is what the Electrical Sections Heads assert:

> Improving the work environment is a main factor in continually improving performance. Not just for staff, but also for students.

Figure 41: Eagerness for Development and Improvement Theme and leading Manifestations

571 Initiative increased to join the management board [SG]

560 The entrance of the carpentry section changed [TG]

530 Checklist for evaluating students' during and every mid-term (all academic sections) [AT]

468 Competition increased between staff [DH]

470 Measuring and managing the school's performance committee [DH, AH, EH, AT, SG]

572 Headmaster speech about the performance and performance measurement committee [SG]

478 Teachers are evaluated by preparation, teaching, initiative, classroom management, collaboration [AH]

559 The school entrance changed 3 times [TG]

540 HoSs have folders for teachers accomplishments and failures [MT]

527 Planning committee [AT]

526 Garden behind the management building [EH, MT, TG]

465 Initiative increased - Staff want to join training courses [DH, SG]

515 Workshop in performance measurement [SG]

464 Staff Self-development increased [DH]

467 Collaboration and Cooperation increased [SG]

528 Every Section sets its own plan [AT]

466 Participation in committees increased [DH]

137 Development and improvement [DH, AH, EH, MH, AT, MT, TG, SG]

24 New projects, new teaching methods, programs to help the education process [DH, AT, MT]

529 Form for sections plans [AT]

205 Teachers earn extra credit from working in committees / produced a project [TG]

83 Decor' improved [EH, AT, MT]

9 Attendance, duties, and participation in activities are evaluation criteria (all) [DH, MT]

23 Extra work = Doing something exceptional, coming in the afternoon, participating in committees, organising an exhibition [EH, AT, MT]

53 Educational guidance and posters [EH]

451 The students' attainment committee [DH, AT]

450 Developing the performance of teachers committee and the classroom environment [DH, AT]

447 Sitting area and garden behind library [EH, MT, TG]

54 Sections organised their workshops and the layout of their machinary [EH, MT]

82 Management by objective (ie based on plans set by staff) [AT, SG]

77 Headmaster, Deputy Headmasters, & HoS visit teachers in classroom to know their strengths and weaknesses [MH]

453 Technical Committee split [AT]

349 Distinguished teacher [EH]

19 Incentives are given for extra work [EH, AT, MT]

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6.4.2. The Control School

<u>Concern for Students</u>

No doubt the Control School's top guiding assumption was and still is concern for students. During the period of this research a number of formal practices were introduced. Starting with structural modification, the school created two new committees: Talented Students Committee, and Disabled Students follow-up committee.

The Talented Students Committee was still at its early stages of operations and had just started to identify the talented students in the school and was discussing procedures to identify them. The Disabled Students follow-up committee is an active committee in particular during the exams periods. It was set by the Deputy Headmaster and its members are the Social Guide and Vocational Guide. Here is what a Techno-Element Group Specialist had to say about it :

> It aims to follow-up and assist those students with minor disabilities. For example, if a student with a poor vision is identified we could ask the teacher invigilating to read the question to the student. Another example, if a student has a broken arm we put him in a separate room with a teacher so he could dictate to the teacher to write on his behalf. A third example, we inform the invigilators if a students with diabetes is in the exam hall to allow the students to go to the toilet.

Procedural practices were also seen to enforce concern for students in the Control School. Stemming from the split of the Academic and Vocational Guidance a requirement was put in place to create a complete record for each student. One part of the record about his academic work would be held by the Academic Guide, and the other is about his attendance, misbehaviours, and sick-leaves records, by the Administrative Guide.

Procedures were clarified on different fronts. The duties of the Social Guide and the Administrative Guide were combined. According to a member of the Techno-Element group:

> Behavioural problems if they persist should be dealt with by the Social Guide who is specialised in psychology. In the past, Mr. X used to carry out different duties and teachers didn't distinguish between the different functions. They used to take any problem to him. He left and the jobs had to be clarified.

Moreover, duties of Heads of Sections were also clarified. Here is what an Academic Head of Section had to say:

> In the past we used to think we have to ensure that teachers give students homework and give them different activities to do. However, now we understand we have to follow-up students and sit with the students.

The school tries to ensure students know the school's system and procedures and this is why it has an induction day. The school management, social guide, administrative guide, academic guide, and registration participate in making the day successful and to help the students start their studies from the first day.

Staff training even though indirectly relating to students is seen by the Support Group to enforce Concern for Students. For example, in planning for courses the Learning Resource Centre prepares schedules for training for teachers in particular the new ones – training in either teaching methods or their specialised subjects.

Concern for Students was emphasised by the Deputy Headmaster through two informal practices. The first is that he talks to students to encourage them to raise their issues with their teachers, Heads of Section, and Social Guide. He stresses to them that if their issues are not dealt with they should approach him to assist. He stressed to the researcher that he deals with them as adults and admonishes them if they misbehave.

> I don't make the students stand when they are sent to me for misbehaving. Our culture dictates that we make students stand. Even some of my teachers question why I'm doing this. I talk to students and make them feel appreciated and so they open up to me and you see them come to my office for anything they have. (The Deputy Headmaster)

For revision for exams the school takes some money from the students to pay for the teachers who come in the afternoon or the night of the exam to teach. However, the school recognises that some of the students in the villages nearby come from poor families. The school management instructs Heads of Sections not to take money from those poor students.

The end of year ceremony was modified from the year before to reflect encouragement for students' good achievement. The school started to invite its distinguished students to the

end of year ceremony that was solely for its staff and was attended by the Director of Technical Education and Technical Education and Curricula Specialists.

Concern for Students was also reflected in the reason for the school to write its name on the students' uniform. Here is how an Academic Section Teacher narrated the incident:

> About 2 years ago, some vandalism happened in Sanabis Souq (market) by people wearing uniforms like our students wear. The people in the market accused our students, so the school management decided to prevent any future accusations by writing the schools' name on the students' uniforms.

Figure 42: Concern for Students Theme and leading Manifestations
(Post and Pre are split in the next two figures for clarity)

187

6 Concern for students [HM, DH, AH, EH, MH, AT, ET, MT, SG] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG]

33 Punishment is given for going to classes late, go out before end of day, or arrive late in morning [EH, SG] [Pre Post] [HM, AT, Mt, SG]

372 The school management doesn't take money from the poor students for the revision classes [AH]

374 Office for the Administrative guidance near the football pitch [AH]

381 The school management prepared a flowchart for dealing with the students' problems [TG]

312 Teacher can't control his classroom story [DH] [Pre Post] [DH, MT]

31 Written warnings [HM, MT, SG]

2 Staff discipline is important [DH] [Pre Post] [DH, AT]

299 if teachers are controlled will give good image to students [DH] [Pre Post] [HM, DH, AT]

424 Revision notes for the students near the exams [A]

423 The school name is written on the students' uniform [AT]

152 Portfolio with plans to assist/develop new teachers [SG]

68 Analysis of results and exam results [HM, DH, AH, EH, ET, MT, SG] [Pre Post] [HM, DH, AH, EH, MH, MT, SG]

280 Academic and vocational guidance split [DH, ET] [Pre Post] [AH, AT]

133 booklet with all requirements of the school to all sections [AH] [Pre]

386 Induction day [TG]

223 Talented Students committee [MT]

151 focus on new teachers (eg providing them training courses) [SG]

36 Sections prepare ceremonies by themselves [MH]

319 Teachers must give students different types and increased number of homework [MH]

25 Evidence required for all work [AT]

26 Management by walking around [DH] [Pre Post] [DH]

140 Standard for all sections [HM, AH] [Pre] [Post] [DH, AH]

193 Open day [SG]

225 Rules, duties, and rights are clear [TG]

76 The school managment meets the HoSs weekly [AH]

118 Section is evaluated by its control to the students and problems eg number of problems going to Admin Supervisory, or Academic Supervisory [DH]

23 Extra work = Doing something exceptional, coming in the afternoon, participating in committees, organising an exhibition [HM, ET, MT] [Pre Post] [HM, SG]

138 The school focus on educational attainment [HM, DH, AH, EH, ET, MT] [Pre Post] [HM, DH, MH, AT, MT, SG]

24 New projects, new teaching methods, programs to help the education process [HM, AH, EH, SG] [Pre Post] [HM, DH, AH, MH, AT, SG]

337 The school magazine[SG]

131 Remedial classes for weak students [SG] [Pre]

383 Disabled students follow-up committee [TG]

326 Deputy Headmaster calls students to admonish them and make them sit when they come [DH]

387 If a student makes a problem the school management consult the administrative supervisory and dismisses the student [TG]

233 Management by objective (ie based on plans set by staff) [EH] [Pre Post] [TG]

73 The focus/goal is the student [HM, DH, AH, EH, SG] [Pre Post] [HM, DH, EH, MT, SG]

389 Student died in a car accident [T G]

373 Garden [AH]

380 Administrative supervisory is evaluated by its ability to absorb all types of students and staff problems, contacting the students gardians[TG]

19 Incentives are given for extra work [HM, AH, EH, AT, ET, MT, SG] [Pre Post] [HM, DH, AH, MH, AT, SG]

102 Normal teacher [AT] [Pre Post] [MH]

51 Shades for students [HM, DH, AH, EH, SG] [Pre Post] [AH]

153 Changes in library [HM, AH] [Pre Post] [SG]

330 End of year ceremony - invites the distinguished students [DH, MH, ET, MT, TG]

329 A teacher hit student story [DH]

126 Follow-up and documentation committee office near the Headmaster office [HM] [Pre Post] [AT]

139 focus on Sheikh Khalifa prize perspective [HM, AH] [Pre Post] [AT]

157 Chairs for students [AH, EH] [Pre Post] [AT]

300 if students are controlled teachers can teach their lessons [DH] [Pre Post] [MH, AT]

224 Advertisement for students to join committees [MT]

327 Deputy Headmaster encourages the students if they have any issues to talk to their teachers, HoS, Guides, to the school managment [DH]

390 Complete records (files) for each student - split in two parts: one in the academic guidance and in the administrative supervisory [TG]

74 Remedial classes for weak students and enrichment classes for distinguished students [HM, DH, AH, EH, MT] [Pre Post] [HM, MH, MT, SG]

75 Revision classes on the night of exam [HM, DH, AH, SG] [Pre Post] [HM, AH, MH]

53 Educational guidance and poster [HM, MH, SG] [Pre Post] [DH, AT, MT, TG, SG]

128 Decor improve [HM, MH] [Pre Post] [HM, AH, SG]

318 Know the students opinion about their teachers and issues [DH] [Pre Post] [DH, MH, AT]

364 Technical Committee [DH,AH] Pre Post [AH]

189 Control your students [AT]

315 Focus on changing the student behaviour [DH] [Pre Post] [MH]

167 Controlling oneself in the classroom with the students is at the outmost importance [MH, AT]

320 Deputy Headmaster calls different students' gaurdians daily [DH] [Pre Post] [DH]

307 Management mark the teachers' preparation books [HM, DH] [Pre Post] [HM, DH, EH, MH, MT]

29 Sections organised their workshops and the layout of their machinary [MH] [Pre Post] [AT]

306 The management goes around in the school during the morning break to talk to students and make them like the school [DH] [Pre Post] [DH]

67 Training on how to prepare exams and tests [HM, SG] [Pre Post] [DH, SG]

164 The school asks us about the activities that the students participated in like peotery, art, etc [EH] [Pre Post] [HM]

72 The school management request HoS to submit a report with the students results and observed strengthes and weaknesses [HM, DH, MT] [Pre Post] [HM, DH, EH, M]

158 cleaner classrooms [HM, AH, EH, ET] [Pre Post] [HM, AH, AT, MT]

58 The school's management follows-up sections and provide feedback [EH, MT, SG] [Pre Post] [HM, MH,EH]

77 Headmaster, Deputy Headmasters, & HoS visit teachers in classroom to know their strengths and weaknesses [DH, AT] [Pre Post] [DH, AH, MH, AT, MT]

Concern for Students Theme and leading Manifestations (Post)

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58 The school's management follows-ups sections and provide feedback [EH, MT, SG] [Pre]

317 HoS filled / prepared the report/form by the next day [DH] [Pre]

133 booklet with all requirements of the school to all sections [AH] [Pre]

96 Headmaster doesn't go out of the school without informing the Tech Directorate by fax he is going out [MH] [Pre]

300 if students are controlled teachers can teach their lessons [DH] [Pre Post] [MH, AT]

65 Only one student is allowed to go to the toilet at one time [MH] [Pre]

66 Sections analyse their books and submit a report [EH, SG] [Pre]

126 Follow-up and documentation committee office near the Headmaster office [HM] [Pre Post] [AT]

140 Standard for all sections [HM, AH] [Pre]

109 The school management comes at 5 or 6am and stay till 8 or 9pm [DH, MH] [Pre]

322 Questionnaire for students about teachers [DH] [Pre]

4 Student discipline is important [DH] [Pre]

325 Goal of school is to strengthen the links with the labour market [HM] [Pre]

90 Teaching and learning committee [EH] [Pre]

316 HoS used to only think their job is to follow teachers [DH] [Pre]

139 focus on Sheikh Khalifa prize perspective [HM, AH] [Pre Post] [AT]

27 Management board [HM] [Pre]

71 The school compares and discusses the students' results of the different years [AH, EH, SG] [Pre]

173 We receive questioning about the student's results [EH] [Pre]

108 Leading by example in discipline [DH, MH] [Pre]

28 Management board evaluates for incentives [DH] [Pre]

38 Teachers who has first lesson in morning are obliged to attend morning march [MH, SG] [Pre]

171 Emphasis on educational work (70-80%) when evaluating sections [EH] [Pre]

63 Training committee [HM, SG] [Pre]

150 We are given lessons from practical days [AH, EH] [Pre]

324 Send a written notification and SMS to students' gardians [DH] [Pre]

281 52 Academic guide for 39 groups ie 1 guide for 15 students [ET] [Pre]

61 All work documented [EH] [Pre]

2 Staff discipline is important [DH] [Pre Post] [DH, AT]

121 Students resent learning [AH, EH, AT] [Pre]

100 Extra work = Doing something exceptional, coming in the afternoon, participating in committees [AH, EH, AT, SG] [Pre]

298 Heads of invigilation committees stay near the exams-halls to solve any arising issues [AH] [Pre]

23 Extra work = Doing something exceptional, coming in the afternoon, participating in committees, organising an exhibition [HM, ET, MT] [Pre Post] [HM, SG]

68 Analysis of results and exam results [HM, DH, AH, EH, ET, MT, SG] [Pre Post] [HM, DH, AH, EH, MH, MT, SG]

172 Administration work is about 30% [EH] [Pre]

60 Sheikh Khalifa prize is just a motivator to do all improvements, if we don't win we benefit from this for our students [SG] [Pre]

153 Changes in library [HM, AH] [Pre Post] [SG]

299 if teachers are controlled will give good image to students [DH] [Pre Post] [HM, DH, AT]

62 Training courses [MH, SG] [Pre]

149 We keep trying "Doing Orientation" [AH, EH, AT] [Pre]

19 Incentives are given for extra work [HM, AH, EH, AT, ET, MT, SG] [Pre Post] [HM, DH, AH, MH, AT, SG]

102 Normal teachers [AT] [Pre Post] [MH]

1 All efforts for students [SG] [Pre]

280 Academic and vocational guidance split [DH, ET] [Pre Post] [AH, AT]

138 The school focus on educational attainment [HM, DH, AH, EH, ET, MT] [Pre Post] [HM, DH, MH, AT, MT, SG]

32 Feedback or written admonishment [HM] [Pre]

26 Management by walking around [DH] [Pre Post] [DH, MT]

52 gives a good image to the school's visitors [SG] [Pre]

53 Educational guidance and posters [HM, MH, SG] [Pre Post] [DH, AT, MT, TG, SG]

6 Concern for students [HM, DH, AH, EH, MH, AT, ET, MT, SG] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG]

24 New projects, new teaching methods, programs to help the education process [HM, AH, EH, SG] [Pre Post] [HM, DH, AH, MH, AT, SG]

233 Management by objective (ie based on plans set by staff) [EH] [Pre Post] [TG]

73 The focus/goal is the student [HM, DH, AH, EH, SG] [Pre Post] [HM, DH, EH, MT, SG]

275 Frequent and infrequent documents ... The frequent focus on quality, and the infrequent don't [MT] [Pre]

131 Remedial classes for weak students [SG] [Pre]

92 The school management pay tributes regularly to students who achived good results and who won competitions [DH, MH] [Pre]

315 Focus on changing the student behaviour [DH] [Pre Post] [MH]

158 cleaner classrooms [HM, AH, EH, ET] [Pre Post] [HM, AH, AT, MT]

364 Technical Committee [AH]

162 Quraan in read in morning march [AH] [Pre]

156 Work is split between teachers in our sections based on their requests [DH] [Pre]

74 Remedial classes for weak students and enrichment classes for distinguished students [HM, DH, AH, EH, MT] [Pre Post] [HM, MH, MT, SG]

51 Shades for students [HM, DH, AH, EH, SG] [Pre Post] [AH]

75 Revision classes on the night of exam [HM, DH, AH, SG] [Pre Post] [HM, AH, MH]

128 Decor' improved [HM, MH] [Pre Post] [HM, AH, SG]

157 Chairs for students [AH, EH] [Pre Post] [AT]

312 Teacher can't control his classroom story [DH] [Pre Post] [DH, MT]

318 Know the students opinion about their teachers and issues [DH] [Pre Post] [DH, MH, AT]

64 HoSs must stand in front of the section when students walk to their sections to ensure all students go in [MH] [Pre]

284 We are requested to report the things that we do to support the educational process [MT] [Pre]

320 Deputy Headmaster calls different students' gaurdians daily [DH] [Pre Post] [DH]

29 Sections organised their workshops and the layout of their machinary [MH] [Pre Post] [AT]

306 The management goes around in the school during the morning break to talk to students and make them like the school [DH] [Pre Post] [DH]

67 Training on how to prepare exams and tests [HM, SG] [Pre Post] [DH, SG]

72 The school management request HoS to submit a report with the students results and observed strengthes and weaknesses [HM, DH, MT] [Pre Post] [HM, DH, EH, M]

77 Headmaster, Deputy Headmasters, & HoS visit teachers in classroom to know their strengths and weaknesses [DH, AT] [Pre Post] [DH, AH, MH, AT, MT]

293 Invite presenters from outside the school [ET] [Pre]

307 Management mark the teachers' preparation books [HM, DH] [Pre Post] [HM, DH, EH, MH, MT]

164 The school asks us about the activities that the students participated in like poetery, art, etc [EH] [Pre Post] [HM]

Concern for Students Theme and leading Manifestations (Pre)

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Fairness

The Fairness assumption is the second major guiding assumption in the Control School in both the pre and post studies. The strength of this assumption in the post-study is due to the emergence of a number of manifestations. Some of these manifestations are common to the Case School in post and some are common to the Case School in both the pre and post (see Figure 43).

Common to the post study in the Case School is "Heads of Sections visit their teachers in the classroom 'to ensure evaluation from multiple perspectives.' The Head of Section would also sit with the students without the teacher present to get their opinion of the teacher.

> Staff is evaluated using the end of year form. The school management evaluates the attendance, discipline, participation in the school's activities, and how we deal with students' misbehaviour problems. The Heads of Sections are concerned with preparation for teaching and the act of teaching itself. They visit their teachers three times every semester. (Academic Sections Teachers)

Common to the Case School Pre and Post are two practices. The first deals with committee membership and the second with discipline. Now the school distributes a list of all committees needed in the school and staff who wish to join any of them have to put their names down. A count is then conducted just as is done in the Case School.

Regarding discipline the school in the past only used to issue warning letters for the undisciplined teachers. However, now the school tries to be fairer through questioning the staff about their slackness. If the reasons seem to be out of the staff's hands, the member of staff will not be given a warning letter.

Different from the Case School is a number of formal practices and stories that reflect fairness in dealing with issues either relating to staff or students. For example, an argument arose between two teachers, one from a Mechanical Section and another from an Academic Section. Here is what a Deputy Headmaster had to say about it and how the school dealt with the problem:

> An Academic Teacher said to a teacher from a Mechanical Section you are just a mechanic (in Arabic cultures this is considered a menial job), so the Mechanical Teacher got upset and argued with the

other teacher. We heard the story and I asked each teacher to write me a report of what happened. I formed a committee from different functional groups and from different nationalities to ensure non bias. I read the reports, prepared questions about them and then we conducted the meeting. We discussed for two hours with the other members of the committee taking part. Both teachers were treated equally and the guilty teacher recognised his mistake.

Two other cases the school management set committees for: the first was when a teacher hit one of the students in front of his classmates, and the second, when a student was caught cheating. For the first, the school management took action against the teacher and the teacher apologised to the student. For the second, the head of the invigilation committee took the case to the Headmaster, invited the invigilating teacher, and a teacher from the subject that the student was caught cheating in. Evidence of cheating was found in the student's paper and the paper was rejected.

The remaining manifestations that emerged during the post study predicating fairness relate to rewards. The school gives gratitude certificates to all staff who worked hard during the year and gives those who worked in committees a better evaluation average than those who did not. Furthermore, it recommended a teacher be rewarded as a distinguished teacher for the whole Kingdom of Bahrain by the Prime Minister.

Figure 43: Fairness Theme and leading Manifestations
(Post and Pre are split in the next two figures for clarity)

Fairness Theme and leading Manifestations (Post)

341 Deputy Headmasters nominate HoSs and administrative staff [HM, AT, TG]

37 List of committee names distributed and teachers select the committees they want to join [AH, EH, MH, AT, ET, MT, TG, SG]

420 Staff who work in committees received good evaluation [AT]

108 Argument between two teachers - Practical and Academic [DH, MH, MT]

28 Written criteria for deciding who deserve incentives (used by management board) [HM, DH, AT, SG] [Pre Post] [DH, EH, SG]

83 The minutes of the management board meeting are distributed to all the school's sections [AT]

34 Gratitude certificates [DH]

349 Distinguished teacher [EH, MH]

318 Know the students opinion about their teachers and issues [AT]

77 HoS visit their teachers 3 times a year [AT]

355 Distinguished teacher from Math section was pushed forward by the school management [AH]

31 Written warnings [AT, MT] [Pre Post] [HM, DH, MH, MT, TG, SG]

81 Management board is elected [EH, SG] [Pre Post] [DH, MH, AT, ET, SG]

175 The school announce the names of the people who received incentives [EH] [Pre Post] [DH]

107 Committee to discuss conflicts or problems [MH, DH]

329 A teacher hit student story [DH]

400 Committee to discuss the problem of cheating student [MT]

22 Fairness [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG]

13 Punishment is given for going to classes late, go out before end of day, or arrive late in morning [EH, MH, AT, ET, MT, TG] [Pre Post] [AH,EH,MH, AT, ET,TG]

312 Teacher can't control his classroom story [MT]

404 Feedback or written admonishment [TG, SG] [Pre Post] [DH, TG]

8 Work duties (job discriptions) were distributed to staff (all) [EH, AT, TG, SG] [Pre Post] [EH]

30 Any teacher can nominate himself for incentive [HM, DH, AH, TG, SG] [Pre Post] [HM, EH, MH, AT, SG]

217 punishment given for arriving late or leaving early before end of day and to anyone [AT] [Pre Post] [EH, MH, AT, ET, MT, TG]

93 The school management distributed a list of criteria for incentives [HM, DH, AH, EH, MH, AT, ET] [Pre Post] [DH, SG]

207 More than one source for evalaution [ET] [Pre] [Post] [AT]

25 Evidence required for all work [DH, AH, EH, AT, TG, SG] [Pre Post] [HM, DH, AH, AT]

141 HoSs evaluates their teachers [HM, AH, EH, MH, AT, ET, MT] [Pre Post] [HM, DH, MH, AT]

109 Attendence, duties, and participation in activities are evaluation criteria (all) [AT] [Pre Post] [AT]

174 Incentives for working in committees and coming in the afternoon [ET] [Pre Post] [AT]

23 Extra work = Doing something exceptional, coming in the afternoon, participating in committees, organising an exhibition [HM, ET] [Pre Post] [HM]

102 Normal teacher [AT] [Pre Post] [MH]

117 Evaluation by results doesn't reflect real performance [DH, AH, MH] [Pre Post] [MT]

68 Analysis of results and exam results [DH, AH, EH] [Pre Post] [MT]

24 New projects, new teaching methods programs to help the education process [HM] [Pre Post] [AH]

26 Management board evaluates for incentives [HM, DH, AH, EH, MH, ET, TG, SG] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, TG, SG]

19 Incentives are given for extra work [HM, AT, ET] [Pre Post] [HM, AH, SG]

29 Self-evaluation forms for staff [HM, DH, AH, EH, ET, SG] [Pre Post] [HM, DH, AH, SG]

21 HoSs nominate their teachers for incentives [HM, DH, AH, EH, MH, AT, ET, TG, SG] [Pre Post] [HM, DH, AT, SG]

116 Students' results are not considered prime as an evaluation criteria [MH] [Pre Post] [MT]

Fairness Theme and leading Manifestations (Post)

- 13 Punishment is given for going to classes late, go out before end of day, or arrive late in morning [EH, MH, AT, ET, MT, TG] [Pre Post] [AH,EH,MH, AT, ET,TG]
- 93 The school management distributed a list of criteria for incentives [HM, DH, AH, EH, MH, AT, ET] [Pre Post] [DH, SG]
- 196 Teacher leaves his car outside and runs away [MT] [Pre]
- 404 Feedback or written admonishment [TG, SG] [Pre Post] [DH, TG]
- 217 punishment given for arriving late or leaving early before end of day and to anyone [AT] [Pre Post] [EH, MH, AT, ET, MT, TG]
- 112 Written questionning if staff doesn't return back in same day if he went out with permission [MT] [Pre]
- 28 Written criteria for deciding who deserve incentives (used by management board) [HM, DH, AT, SG] [Pre Post] [DH, EH, SG]
- 31 Written warnings [AT, MT] [Pre Post] [HM, DH, MH, MT, TG, SG]
- 222 No differentiation [AT] [Pre]
- 235 Management walking around "to know who produces" [SG] [Pre]
- 313 Some sections are run by only few teachers and the rest are sleeping [DH] [Pre]
- 175 The school announce the names of the people who received incentives [EH] [Pre Post] [DH]
- 81 Management board is elected [EH, SG] [Pre Post] [DH, MH, AT, ET, SG]
- 22 Fairness [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG]
- 314 Initiatives are rewarded [DH] [Pre]
- 321 Teacher was nominated by his HoS, but we nominated him [DH] [Pre]
- 8 Work duties (job discriptions) were distributed to staff (all) [EH, AT, TG, SG] [Pre Post] [EH]
- 206 Teacher earned credit [AT] [Pre]
- 30 Any teacher can nominate himself for incentive [HM, DH, AH, TG, SG] [Pre Post] [HM, EH, MH, AT, SG]
- 174 Incentives for working in committees and coming in the afternoon [ET] [Pre Post] [AT]
- 207 More than one source for evaluation [ET] [Pre] [Post] [AT]
- 176 Teachers earn extra credit from working in committees / produced a project [AT, ET] [Pre]
- 109 Attendence, duties, and participation in activities are evaluation criteria (all) [AT] [Pre Post] [AT]
- 23 Extra work = Doing something exceptional, coming in the afternoon, participating in committees, organising an exhibition [HM, ET] [Pre Post] [HM]
- 25 Evidence required for all work [DH, AH, EH, AT, TG, SG] [Pre Post] [HM, DH, AH, AT]
- 141 HoSs evaluates their teachers [HM, AH, EH, MH, AT, ET, MT] [Pre Post] [HM, DH, MH, AT]
- 102 Normal teacher [AT] [Pre Post] [MH]
- 24 New projects, new teaching methods programs to help the education process [HM] [Pre Post] [AH]
- 117 Evaluation by results doesn't reflect real performance [DH, AH, MH] [Pre Post] [MT]
- 68 Analysis of results and exam results [DH, AH, EH] [Pre Post] [MT]
- 221 30-32 committees in the school and 150 teachers [TG] [Pre]
- 26 Management board evaluates for incentives [HM, DH, AH, EH, MH, ET, TG, SG] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, TG, SG]
- 116 Students' results are not considered prime as an evaluation criteria [MH] [Pre Post] [MT]
- 29 Self-evaluation forms for staff [HM, DH, AH, EH, ET, SG] [Pre Post] [HM, DH, AH, SG]
- 21 HoSs nominate their teachers for incentives [HM, DH, AH, EH, MH, AT, ET, TG, SG] [Pre Post] [HM, DH, AT, SG]
- 280 Academic and vocational guidance split [DH] [Pre]
- 19 Incentives are given for extra work [HM, AT, ET] [Pre Post] [HM, AH, SG]

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Autonomy

When comparing Autonomy in the Control School with the Case School in both Pre and Post one can notice that there are a number of forms, beliefs, and practices shared and interpreted similarly. For example, in both Pre and Post four functional groups (HM, MH, ET, SG) believe HoSs are managers in their sections. Moreover, the teachers' evaluation and nomination for incentives by their Heads of Section are also seen to reinforce Autonomy. However, different from the Case School, sections prepare ceremonies by themselves for graduating students or to celebrate the end of year.

In pre, the split of Academic and Vocational Guidance represents a hallmark for Autonomy as believed by the Deputy Headmaster. He together with the Academic Heads emphasise that work is also split and given to staff in sections based on their requests.

In post, and different from the Case School, Autonomy prevails in the freedom given to staff in taking up jobs such as membership of committees or leading committees. Autonomy was also recognised in doing the main tasks by the Techno-Element Group. The school management applies the recommendations of the Administrative Supervisors as dealing with misbehaving students as constituting their prime role. Moreover, autonomy according to the Electrical Sections Heads is reinforced when the school management asked (not ordered) an Electrical Section Head if he can send one of his teachers to fix the intranet network.

Figure 44: Autonomy Theme and leading Manifestations

76 The school managment meets the HoSs weekly [DH, AH, MH, MT] [Pre Post] [HM, DH, AH, EH, SG]

13 HoSs is the communication link between the school management and their teachers [HM, DH, AH, MH, AT, MT, SG] [Pre Post] [HM, DH, AH, SG]

55 Every HoS is a manager in his section [HM, AT, SG] [Pre Post] [HM, MH, ET, SG]

78 Management by objective (ie based on plans set by staff) [HM, DH, AH, EH, MT, SG] [Pre Post] [HM, EH, MH, TG]

36 Sections prepare ceremonies by themselves [DH, EH, MH, SG] [Pre Post] [MH]

21 HoSs nominate their teachers for incentives [MH] [Pre Post] [AT]

117 Evaluation by results doesn't reflect real performance [DH, AH] [Pre]

141 HoSs evaluates their teachers [HM, EH, MH, AT, MT] [Pre Post] [HM, DH, AH, MH, AT, ET, MT]

363 members of committees assign a leader from within [AH]

335 Management board members are not obliged to become committee heads [SG]

37 Autonomy [HM, DH, AH, EH, MH, AT, MT, SG] [Pre Post] [HM, DH, AH, EH, MH, AT, ET, MT, TG, SG]

68 Analysis of results and exam results [HM, DH, AH, EH] [Pre]

280 Academic and vocational guidance split [DH] [Pre]

71 The school compares and discusses the students' results of the different years [AH] [Pre]

340 We encourage sections to prepare ceremonies and even invite us to them [HM]

64 HoS organised their sections [SG] [Pre]

62 Sections organised their workshops and the layout of their machinary [SG] [Pre]

387 If a student makes a problem the school management consult the administrative supervisory and dismisses the student [TG]

5 Rules, duties, and rights are clear [AH, TG]

65 Every section prepares courses for its teachers [HM, AH, MH]

154 Every teacher has his own work, but has to up-date us [AH] [Pre]

359 Was asked to send a teacher to fix the network [EH]

304 Headmaster, Deputy Headmasters are strategy makers, and planners, whereas HoS are executers [DH] [Pre]

156 Work is split between teachers in our sections based on their requests [DH, AH] [Pre]

391 Head of committees choose the members for their committees [AT, MT]

18 People with experience are chosen to be on this team/committee [AH, AT, MT]

58 The school's management follows-up sections and provide feedback [TG]

72 The school management request HoS to submit a report with the students results and observed strengthes and weaknesses [AH, EH, MH, ET]

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Accountability

Accountability was recognized in the Control School prior to introducing the BSC in the Case School. Mostly, practices predicated accountability in the prior assessment. In the post assessment two practices were stated and attributed to accountability. The first is concerned with attendance and discipline of staff. The school management emphasized that each member of staff is given a monthly report about his discipline. The purpose is to demonstrate that there is a record of the number of times a member of staff came late, went out early and the number of times he took permission to go out. The report even states the total length of time the member of staff was not present in the school.

The second newly introduced practice is a structural change. The school introduced an audit committee. This is what the Mechanical Heads had to say about it:

> This year a new committee emerged from the documentation committee called "Committees follow-up committee". The aim of this committee is to evaluate the schools' committees. It is headed by the Deputy Headmaster. Committees now feel there is some sort of follow-up." Mechanical Section Head

Commonalities also exist between the schools. For example, staff in both pre and post are required to sign for receiving documents and decrees, and are managed by objectives. Two other practices were also found to be common between the Control and Case Schools. However, in the Control School the practices are observed in both pre and post whereas in the Case School only in the post study. These practices are: questioning students' results if they were weak, and analyses of results and exam results.

Transparency

Transparency in the Control School is the sixth salient guiding assumption. It became more salient by almost 50%, whereas it doubled in the Case School, but ranks seventh. Three manifestations out of seven were found to be common to the Case School: one with pre (everything gets distributed), one with post (3 to 4 circulars arrive daily), and one with pre and post (list of committees names distributed and teachers select the committees they want to join).

The other four manifestations deal with top down communication, bottom up communication, procedural transparency for staff, and the last transparency with students about committees membership for students.

164 The school asks us about the activities that the students participated in like peotery, art, etc [EH] [Pre Post] [HM]

4 Computer to sign in and when taking permission [HM] [Pre Post] [HM, DH]

77 Headmaster, Deputy Headmasters, & HoS visit teachers in classroom to know their strengths and weaknesses [HM, DH] [Pre Post] [DH]

58 The school's management follows-up sections and provide feedback [EH] [Pre Post] [DH, MH]

31 Written warnings [HM, DH] [Pre Post] [HM, DH]

78 Management by objective (ie based on plans set by staff) [HM] [Pre Post] [HM, MH]

12 Staff are required to sign for receiving documents [MH] [Pre Post] [MT]

173 Questioning about the student's results [HM, DH] [Pre Post] [DH]

119 Accountability [HM, DH, EH, MH] [Pre Post] [HM, DH, MH, MT]

68 Analysis of results and exam results [HM] [Pre Post] [HM, DH, MH]

156 Work is split between teachers in our sections based on their requests [DH] [Pre]

76 The school managment meets the HoSs weekly [MH] [Pre]

72 The school management request HoS to submit a report with the students results and observed strengthes and weaknesses [MH] [Pre]

112 Written questionning if staff doesn't return back in same day if he went out with permission [HM, DH] [Pre]

342 Report sent monthly to each member of staff about their attendance [HM]

348 Committees follow-up committee [MH]

Figure 45: Accountability Theme and leading Manifestations
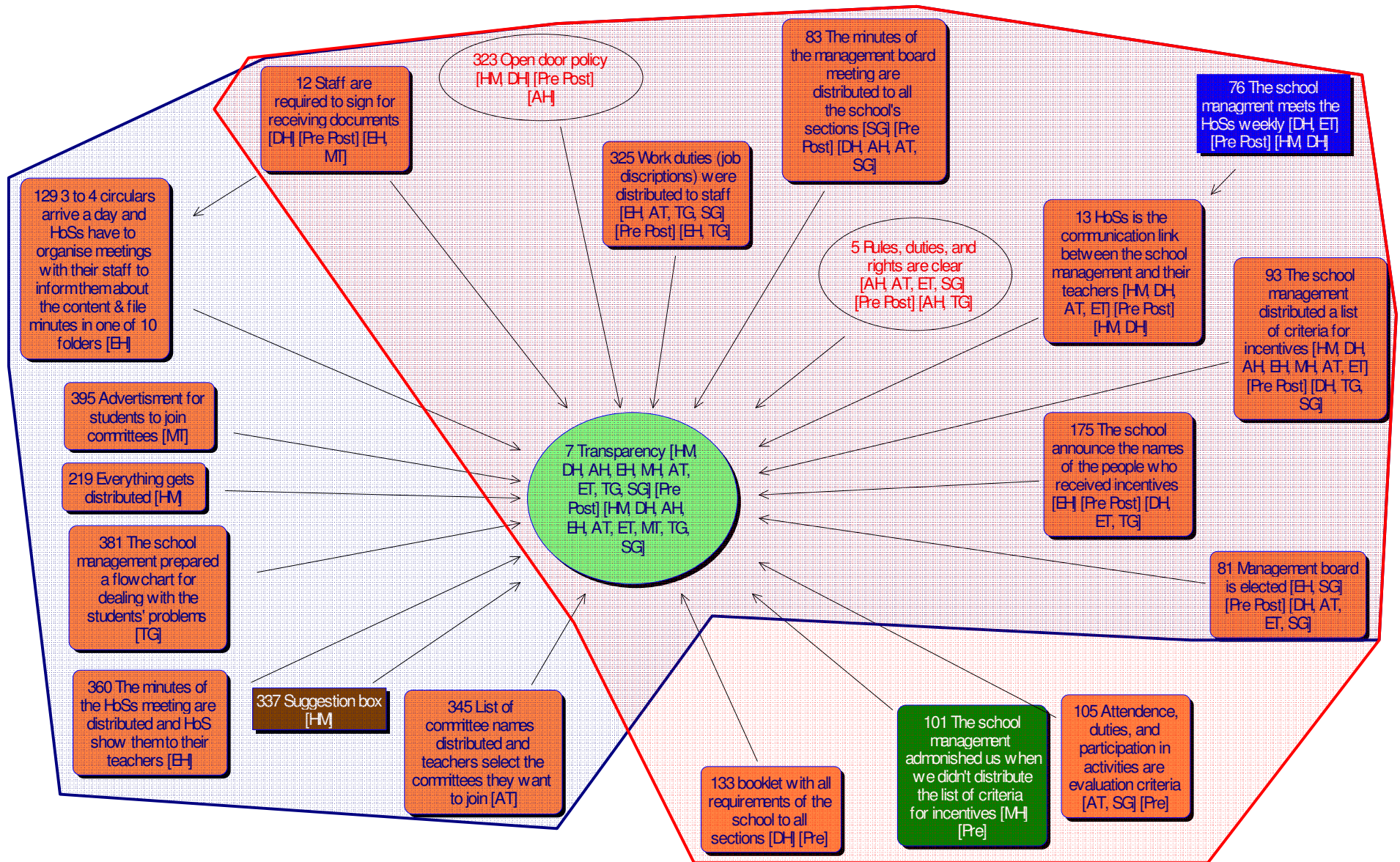
Figure 46: Transparency Theme and leading Manifestations

323 Open door policy [HM, DH] [Pre Post] [AH]

83 The minutes of the managment board meeting are distributed to all the school's sections [SG] [Pre Post] [DH, AH, AT, SG]

76 The school managment meets the HoSs weekly [DH, ET] [Pre Post] [HM, DH]

12 Staff are required to sign for receiving documents [DH] [Pre Post] [EH, MT]

325 Work duties (job discriptions) were distributed to staff [EH, AT, TG, SG] [Pre Post] [EH, TG]

129 3 to 4 circulars arrive a day and HoSs have to organise meetings with their staff to inform them about the content & file minutes in one of 10 folders [EH]

5 Rules, duties, and rights are clear [AH, AT, ET, SG] [Pre Post] [AH, TG]

13 HoSs is the communication link between the school management and their teachers [HM, DH, AT, ET] [Pre Post] [HM, DH]

93 The school management distributed a list of criteria for incentives [HM, DH, AH, EH, MH, AT, ET] [Pre Post] [DH, TG, SG]

395 Advertisment for students to join committees [MT]

219 Everything gets distributed [HM]

7 Transparency [HM, DH, AH, EH, MH, AT, ET, TG, SG] [Pre Post] [HM, DH, AH, EH, AT, ET, MT, TG, SG]

175 The school announce the names of the people who received incentives [EH] [Pre Post] [DH, ET, TG]

381 The school management prepared a flow chart for dealing with the students' problems [TG]

81 Management board is elected [EH, SG] [Pre Post] [DH, AT, ET, SG]

360 The minutes of the HoSs meeting are distributed and HoS show them to their teachers [EH]

337 Suggestion box [HM]

345 List of committee names distributed and teachers select the committees they want to join [AT]

133 booklet with all requirements of the school to all sections [DH] [Pre]

101 The school management admonished us when we didn't distribute the list of criteria for incentives [MH] [Pre]

105 Attendence, duties, and participation in activities are evaluation criteria [AT, SG] [Pre]

200

Concern for Staff

This theme almost doubled in terms of salience in the Case School. In the Control School it also improved. Cultural manifestations in post assessment comprise primarily organisational stories. The stories stated could be classified into two types: stories about supporting and providing teachers with assistance in difficult times, and stories supporting staff against abusive students.

An example of the first type of story ; the school demonstrated concern for staff when an Egyptian teacher who had just returned from his summer vacation and after 10 days of the commencement of the academic year was allowed to travel back to Egypt when he was informed that his son was diagnosed with cancer. Moreover, the school upon the return of the teacher visited him and asked him about his son's health and wished the son a speedy recovery.

An example of the second type of story; a student who was abusive in the English section was dismissed.

Formal practices were also designed particularly to cater for staff training needs like sending circulars to announce condolences and creating a committee to discuss the case of a cheating student.

When comparing both schools in terms of concern for staff the difference observed in the Case School in post-study is taking on board how staff are managed through surveys measuring their satisfaction with the school's administration.

Figure 47: Concern for Staff Theme and leading Manifestations

64 Courses to meet the staff's training needs [HM, AH, SG] [Pre Post] [DH, SG]

65 Every section prepares courses for its teachers [HM, EH, SG] [Pre Post] [SG]

152 Portfolio with plans to assist/develop new teachers [AH] [Pre Post] [SG]

71 The school compares and discusses the students' results of the different years [AH] [Pre]

69 Survey to identify the training needs of staff [HM, SG] [Pre Post] [DH, SG]

402 Student discipline is important [HM, DH, EH] [Pre Post] [DH]

170 Provide teachers with the student's adherence regulations [EH] [Pre]

62 Training courses [HM, AH] [Pre Post] [DH, SG]

151 focus on new teachers (eg providing them training courses) [HM, AH, EH] [Pre Post] [DH, MH, SG]

153 Follow-up on procedures to develop new teachers [AH] [Pre]

362 A teacher was allowed to travel back to Egypt after 10 days of the start of semester [EH]

323 Open door policy [HM, DH] [Pre Post] [AH]

32 Feedback or written admonishment [HM, EH, SG] [Pre Post] [HM]

171 align teachers ie make them get used to the system [EH] [Pre]

305 The management doesn't point the finger at one individual, but instead they speak to all [DH] [Pre]

370 Headmaster keeps few incentives for the beginning of the year [AH]

401 Verbal admonishment [MT]

322 Saving group [DH] [Pre]

277 Asked for permission many times when my wife wasn't well [MT] [Pre]

350 Committee to discuss conflicts or problems [MH]

50 Concern for staff [MH, DH, AH, EH, MH, MT, SG] [Pre Post] [HM, DH, AH, EH, MH, MT, SG]

135 Management deals with us with understanding [MT] [Pre]

279 My son wasn't well, school gave me a holiday and visited me in the section when I came back to ask about my son [MT] [Pre]

351 Argument between two teachers - Practical and Academic [DH, MH, MT]

343 Teacher has problem with his kids [HM]

95 The minutes of the management board are not distributed to all the school [MH] [Pre]

338 If one of staff looses a relative we go as a delegate [HM]

332 A teacher used to go out of the school everyday [DH]

162 Management shows/presents your accomplishments [AH] [Pre]

168 Controlling oneself in the classroom with the students is at the outmost importance [EH] [Pre]

336 Newspapers for teachers daily in library [SG]

337 Suggestion box [HM]

169 A teacher is not given a warning if he makes a mistake for the first time [EH] [Pre]

361 Student caused a problem in the English section and was dismissed [EH]

11 ill and the school management is understanding and helping me (Secretary) [SG] [Pre]

312 Teacher can't control his classroom story [DH]

339 Circular to announce condulances or weddings [HM]

53 Educational guidance and posters [MT]

47 If one teacher makes a mistake all staff receive circulars regarding the misconduct or the speech is to all [MH, SG] [Pre]

136 Headmaster in more than HoS meeting hinted about these HoSs who don't attend their classes [MH] [Pre]

245 Form/proposal template for improving the school performance [HM]

63 Training committee [DH, SG]

325 Prohibited a student from exam story [DH]

27 Management board [EH, MH]

400 Committee to discuss the problem of cheating student [MT]

244 Anyone can submit a proposal to the school management or secretary of the management board [HM]

202

6.5. Conclusion of Interview Findings

This chapter presented the findings from a total of forty (40) interviews. It presented the guiding assumptions that emerged, changed, their degree of change, and their degree of change for the different occupational groups. It went further to investigate the practices and forms that were stated by the different occupational groups and were inferred to mean the guiding assumptions presented earlier.

The chapter showed that the culture of the Case School changed; a new theme emerged "Eagerness for Development and Improvement" and others, although they had existed prior to introducing the performance measurement system, strengthened such as Transparency, Accountability, Autonomy, Support, and Fairness, and Concern for Students. Table 23 and Table 24 provide summaries of the changes in the Case School and Control School respectively. The strengthening of the guiding assumptions as well as being shared by most occupational groups is an indication that the culture has become more integrated. However, this conclusion is based on twenty (20) interviews and a total of thirty five (35) members of staff out of 250 staff in the Case School of which more than half the interviewees have been interviewed in both prior and post. Therefore, the next chapter investigates the beliefs and values of the school populations based on the Schein (2004) culture dimensions.

Theme	Changed by or Emerged	Shared-ness	Manifestation changed or emerged refer to figure
Concern for Students	7.4	All	*Figure 53* or *Figure 35*
Fairness	3.0	All except ET	*Figure 55* or *Figure 36*
Accountability	2.8	All except TG	*Figure 57* or *Figure 37*
Autonomy	4.3	All except TG	*Figure 59* or *Figure 38*
Transparency	2.8	All	*Figure 61* or *Figure 39*
Concern for Staff	1.9	All except MH, ET & AH	*Figure 63* or *Figure 40*
Eagerness for Development and Improvement	Emerged	All except HM & ET	*Figure 65* or *Figure 41*

Table 23: Summary of the Changes in the Case School

Theme	Changed by or Emerged	Shared-ness	Manifestation changed or emerged refer to figure
Concern for Students	3.8	All	*Figure 54* or *Figure 42*
Fairness	4.1	All	*Figure 56* or *Figure 43*
Accountability	-1.0	HM, DH, MH & MT	*Figure 58* or *Figure 45*
Autonomy	1.3	All	*Figure 60* or *Figure 44*
Transparency	0.9	All except MH	*Figure 62* or *Figure 46*
Concern for Staff	2.0	All except AT & ET	*Figure 64* or *Figure 47*

Table 24: Summary of the Changes in the Control School

7. Findings Chapter – Questionnaire Findings

7.1. Introduction

This chapter presents the main findings from the culture questionnaire. As explained in section 4.9 of the methodology chapter, the data analysis seeks to:

1. Identify the key themes that emerged or changed,
2. Identify the salience of the themes,
3. Identify the degree of shared-ness of the themes in the Case School in the post assessment in comparison to the pre-assessment,
4. Compare 1, 2 and 3 with the findings from the Control School.
5. Compare manifestations including beliefs and values pre and post, across the schools, and across the different functional groups and in relation to the Control School.

Moreover, as emphasised in section 3.4 in the culture chapter, the difficulties inherent in the quasi-experiment approach to detect changes in the culture necessitated the use of a broad framework. Schein (2004) dimensions were translated into variables to measure the beliefs and values of the staff of both schools prior and post the implementation of the performance measurement system. The cultural themes of the schools were identified qualitatively using the semi-structured interviews as was presented in the previous chapter. This chapter will present all values and beliefs based on Schein's dimensions and obtained through the use of questionnaires. Some of these values are constituent of the themes presented in the previous chapter, and their triangulation will be presented in the discussion chapter. Therefore, here the researcher presents all the values and beliefs and compares them according to objective 5 listed above and the techniques described in section 4.8.2.2.

The questionnaire used was administered in two schools: the Case School and the Control School prior and post the introduction of the Performance Measurement System. This chapter presents firstly the response rates from both schools. Secondly, the schools' cultures are described based on a descriptive analysis that used the mode and range of the different variables. Thirdly, the findings of the descriptive analysis are compared across both schools as whole using the Mann-Whitney test to confirm whether the changes are statistically significant or not. Fourthly, the chapter presents a

comparison of the beliefs across the different types of sections (Academic, Mechanical, and Electrical) within the schools using the Kruskal-Wallis and Mann-Whitney tests to test whether the section types would affect the respondents' beliefs. Fifthly, the beliefs of the different groups (within the different section types) constructed based on the different independent variables such as nationality, membership of committees, years worked in the school, etc (listed in section 4.8.2.1) will be compared using the Mann-Whitney tests. Finally, a descriptive comparison of the beliefs of the different occupational levels will be conducted. The purpose of this comparison is to identify whether or not the beliefs of the different groups (Strategic Apex, Techno-element, Middle Management, Support, and operating core) specified by Mintzberg (1979) have merged. At the end of this section a table is presented to synthesise the findings from this section and the previous sections, which will show that the beliefs in the Case School are more commonly shared in the post than in the pre.

7.2. The Response Rate

7.2.1. Response Rate for the Case and the Control Schools Prior

The questionnaire was administered to the populations of both schools. The total number of staff who responded from the Case School was 145 out of 241 i.e. a percentage of 60.2%. Whereas the total number of staff who responded from the Control School was 105 out of 141 i.e. a percentage of 74.5%. A detailed investigation was then conducted into the responses to define the response rate from the different sections as well as the different job categories in the schools. Table 25 and Table 26 below show the breakdown of responses in comparison to the number of staff in each section and in each job category.

Note that the difference between the total and the detailed break down is that some respondents did not indicate their section or their job title.

Case School			
Section/Subject	Number of staff	Number of staff responded	% of staff responded in Case School
Arabic	6	5	83.3
Automobile	18	10	55.6
Car Body Work	6	1	16.7
Carpentry	8	2	25.0
Computer	10	8	80.0
Contemporary Issues & Geography	2	2	100.0
Diesel	10	4	40.0
Electrical	26	3	11.5
Electronics and Communications	17	0	0.0
English	12	8	66.7
Machine Shop	16	10	62.5
Mathematics	12	4	33.3
Mechanics	4	3	75.0
Physical Activity	4	0	0.0
Plumbing	6	5	83.3
Problem Solving	3	1	33.3
Refrigeration and Air Conditioning	12	9	75.0
Religion	3	1	33.3
Science	8	7	87.5
Technical Drawing	11	6	54.5
Welding	14	5	35.7
Total	208	94	45.2

Control School			
Section/Subject	Number of staff	Number of staff responded	% of staff responded in Control School
Arabic	4	5	125.0
Automobile	8	8	100.0
Car Body Work		0	
Carpentry	7	7	100.0
Computer	5	4	80.0
Contemporary Issues	1	0	0.0
Diesel	6	0	0.0
Electrical	19	15	78.9
Electronics and Communications	11	8	72.7
English	9	7	77.8
Machine Shop	7	5	71.4
Mathematics	8	4	50.0
Mechanics	1	1	100.0
Physical Activity	2	3	150.0
Plumbing		0	0.0
Problem Solving	2	0	0.0
Refrigeration and Air Conditioning	8	5	62.5
Religion	2	0	0.0
Science	4	5	125.0
Technical Drawing	6	5	83.3
Welding	10	5	50.0
Total	120	87	72.5

Table 25: Responses break down in comparison with number of staff in each section

(Note: % of staff responded in some sections is higher than 100% and that is because the member of staff is teaching a subject but under the management of a different section than his subject as the number of students in the school is small to have a dedicated section for the subject)

Case School				Control School			
Job	**Number of staff**	**Number of staff responded**	**% of staff responded in Case School**	**Job**	**Number of staff**	**Number of staff responded**	**% of staff responded in Control School**
Accountant	1	0	0.0	Accountant	0	0	0.0
Administrative Supervisory	4	0	0.0	Administrative Supervisory	2	1.5	75.0
Deputy Headmaster	2	1	50.0	Deputy Headmaster	2	0	0.0
Facilities Technician	2	0	0.0	Facilities Technician	1	0	0.0
Financial supervisor	1	0	0.0	Financial supervisor	1	0	0.0
Guard	3	0	0.0	Guard		0	0.0
Headmaster	1	0	0.0	Headmaster	1	0	0.0
Information Technician	1	0	0.0	Information Technician	0	0	0.0
Librarian	1	0	0.0	Librarian	1	1	100.0
Librarian Assistant	1	0	0.0	Librarian Assistant	1	1	100.0
Porter & Tea boy	3	0	0.0	Porter & Tea boy	2	0	0.0
Quality Specialist	1	0	0.0	Quality Specialist	0	0	0.0
Registration Specialist	1	1	100.0	Registration Specialist	1	0.5	50.0
Registration Technician	1	1.5	150.0	Registration Technician	2	2	100.0
Science Lab Technician	1	0	0.0	Science Lab Technician	1	1	100.0
Senior & Computer Lab Technician	2	1	50.0	Senior & Computer Lab Technician	1	0	0.0
Senior Facilities Technician	0	0		Senior Facilities Technician	0	0	0.0
Senior Information Technician	1	0	0.0	Senior Information Technician	1	0	0.0
Social Guidance Specialist	4	0	0.0	Social Guidance Specialist	1	2	200.0
Vocational Guidance Specialist	2	0	0.0	Vocational Guidance Specialist	3	3	100.0
Head of Sections and Temporary Head of Sections	20	12	60.0	Head of Sections and Temporary Head of Sections	18	6	33.3
Teacher	188	108.5	57.7	Teacher	102	83	81.4
Total	241	125	51.9	**Total**	141	101	71.6

Table 26: Responses break down in comparison with number of staff in each job category

(Note: % of staff responded in some occupations is higher than 100% and that is because the staff is taking more than a job in the school)

7.2.2. Response rate for Case and Control Schools Post

For the post-study the same questionnaire was administered to the populations of both schools. The same length of time was given to the respondents to return the questionnaire (10 days). The total number of staff who responded from the Case School was 117 out 244 (48% response rate) and the number of staff who responded from the Control School was 65 out of 152 (42.8% response rate). During the questionnaire administration the managements of both schools were attending a course organised by the Ministry of Education.

The researcher believes that the drop in response rate is due to the absence of the management of both schools from their schools i.e. less control on staff to return the questionnaire. Table 27 and Table 28 below show the breakdown of responses in comparison to the number of staff in each section and in each job category.

Case School					Control School			
Section/Subject	Number of staff	Number of staff responded	% of staff responded in Case School		Section/Subject	Number of staff	Number of staff responded	% of staff responded in Control School
Arabic	6	1	16.7		Arabic	4	0	0.0
Automobile	16	9	56.3		Automobile	9	8	88.9
Car Body Work	7	0	0.0		Car Body Work	0	0	0.0
Carpentry	6	5	83.3		Carpentry	8	8	100.0
Computer	10	6	60.0		Computer	6	0	0.0
Contemporary Issues & Geography	3	3	100.0		Contemporary Issues	2	2	100.0
Diesel	11	9	81.8		Diesel	6	4	66.7
Electrical	29	10	34.5		Electrical	20	11	55.0
Electronics and Communications	18	7	38.9		Electronics and Communications	9	0	0.0
English	13	12	92.3		English	8	6	75.0
Machine Shop	14	0	0.0		Machine Shop	7	3	42.9
Mathematics	11	0	0.0		Mathematics	8	3	37.5
Mechanics	4	3	75.0		Mechanics	2	0	0.0
Physical Activity	4	0	0.0		Physical Activity	3	0	0.0
Plumbing	6	6	100.0		Plumbing	0	0	0.0
Problem Solving	4	2	50.0		Problem Solving	2	0	0.0
Refrigeration and Air Conditioning	10	0	0.0		Refrigeration and Air Conditioning	7	5	71.4
Religion	3	2	66.7		Religion	2	0	0.0
Science	8	8	100.0		Science	5	3	60.0
Technical Drawing	12	9	75.0		Technical Drawing	6	4	66.7
Welding	16	12	75.0		Welding	9	1	11.1
Total	211	104	49.3		**Total**	123	58	47.2

Table 27: Responses break down in comparison with number of staff in each section

Case School					Control School			
Job	**Number of staff**	**Number of staff responded**	**% of staff responded in Case School**		**Job**	**Number of staff**	**Number of staff responded**	**% of staff responded in Control School**
Accountant	1	0	0.0		Accountant	1	0	0.0
Administrative Supervisory	4	0	0.0		Administrative Supervisory	4	0	0.0
Deputy Headmaster	2	1	50.0		Deputy Headmaster	2	0	0.0
Facilities Technician	2	1	50.0		Facilities Technician	1	0	0.0
Financial supervisor	1	0	0.0		Financial supervisor	1	0	0.0
Guard	4	0	0.0		Guard	3	0	0.0
Headmaster	1	0	0.0		Headmaster	1	0	0.0
Information Technician	2	0	0.0		Information Technician	1	0	0.0
Librarian	1	0	0.0		Librarian	1	1	100.0
Librarian Assistant	1	0	0.0		Librarian Assistant	1	1	100.0
Porter & Tea boy	4	0	0.0		Porter & Tea boy	4	0	0.0
Quality Specialist	1	0	0.0		Quality Specialist	1	1	100.0
Registration Specialist	1	0	0.0		Registration Specialist	1	0	0.0
Registration Technician	1	1	100.0		Registration Technician	1	0	0.0
Science Lab Technician	1	0	0.0		Science Lab Technician	1	1	100.0
Senior & Computer Lab Technician	1	0	0.0		Senior & Computer Lab Technician	2	0	0.0
Senior Facilities Technician	0	0	0.0		Senior Facilities Technician	0	0	0.0
Senior Information Technician	1	0	0.0		Senior Information Technician	1	0	0.0
Social Guidance Specialist	4	0	0.0		Social Guidance Specialist	3	2	66.7
Vocational Guidance Specialist	3	0	0.0		Vocational Guidance Specialist	3	2	66.7
Head of Sections and Temporary Head of Sections	18	12	66.7		Head of Sections and Temporary Head of Sections	16	4	25.0
Teacher	190	94	49.5		Teacher	103	53	51.5
Total	244	109	44.7		**Total**	152	65	42.8

Table 28: Responses break down in comparison with number of staff in each job category

7.3. The Schools' Cultures Explained Descriptively

Based on a systematic approach (explained in section 4.8.2.2) that uses the modes and ranges of the different beliefs and values, the cultures of the schools at different stages of time are described in this section. Appendix 13 provides the detailed data from which this finding was drawn.

7.3.1. The Culture of the Case School Pre the Implementation of the Performance Measurement System

External Adaption Issues

The mission of the school is seen to be based on meeting the needs of two stakeholders, the students and the Ministry of Education. The school has multiple goals and no consensus exists between the different occupational levels (for a full list of goals identified see appendix 16). There is no prominent mean for assessing the school's performance as the school uses, to a minimal extent, both formal research and feedback from stakeholders or senses from the external environment. Staff have defined areas of control for doing their jobs, but they are not offended if they are given advice in their areas. Their performance is measured chiefly by formal measures such as statistical data or written evidence. The measures used to assess them are based on and in order of importance are : accomplishing whatever jobs (not educational) allocated to them by higher authority, Students' results and success percentages, and Teaching and the interaction of students with them. However, there are inconsistencies between what they are measured by and what they want to be measured by, which in affect influence the psychological contract. For a full list of the performance measures by which the staff are measured, or want to be measured, see appendix 12.

Internal Integration Issues

Regarding the internal integration issues, the language used is fully understood; there are no social groupings within the school, and relationships in the school are described to be only work relationships. Influence is primarily derived from personal characteristics, and formal rank and job description of which formal rank is based on both education credentials and loyalty. The rewards in the school are given to those loyal and those who do jobs other than their main job. On the other hand, action against staff is to those who break either the employment regulations set by the Ministry of Education or Civil Service Bureau, or to those who breach the school's

procedures. Rewarding is chiefly by gratitude certificates and to a lesser extent by financial incentives at the end of the year. Staff against whom disciplinary action is taken, receive warning letters.

Reality and Truth

In determining truth and reality members of the school would use objective testing to determine the external physical reality. For social reality (the matters that can not be objectively tested), the school depends on the person with the highest authority to decide on the best decision. Individual reality is constructed through elder statesmen's experiences such as in lineal societies. In seeking validation of reality and also for avoiding uncertainty the school seems to use both pragmatic and moral criteria. Lastly, information provided to other functional groups are fully understood and the actions of those groups confirm their understanding.

Space and Time

The basic time orientation prevailing in the school is worrying about getting the immediate tasks done and also the near future tasks like the mid-term results. The time format prevalent is monochronic where only one thing could be done at a time and staff collaborate to work on similar time formats.

Spaces are believed to be shared in the school highlighting lack of privacy. However, for those spaces distributed the belief that these spaces are distributed to ascribe the perceived importance to the job as well as the needs of the job. The distribution of resources on the other hand ascribes equally to status and power, the perceived importance of the job, and the needs of the job. The management of the school have an open door policy, their warm gestures towards staff emphasise their closeness to the staff of the school.

Human Nature, Activity, and Relationships

The assumption held about the nature of staff is that they are socially participant, primarily motivated by their social needs and relating to their peers and social groups. Whereas the activity attitude that prevails in the school towards challenges is "we can do something about them" (doing orientation). No one-sided scale is found to be dominant in the Individualism and Groupism scale or Universalistic (stereotyping) and Particularistic viewing of participants to each other's scale. The bases for social status are nor clearly defined, but seem to be based more on the person's accomplishments.

High power distance exists in the school and work is considered more important to staff than their self interests.

External Adaptation Issues

No means for assessing the school's performance, but equally uses formal research and sensing from external sources

Formal performance measures for staff

Meeting the needs of students, & MoE

Aspired staff performance measures are: Teaching and Interaction with the students, Students' results, and Endeavour, honesty in doing the job

Confusion about means of getting work done, but more to one has defined turf of control

Human Nature, Activity and Relationships

Work is primary in comparison to staff's self-interests

Role relationships not clearly defined and mixed between universalistic and particularistic

Basis for social status is not clearly defined, but based more on the person's accomplishment

High power distance

Multiple goals the most common are: Develop the students' knowledge and skills to satisfy the needs of labour market, Improve the students' knowledge and practical skills, and Improve the students' behaviour and values

Doing orientation toward problems and environment

Individualistic and Groupism

Information are understood across the org and actions are taken accordingly

Actual staff performance measures are: Accomplishing whatever jobs by higher authority, students' results, and Teaching and Interaction with the students

Staff are motivated by the need to relate to their peers and social groups

Reality is tested by mixer of pragmatic and moral criteria and to tolerance for ambiguity

Reality & Truth

Social reality is constructed chiefly through the person with highest authority

Managers have open door policy

Individual reality is constructed through elder statesmen experiences i.e. lineal culture

Relationships in the school are work relationships

Space & Time

Shared spaces and lack of privacy

Physical reality is objectively tested

Power is derived from Personal characteristics, and Formal rank

Spaces allocation symbolises perceived importance of job and needs of the job

Resources allocation symbolises equally status, perceived importance of job and the needs of the job

Monochronic time and staff work on similar pace

Action are given for breaking the employment regulations and the school's procedures

Closeness of management to staff

Worrying about getting the immediate and near future tasks done

Action by warning letter

Dressing style doesn't reflect status or power

Formal rank based on Education credential and loyalty

Rewards by gratitude certificates, followed by financial incentives

Rewards are given primarily for loyalty and doing jobs other than the main job

Internal Integration Issues

Figure 48: The Case School's Culture Pre Implementing the PMS

7.3.2. The Culture of the Case School Post the Implementation of the Performance Measurement System

External Adaptation Issues

The mission of the school is seen to be based, in addition to meeting the needs of the students and the Ministry of Education, on the needs of the labour market. There seem to be consensus on the goals of the school of which the most stated three goals are : develop the students' knowledge and skills to satisfy the requirement of the labour market, develop the students to be good citizens, and develop the quality of the educational process. The school uses formal research to gauge its performance. Staff don't have defined areas of control for doing their jobs, and are not offended if they are given advice in their areas as different opinions are valued. Staff performance is measured chiefly by formal measures such as statistical data or written evidence. The measures used to assess them are based on, and in order of, importance, they are: teaching and interaction of students with them, students' results and success percentages, and accomplishing whatever jobs (not educational) allocated to them by a higher authority. The measures staff are measured by are the same as the ones they aspire to be measured by except the order of these measures.

Internal Integration Issues

Different from pre are the relationships in the school which became friendship and familial relationships instead of work relationships. Moreover, influence is now also derived from expertise and knowledge. Loyalty has become more important for having a formal rank. The rewards in the school are now given for high performance in the main job, doing other jobs than the main job, and also for adhering to the employment regulations. Action is taken against staff who break the employment regulations set by the Ministry of Education or Civil Service Bureau, to those who breach the school's procedures, to those who do not achieve high performance in their main area and also to those who do not meet the specified targets. In addition to rewarding by gratitude certificates the school now rewards by verbal thanking and by promotion to a higher ranked position. Means of disciplinary action stayed the same – warning letters.

Reality and Truth

Social reality is now constructed through both the decision of the most experienced person and the person with the highest authority. The school belief changed in relation to seeking validation of reality, which became dependent on pragmatic criteria.

Information provided to other functional groups is still fully understood, but these groups don not act accordingly!

Space and Time

Time orientation has changed to chiefly worrying about getting the immediate tasks done. The time format believed to be used in the school also changed to being monochronic and polychronic, but collaborating staff still work on similar time formats.

The belief about the symbolism of space distribution has changed to symbolise status and power, and perceived importance of the job. The distribution of resources on the other hand now primarily ascribes the needs of the job. The management of the school have an open door policy; their warm gestures towards staff have increased to emphasise an increase in their closeness to the staff.

Human Nature, Activity, and Relationships

The assumption held about the nature of staff has also changed in addition to believing that they are socially participant, primarily motivated by their social needs and relating to their peers and social groups is that they are self-actualisers and need to be challenged rather than controlled. Groupism now is the assumption held about how people relate to each other in the school and Universalistic (stereotyping) viewing of participants to each other became the dominant view.

Meeting the needs of students, MoE, Labour Market

Formal research to know the org. performance

Formal performance measures for staff

No one has defined turf of control

Basis for social status is not clearly defined, but based more on the person's accomplishment

Work is primary in comparison to staff's self-interests

Aspired staff performance measures are: Teaching and Interaction with the students, Accomplishing whatever jobs by higher authority, and Education, knowledge and experience

Doing orientation toward problems and environment

Human Nature, Activity and Relationships

Role relationships are not clearly defined, but more on the universalistic side

High power distance

Consensus on goals: Develop the students' knowledge and skills to satisfy the requirements of the labour market, develop the students to be good citizens, and develop the quality of the educational process

Staff are motivated by the need to relate to their peers and social groups, and by challenges

Groupism

Reality is tested by pragmatic criteria and to tolerance for ambiguity

Information are claimed to be understood across the org, but actions refute this claim

Actual staff performance measures are: Teaching and Interaction with the students, Students' results, and Accomplishing whatever jobs by higher authority.

Individual reality is constructed through elder statesmen experiences i.e. lineal culture

Social reality is constructed through the decision of most experience person, and person with highest authority

Reality & Truth

Managers have open door policy

Friendship and familial relationships

Shared spaces and lack of privacy

Spaces allocation symbolises status and perceived importance of jobs

Physical reality is objectively tested

Space & Time

Power is derived from Personal characteristics, Formal rank, and expertise and knowledge

Closeness of management to staff

Resources allocation symbolises the needs of jobs

Monochronic and Ploychronic times, but staff work on similar pace

Action are given for breaking the employment regulations and the school's procedures, not achieving high performance in main area, not accomplishing jobs by higher authority, not meeting specified targets

Dressing style doesn't reflect status or power

Worrying about getting the immediate tasks done chiefly

Action by warning letter

Formal rank based on Education credential and loyalty

Rewards are given for high performance in the main job, doing jobs other than the main job, adhering to the employment regulations

Rewards by gratitude certificates, verbal thanking, and higher ranked position

Figure 49: The Case School's Culture Post Implementing the PMS

7.3.3. The Culture of the Control School Pre the Implementation of the Performance Measurement System

External Adaptation Issues

The mission of the school is seen to be based on meeting the needs of the students, the Ministry of Education, and other governmental departments. The school has multiple goals but no consensus about them exists between the different occupational levels. The school assesses its performance through feedback from stakeholders or senses from the external environment. Staff do not have defined areas of control for doing their jobs and they are not offended if they are given advice in their areas. Their performance is measured chiefly by formal measures such as statistical data or written evidence. The measures used to assess the staff performance are similar to the measures aspired to by the staff. These measures are based on and in the order of their importance are : teaching and interaction of students with them, accomplishing whatever jobs (not educational) allocated to them by a higher authority, and students' results and success percentages.

Internal Integration Issues

Regarding the internal integration issues the language used is fully understood, there are no social groupings within the school, and relationships in the school are mixed between work relationships and friendship and familial relationships. Influence is derived from personal characteristics, formal rank and job description, network of support and alliances, and expertise and knowledge. Formal rank is based on both education credentials and loyalty. The rewards in the school are given for accomplishing jobs for a higher authority, high performance in the main area, doing jobs other than their main job, and adhering to the school's procedures. Action against staff on the other hand are to those who break the employment regulations set by the Ministry of Education or Civil Service Bureau, breach the school's procedures, do not control their classrooms, do not achieve high performance in their main areas, and do not accomplish jobs allocated by a higher authority. Rewarding is mainly by gratitude certificates whereas action against staff is carried out by giving warning letters.

Reality and Truth

In determining truth and reality members of the school would use objective testing to determine the external physical reality, the opinion of the person with the highest authority to determine the social reality, and elder statesmen's experiences for

determining the individual reality. In seeking validation of reality and also for avoiding uncertainty the school seems to use both pragmatic and moral criteria. Lastly, information provided to other functional groups is fully understood and the actions of those groups confirm their understanding.

Space and Time

The basic time orientation prevailing in the school is worrying about getting the immediate tasks done and also the near future tasks like the mid-term results. Monochronic and polychronic time formats are adapted in the school; however, staff collaborate to work on similar time formats.

Spaces are believed to be shared in the school, which highlight a lack of privacy. However, for those spaces distributed the belief is that these spaces are distributed to ascribe status and power, perceived importance of the job as well as the needs of the job. The distribution of resources on the other hand symbolises primarily the needs of the job. The management of the school have an open door policy, their warm gestures towards staff emphasise their closeness.

Human Nature, Activity, and Relationships

The assumption held about the nature of staff on one hand is that they are socially participant, primarily motivated by their social needs and relating to their peers and social groups, and on the other hand that they are self-motivated and need to be challenged and not controlled. Whereas the activity attitude that prevails in the school towards challenges is "we can do something about them" (doing orientation). Groupism is the assumption held about how people relate to each other in the school. However, there was no dominant scale on the Universalistic (stereotyping) and Particularistic viewing of participants to each other scale. The bases for social status are clearly defined and are based on the person's accomplishments. Low power distance exists in the school and work is considered more important to staff than their self interests.
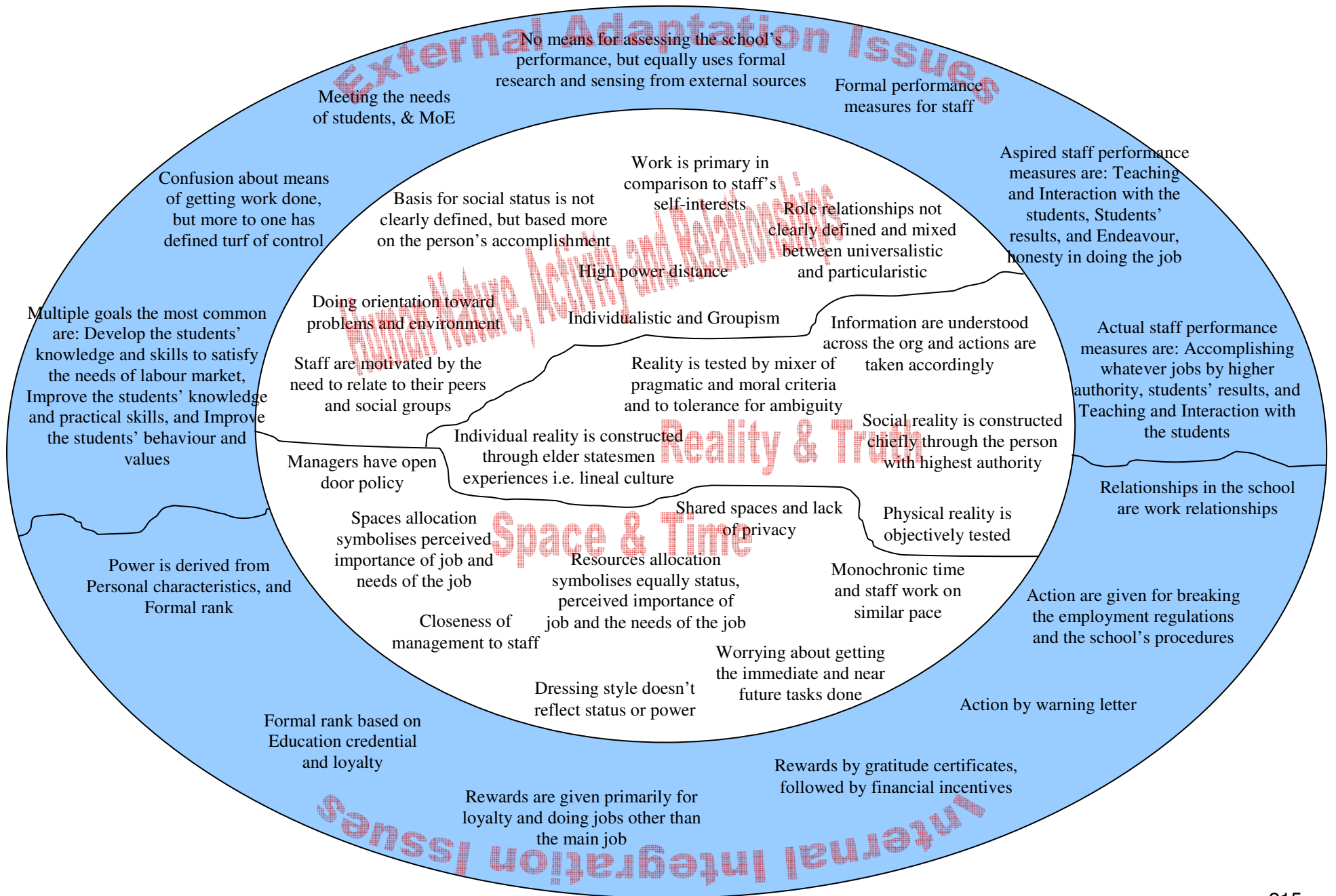
External Adaptation Issues

Sensing from external sources to know the org. performance

Formal performance measures for staff

Meeting the needs of students, MoE, other governmental departments and labour market

Aspired staff performance measures are: Teaching and Interaction with the students, Accomplishing whatever jobs by higher authority, and Students' results

No one has defined turf of control

Human Nature, Activity and Relationships

Work is primary in comparison to staff's self-interests

Social status is based upon the person's accomplishment

Role relationships not clearly defined and mixed between universalistic and particularistic

Low power distance

Actual staff performance measures are: Teaching and Interaction with the students, Accomplishing whatever jobs by higher authority, and Students' results

Multiple goals the most common are: Develop the students' knowledge and skills to satisfy the requirements of the labour market, Improve the students' educational and practical skills, and Accomplish the goals of the local community

Doing orientation toward problems and environment

Groupism

Information are understood across the org and actions are taken accordingly

Staff are equally motivated by the need to relate to their peers and social groups and by challenges

Reality is tested by mixer of pragmatic and moral criteria and to tolerance for ambiguity

Reality & Truth

Social reality is constructed chiefly through the person with highest authority

Relationships in the school are mixed between friendship and familial, and are work relationships

Individual reality is constructed through elder statesmen experiences i.e. lineal culture

Managers have open door policy

Space & Time

Shared spaces and lack of privacy

Physical reality is objectively tested

Power is derived from Personal characteristics, Formal rank, Network of support and alliances, and expertise and knowledge

Spaces allocation symbolises status and power, perceived importance of job and needs of the job

Resources allocation symbolises primarily the needs of the job

Polychronic and Monochronic times, but staff work on similar pace

Action are given for breaking the employment regulations, the school's procedures, not controlling the classroom, not achieving high performance in the main area, not accomplishing jobs allocated by higher authority

Closeness of management to staff

Worrying about getting the immediate and near future tasks done

Dressing style doesn't reflect status or power

Formal rank based on Education credential and loyalty

Action by warning letter

Rewards are given for accomplishing jobs for higher authority, high performance in main job, doing jobs other than the main job, adhering to the school's procedures

Rewards by gratitude certificates
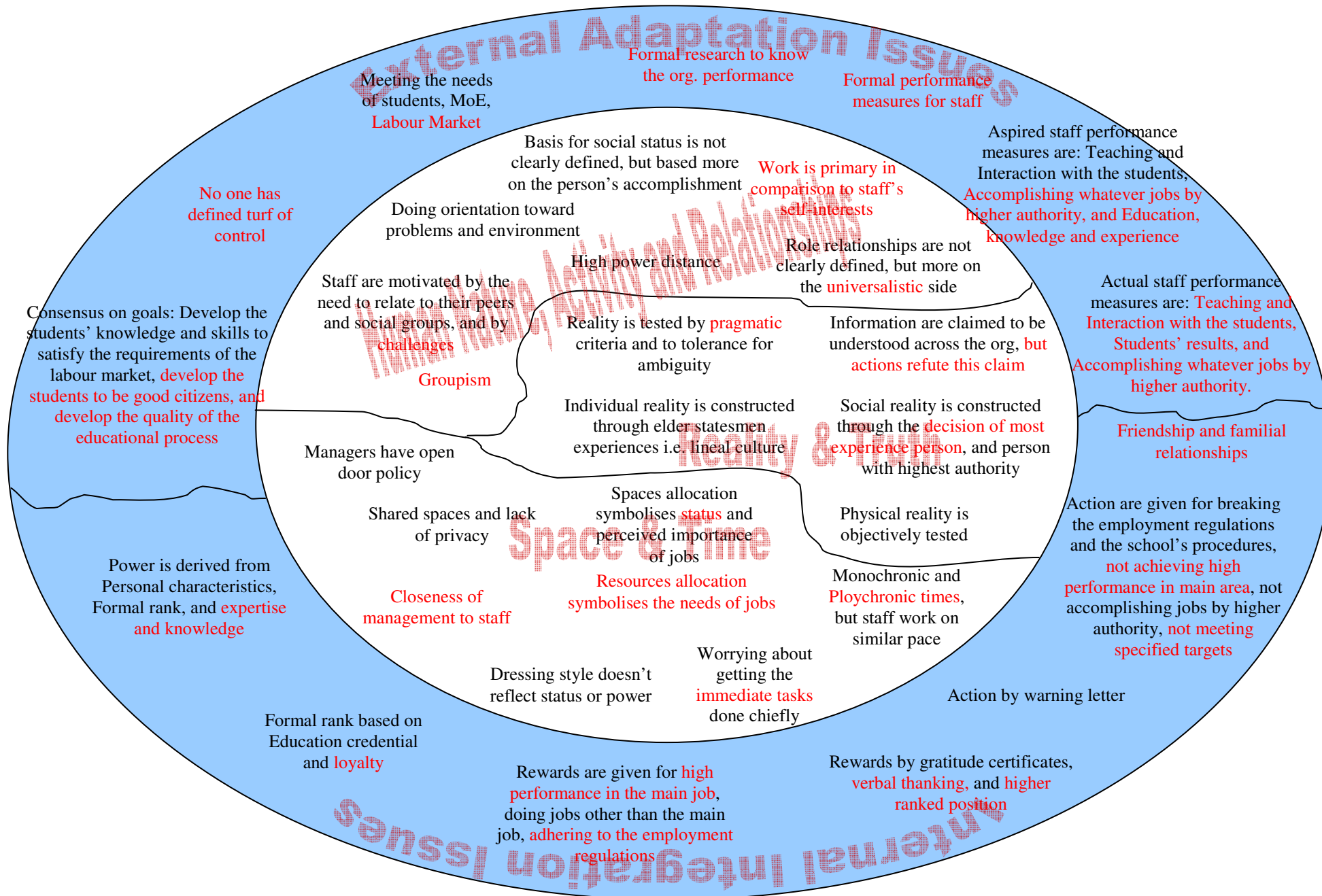
Internal Integration Issues

Figure 50: The Control School's Culture Post Implementing the PMS

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7.3.4. The Culture of the Control School Post the Implementation of the Performance Measurement System

External Adaptation Issues

The mission of the school is now only based on meeting the needs of the students and the Ministry of Education. The goals of the school have not changed nor their order of importance. The school however now assesses its performance by means of formal research. Means of getting work done now seem to be unclear i.e. staff neither have defined areas of control nor areas of control. The measures used to assess the staff's performance changed, and now include as a second measure "jobs accomplished for the school management", whereas in the pre it was "accomplishing jobs allocated by higher authority", which included Heads of Sections, but now only for the school management.

Internal Integration Issues

Relationships in the school are mixed between work relationships and friendship and familial relationships, but tend to be more on the work relationship side. Influence is now derived mainly from personal characteristics, formal rank and job description, and expertise and knowledge as opposed to pre that included network of support and alliances. Formal rank is based presently on only education credentials. The rewards in the school are given for accomplishing jobs for a higher authority, high performance in the main area, doing jobs other than their main job, and adhering to the employment regulations rather than the school's procedures. Action against staff is taken now, in addition to the previous misconducts, to staff who do not meet specified targets. Means of rewarding has changed, and now include verbal thanking and to a lesser extent rewarding by financial incentives at the end of the year. Means of taking disciplinary action against staff has also changed to include admonishing the member of staff.

Reality and Truth

No big changes happened in relation to truth and reality except that the school became more dependent on pragmatic criteria for seeking validation of reality.

Space and Time

The basic time orientation has changed to being more of worried about getting the immediate tasks done.

The beliefs of spaces did not change much except that staff now have allocated spaces that others do not share simultaneously, which means increased privacy.

Human Nature, Activity, and Relationships

The assumption held about the nature of staff is still that they are socially participant, primarily motivated by their social needs and relating to their peers and social groups, and that they are self-motivated and need to be challenged and not controlled. However, there has been an increase in the belief that they are self-actualisers. Role relationships have shifted increasingly towards Universalistic (stereotyping) viewing of participants to each other. Moreover, power distance has changed from low power distance to high power distance.

External Adaptation Issues

Formal research to know the org. performance

Formal performance measures for staff

Meeting the needs of students, and MoE

Aspired staff performance measures are: Teaching and Interaction with the students, Students' results and equally Education, knowledge and experience

Means of getting work done unclear

Human Nature, Activity and Relationships

Social status is based upon the person's accomplishment

Work is primary in comparison to staff's self-interests

Role relationships not clearly defined, but more on the universalistic side

Doing orientation toward problems and environment

High power distance

Groupism

Dispersed actual staff performance measures, the common are: Teaching and Interaction with the students, Jobs accomplished for the school management, and Students' results

Multiple goals the most common are: Develop the students' knowledge and skills to satisfy the requirements of the labour market, Improve the students' educational and practical skills, and Accomplish the goals of the local community

Staff are motivated chiefly by challenges and then by the need to relate to their peers and social groups

Reality & Truth

Reality is tested by pragmatic criteria and to tolerance for ambiguity

Information are understood across the org and actions are taken accordingly

Social reality is constructed chiefly through the person with highest authority

Relationships in the school are work relationships

Managers have open door policy

Individual reality is constructed through elder statesmen experiences i.e. lineal culture

Allocated spaces to staff and privacy

Physical reality is objectively tested

Action are given for breaking the employment regulations, the school's procedures, not controlling the classroom, not achieving high performance in the main area, not accomplishing jobs allocated by higher authority, and not meeting specified targets

Power is derived from Personal characteristics, Formal rank, and expertise and knowledge

Space & Time

Spaces allocation symbolises status and power, perceived importance of job and needs of the job

Closeness of management to staff

Resources allocation symbolises equally status and power, perceived importance of job and the needs of the job

No prominent operational time, but staff work on similar pace

Worrying about getting the immediate tasks done

Formal rank is based primarily on Education credential

Dressing style doesn't reflect status or power

Action by warning letter, and admonishing the member of staff

Rewards are given for accomplishing jobs for higher authority, high performance in main job, doing jobs other than the main job, and adhering to the employment regulations

Rewards by gratitude certificates, verbal thanking, followed by financial incentives

Internal Integration Issues

Figure 51: The Control School's Culture Post Implementing the PMS

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7.4. Statistical Beliefs Comparison Prior and Post the Implementation of the Performance Measurement System within and across the Schools for the Schools as a whole

The previous section presented the cultures of the schools descriptively. This section goes a step further to investigate whether the changes which happened in the schools are statistically significant or not. To achieve this goal, the schools were compared across all variables (101) testing the five culture belief dimensions statistically using the Mann-Whitney test. Table 29 below shows a summary of the findings from the tests run.

Ten differences in beliefs were observed between the Case and the Control School prior to implementing the PMS, and 5 differences between the schools post the implementation. Moreover, 8 differences were found in the Case School from prior to post, and 9 differences in the Control School from prior to post.

The result of comparing the schools post implementation suffers from type 1 error indicating that the schools' overall cultures are similar. Hence, one asks "what happened in each school so that their cultures became similar?"

A number of changes happened across the different culture dimensions, which confirm statistically the findings obtained and descriptively presented in section 7.3.

On the dimension of external adaptation issues, the Case School conducts formal research to determine its performance as staff in post believe more (median=3, mean rank=135) in comparison to pre (median=2, mean rank=113), z=-2.796, p=0.05, and r=-0.16. Moreover, the statistical difference between the schools observed in the pre about "using objective measures by the schools to evaluate their staff" does not exist in the post. This change indicates that there is an increase in the belief of the Case School and a decrease in the Control School leading to the convergence in post.

On the dimension of internal integration issues, rewards post implementing the PMS are given less for loyalty, but instead are given for demonstrating high performance in the main job. Action against staff on the other hand post implementing the PMS are substantially for those who do not achieve high performance in their main areas of work (Pre: median= 3, mean rank= 114.19; Post: median= 4, mean rank= 134.18, z= -2.261, p= 0.024, r= -0.14).

Rewards post implementation is statistically confirmed to be given in the form of "verbal thanking" (Pre: median= 3, mean rank= 109.27; Post: median= 4, mean rank= 128.44, z= -2.215, p= 0.027, r= -0.14) and given moderately by means of "promotion to a higher rank position" (Pre: median= 2, mean rank= 104.67; Post: median= 2.5, mean rank= 126.99, z= -2.261, p= 0.008, r= -0.17). Moreover, the Mann-Whitney test confirms that relationships in the school are mainly "familial and friendship relationship".

In terms of beliefs and values related to Human Activity, Role and Relationship, the Mann-Whitney test also confirms that "individuality" is reduced post introducing the PMS in the Case School in comparison to before the PMS (Pre: median= 3, mean rank= 132.14; Post: median= 2, mean rank= 107.29, z= -2.840, p= 0.004, r= -0.18). Furthermore, "power distance" stayed the same in the Case School whereas it fell significantly in the Control School.

On the dimension of space and time, "closeness of management to staff" (Pre: median= 4, mean rank= 116.78; Post: median= 4, mean rank= 136.60, z= -2.228, p= 0.025, r= -0.14) increased in line with the change presented in the descriptive analysis earlier. Two beliefs related to time were also confirmed: (1) the school worry about getting the immediate tasks done (Pre: median= 4, mean rank= 115.41; Post: median= 4, mean rank= 134.70, z= -2.207, p= 0.027, r= -0.14); (2) time is tied to milestones like the labour market or other stakeholders' requirements - planning time.

Changes also happened in the Control School and are confirmed statistically, in particular, values relating to internal integration issues. For example, the staff significantly believe that "rewards are given for those who successfully accomplish whatever jobs allocated by a higher authority" (Pre: median= 3, mean rank= 74.83; Post: median= 4, mean rank= 89.46, z= -2.046, p= 0.041, r= -0.16). Action is taken against those who "breach the school's procedures" (Pre: median= 4, mean rank= 77.61; Post: median= 4, mean rank= 92.89, z= -2.136, p= 0.033, r= -0.17). Furthermore, the Mann-Whitney test also shows that staff of the Control School significantly believe that the school rewards by means of "verbal thanking". However, the descriptive finding that the school rewards by financial incentives is not statistically proven.

Power and influence beliefs were statistically confirmed in particular confirming the belief that influence is now less dependent on network of support and alliance (Pre: median= 4, mean rank= 87.82; Post: median= 3, mean rank= 71.83, , z= -2.192, p= 0.028, r= -0.17).

Regarding human, activity and relationship the "groupism" belief was slightly reduced (Pre: median= 4, mean rank= 88.42; Post: median= 4, mean rank= 72.09, z= -2.259, p= 0.024, r= -0.18) as found in the post study.

The majority of changes observed in the five cultural dimensions were confirmed statistically across the schools as a whole in this section. The next section will investigate the degree of shared-ness of beliefs and values across the different sections.

	Case vs. Control		Pre vs. Post	
Belief	**Pre**	**Post**	**Case**	**Control**
Rewards either tangible or intangible in the school are given for loyalty	Case			
Rewards either tangible or intangible in the school are given for demonstrating high performance in the main job	Control			
The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis	Control			
The school conducts formal research to know its performance	Control		Post	
Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you	Control		Post	
The people in the school worry only about how to get the immediate tasks done	Control		Post	
Other functional groups act exactly according to the information I provide them	Control			
In the school, if a group/committee worked on a project, each member tries to outshine others by showing his own accomplishment	Case		Pre	
If I have an issue or idea I can go straight to the management of the school to talk to them about it	Control			
Relationships in the school are friendship and familial relationships	Control			Pre
Resource allocation to staff symbolises perceived importance of the job		Control		
The school rewards by other forms of intangible rewards e.g. bigger project, asked to join a committee in the school or to participate in an activity, etc		Control		
In the school the management assumes that the staff are lazy and must therefore be motivated with economic incentives and controlled by constant surveillance		Control		
In the school, time for accomplishing things is tied to targets, milestones, or deadlines which are specified in advance and related to external deadlines like labour market needs		Case		
Social rewards such as status, task and project allocation are assigned on the basis of the person's accomplishments		Control	Pre	
The school rewards by promotion to a higher ranked position			Post	
The school rewards by verbal thanking			Post	Post
The school takes action against staff who does not achieve high performance in their main area			Post	
Rewards either tangible or intangible in the school are given for successful performance of whatever jobs were allocated by higher authority				Post
The school rewards by other forms of intangible rewards e.g. bigger project, asked to join a committee in the school or to participate in an activity, etc				Post
The school takes action against staff who break the school's procedures				Post

Influence, control and authority in the school is based on the network of support and alliances				**Pre**
The people in the school are living in the past reflecting on the good old days assuming things worked out then and must be good enough to work now and in the future				**Pre**
In the school, if a group/committee worked on a project, the group will present their achievement as a group				**Pre**
I do not trust anyone experience in the school unless it (the argument) is proven to me				**Pre**

Table 29: Beliefs comparisons of the schools pre and post across and with themselves – The name of the school or stage indicate higher believe

7.5. Beliefs comparison of the different types of sections within the different schools pre and post

Similar to the qualitative analysis, the analysis in this section will investigate statistically whether the beliefs and values are shared across the different section types. Table 30 presents the beliefs affected by the section types.

In the table below, 14 beliefs in the Case School and 15 beliefs in the Control School are affected by the section type prior to the implementation of the Performance Measurement System, which is also above the minimum of 0.05 of the variables for Type 1 error to occur. Whereas for the post implementation, 12 beliefs are affected by the section type in the Case School and 10 beliefs are affected in the Control School.

Belief	Case		Control	
	Pre	Post	Pre	Post
Mission of the school is based upon meeting the needs of other governmental departments	√			
The school rewards by giving gratitude certificate	√			
The school rewards by nomination to attend a course or join a committee outside the school	√			
Formal rank in the school is based on loyalty	√			
The school takes action against staff who can not control their classrooms	√			√
Influence, control and authority in the school is based on the network of support and alliances	√			
Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you	√		√	
In the school, time for developing and accomplishing tasks is characterised by "things will take as long as they will take" as things can not be speeded up or slowed down	√		√	
If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority vote	√			
I trust elder-statesmen experiences in the school	√			
The information I provide other functional groups are fully understood	√			
Managers in the school have an open-door policy	√	√		
People (management, Teachers, staff) in the school view each other based on stereotypes e.g. on job type, religion, nationality, etc	√			
People (management, Teachers, staff)in the school view each other in a very particularistic way as whole person	√	√		√
Space allocation to staff symbolises perceived importance of the job		√	√	
The school rewards by other tangible rewards e.g. desk, computer, resources		√	√	√
The school rewards by other forms of intangible rewards e.g. bigger project, asked to join a committee in the school or to participate in an activity, etc		√		
When action is taken against a member of staff, the school ends the contract of the staff or transfer him to another school		√		
In the school the management assumes that the staff are lazy and must therefore be motivated with economic incentives and controlled by constant surveillance		√		
In the school the management assumes that the staff are self-motivated and need to be challenged and channelled, not controlled		√	√	

Work to me is a higher priority in comparison to myself-interests		√	√	√
If I have a defined area of control, I would be insulted to be given advice in that area		√		
The people in the school worry about the far future e.g. by investing heavily in research and development, training, infrastructure, etc		√		
The school has groups in which outsiders are treated with hostility or indifference whereas insiders become privy to some more secret assumptions		√		
Resource allocation to staff symbolises perceived importance of the job			√	
The school rewards by the financial incentive at the end of the year			√	√
Formal rank in the school is based on education credential			√	
The school takes action against staff who break the school's procedures			√	
The school takes action against staff who does not accomplish whatever jobs were allocated to the person by higher authority			√	
Influence, control and authority in the school is based on Personal characteristics and track records e.g. ability to negotiate, survive with your ideas, convince			√	
In the school the management assumes that the staff are difficult to manage as they always adapt in relation to what they have been told			√	
In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me			√	√
Social rewards such as status, task and project allocation are assigned on the basis of the person's accomplishments			√	
Mission of the school is based upon meeting the needs of the parents				√
Influence, control and authority in the school is based on access and control of agendas				√
Other functional groups act exactly according to the information I provide them				√
Staff are allocated working spaces that others do not share simultaneously				√

Table 30: Beliefs affected by the Section Type

As mentioned in the methodology chapter (section 4.8.2.2) the Kruskal-Wallis test is like the one-way ANOVA test in that it does not detect which group among the groups is different (Field, 2005, Brace et al., 2006), therefore the Mann-Whitney test was conducted on pairs of sections to detect the differences between them. Below the researcher highlights the main findings.

The Case School pre

- The Electrical Sections differed from both the Academic and Mechanical Sections in 4 beliefs.

  The mission of the school seems to the Electrical Sections to be more based on the needs of other governmental departments (Elect median= 3; mean rank (a)= 35.92, mean rank (m)= 26) when compared to the other two types of sections. (Acad: median= 3, mean rank= 22.61; Mech: median= 3, mean rank= 17, z(a)= -3.050, p(a)= 0.002, r(a)= -0.43, z(m)= -2.435, p(m)= 0.015, r(m)= -0.39).

  The Electrical Sections also believe more (Elect Median= 5; mean rank (a)= 38.85, mean rank (m)= 31.44) that the body language of managers in the school represented in the welcoming/greeting gesture indicates warmth and closeness to staff (Acad: median= 4, mean rank= 25.62; Mech: median= 4, mean rank= 19.78, z(a)=-2.813, p(a)= 0.004, r(a)= -0.37, z(m)= -2.897, p(m)= 0.003, r(m)= -0.42).

  Time in the school for accomplishing tasks according to both the Mechanical and Academic Sections is seen more (Acad: median= 4, mean rank= 32.16; Mech: median= 3, mean rank= 27.55) as development time that is "things will take as long as they will take", (Elect Median= 1; mean rank (a)= 18.5, mean rank (m)= 13.9, z(a)= -2.883, p(a)= 0.003, r(a)= -0.39, z(m)= -3.407, p(m)= 0.000, r(m)= -0.51).

  The Electrical Sections believe less that influence is less based on the network of support and alliances (Elect Median= 3; mean rank (a)= 15.86, mean rank (m)= 15.21) when compared with the Academic and Mechanical Sections (Acad: median= 4, mean rank= 32.15; Mech: median= 3.5, mean rank= 25.9, z(a)= -3.421, p(a)= 0.000, r(a)= -0.46, z(m)= -2.710, p(m)= 0.006, r(m)= -0.41).

- The Electrical Sections and the Academic Sections differed in 4 beliefs.

  The Electrical Sections believe more that the school rewards by means of nomination to attending a course or being a member of a committee outside the school (Elect: median= 3, mean rank= 35.67; Acad: median= 2, mean rank= 23.03, z= -2.655, p= 0.008, r= -0.37).

  Moreover, under the internal integration dimension the Electrical Sections believe more than the Academic Sections that the school takes action against staff who cannot control their classrooms (Elect: median= 4, mean rank= 37.72; Acad: median= 3, mean rank= 24.81, z= -2.773, p=0.005, r= -0.39).

  The third belief is under social reality whereby the Electrical Sections believe more than the Academic Sections that decisions in the school are based on the vote of the majority when disagreements arise (Elect: median= 4, mean rank= 40.97; Acad: median= 2, mean rank= 24.73, z= -3.329, p= 0.001, r= -0.44).

  Fourthly, the Electrical Sections believe that there is less power distance in the school as managers have an open door policy (Elect: median= 4, mean rank= 38.65; Acad: median= 4, mean rank= 26.5, z= -2.550, p= 0.010, r= -.033).

- The Electrical Sections and the Mechanical Sections differed in 2 beliefs.

  Formal ranking in the school according to the Electrical Sections seem to be less based on loyalty (Elect: median= 2, mean rank= 13.23; Mech: median= 4, mean rank= 22.66, z= -2.402, p= 0.015, r= -0.38). Moreover, stereotyping staff is less believed to be the belief about how people view each other (Elect: median= 1, mean rank= 15.69; Mech: median= 3, mean rank= 27.03, z= -2.847, p= 0.004, r= -0.42) in the school.

- The Academic Sections differed from the Mechanical Sections in 1 belief only.

  The Academic Sections believe more than the Mechanical Sections that the school rewards by giving gratitude certificates (Acad: median= 5, mean rank= 37.92; Mech: median= 4.5, mean rank= 27.5, z= -2.417, p= 0.015, r= -0.30.

After looking at the differences one can observe, and after doing the calculations one can conclude, that the majority of differences (8 differences) are between the Academic and Electrical Sections, followed by 6 differences between the Mechanical and Electrical Sections, and only 1 difference between the Academic and Mechanical Sections. These differences highlight that the Electrical Sections differ the most from the other two types of sections. In another words, there seem to be a consensus between the beliefs of the Academic and Mechanical Sections, however the Electrical Sections beliefs are contradictory.

The Control School pre

- The Electrical Sections and the Mechanical Sections differed in 6 beliefs.

    On the External Adaptation dimension, the Mechanical Sections believe more that the staff of the school have defined areas of control, budget, and subordinates that are not shared (Elect: median= 2, mean rank= 20.48; Mech: median= 3, mean rank= 31.39, z= -2.727, p= 0.006, r= -0.39).

    According to the Mechanical Sections the symbolic of resources allocation is more dependent on the perceived importance of the job (Elect: median= 4, mean rank= 20.35; Mech: median= 4, mean rank= 29.83, z= -2.460, p= 0.013, r= -0.36). More on the Internal integration issue, the Mechanical Sections also believe more than the Electrical Sections that the schools reward by financial incentives at the end of every year (Elect: median= 3, mean rank= 19.10; Mech: median= 4, mean rank= 28.74, z= -2.487, p= 0.012, r= -0.37).

    The Mechanical Sections also seem to believe more that power and influence in the school are based on the person's track record like his ability to convince and negotiate (Elect: median= 3, mean rank= 20.09; Mech: median= 4, mean rank= 31.02, z= -2.777, p= 0.005, r= -0.40).

    On the Human Nature, Activity and Relationship dimension, the Electrical Sections believe more that the management assumes that the staff are difficult to manage as they always adapt to what they have been told "Type Z" (Elect: median= 2.5, mean rank= 31.12; Mech: median= 1, mean rank= 18.09, z= -3.327, p= 0.001, r= -0.48). Whereas on they believe less that the staff in the school see work is of higher priority than their self-interests (Elect: median= 2.5,

mean rank= 20.37; Mech: median= 5, mean rank= 30.24, z= -2.525, p= 0.011, r= -0.36.

- The Academic Sections and the Mechanical Sections differed in 2 Internal Integration beliefs.

    Formal rank in the school is believed, according the Mechanical Sections, to be based more on educational credentials (Mech: median= 4, mean rank= 32.89; Acad: median= 3.5, mean rank= 21.82, z= -2.800, p= 0.005, r= -0.39). Moreover, the Mechanical Sections believe more that the school takes action against staff who breach the school's procedures (Mech: median= 5, mean rank= 33.75; Acad: median= 4, mean rank= 23.20, z= -2.637, p= 0.008, r= -0.36).

- The Mechanical Sections differed from both the Electrical and Academic Sections in 1 belief related to the dimension of time.

    Mechanical Sections' staff seem to believe more than both sections that the time for accomplishing things in the school is characterised as being "Development Time" that is things will take as long as they will take (Mech: median= 3, mean rank (a)= 34, mean rank (e)= 29.89; Acad: median= 2, mean rank= 23.69, Elect median= 2, mean rank= 19.54, z(a)= -2.463, p(a)= 0.013, z(e)= -2.407, p(e)= 0.006, r (a)= -0.33, r (e)= -0.35.

- The Electrical Sections differed from both the Academic and Mechanical Sections in 1 internal integration belief.

    Rewards by other tangible means like a better desk, computer, etc seem to be less the mean for reward for the Electrical Sections compared to the other section types (Mech: median= 3, mean rank= 29.62; Acad: median= 2, mean rank= 33.23, Elect median= 2, mean rank (a)= 21.72, mean rank (m)= 18.36, z (a)= -2.857, z (m)= -2.987, p(a)= 0.004, p(m)= 0.002, r (a)= -0.39, r (m)= -0.44).

From the points above, most differences in beliefs exist between the Mechanical and Electrical Sections (8 differences) whereas 4 differences exist between the Academic and Mechanical Sections and no differences between the Electrical and Academic

Sections. Therefore, one can conclude that there is a consensus in beliefs of the Electrical and Academic Sections whereas the Mechanical Sections contradict both, but primarily the Electrical Sections' beliefs.

The Case School post

- The Mechanical Sections and the Electrical Sections differ in 5 beliefs.

  Three of these beliefs are Human Nature, Activity, and Relationships : the Mechanical Sections believe less than the Electrical Sections that the management assumes that the staff are lazy and must be motivated by financial incentives (Mech: median=2, mean rank= 22.66; Elect median= 3, mean rank= 34.55, z= -2.827, p= 0.004, r= -0.38). The Mechanical Sections also believe less that the staff of the school individualise each other in comparison to the Electrical Sections (Mech: median= 1, mean rank= 24.18; Elect median= 2, mean rank= 35.18, z= -2.583, p= 0.010, r= -0.35). The Mechanical Sections seem to believe more than the Electrical Sections that work to staff is more important than their self-interests (Mech: median= 5, mean rank= 32.21; Elect median= 4, mean rank= 21.68, z= -2.524, p= 0.012, r= -0.34.

  The fourth belief is related to the Internal Integration issues' dimension of which the Mechanical Sections believe less that the school has groups (Mech: median= 2, mean rank= 23.74 ; Elect median= 3, mean rank= 35.86, z= -2.802, p= 0.005, r= -0.37).

  The last belief relates to power distance of which the Mechanical Sections believe that there is low power distance between the management and staff as the managers have an open-door policy (Mech: median= 4, mean rank= 33.35; Elect median= 2, mean rank= 21.00, z= -2.868, p= 0.003, r= -0.38).

- The Mechanical Sections and the Academic Sections differ in 2 beliefs.

  One relates to Internal Integration issues and the other relates to External Adaptation issues. In terms of Internal Integration, the Academic Sections believe more than the Academic Sections that the school rewards by intangible rewards such as rewarding by bigger projects or joining a committee (Mech: median 3=, mean rank= 26.46; Acad: median= 3, mean rank= 37.09, z= -2.529,

p= 0.012 , r= -0.31). For the External Adaptation issues, the Mechanical Sections believe less that if staff have defined areas of control, they would be insulted if they were provided with advice in their areas (Mech: median= 2, mean rank= 32.57; Acad: median= 2, mean rank= 44.08, z= -2.463, p= 0.014, r= -0.28).

- The Academic Sections and the Electrical Sections differ in 2 beliefs.

  In the first, the Academic Sections believe less than the Electrical Sections that the school ends the contract of staff or transfers them as a mean for taking action (Acad: median= 3, mean rank= 29.29, Elect median= 4, mean rank= 41.37, z= -2.550, p= 0.011, r= -0.31). In the second, the Electrical Sections believe more than the Academic Sections about the existence of Type Y in the school – the management assumes that the staff are self-motivated and need to be challenged and channelled, not controlled - (Acad: median= 3, mean rank= 28.21, Elect median= 4, mean rank= 39.57, z= -2.443, p= 0.014, r= -0.30).

- The Academic Sections differ from both the Electrical and Mechanical Sections in 1 belief related to the symbolism of space.

  Space allocation according to the Academic Sections is less based on the perceived importance of the job (Acad: median= 3, mean rank (m)= 31.89, z (m)= -3.252, p(m)= 0.001, r(m)= -0.37, mean rank (e)= 43.11, z (e)= -2.777, p(e)= 0.005, r(e)= -0.34 ; Mech: median= 4, mean rank= 48.10, Elect median= 4, mean rank= 43.11.

- The Electrical Sections differ from the Academic and Mechanical Sections in 1 Time orientation belief where the Electrical Sections believe more that the School thinks about the long-term and invest in it through research, training, and improving infrastructure (Elect: median= 4, mean rank (a)= 33.64, z(a)= -3.655, p(a)= 0.000; r(a)= -.045, mean rank (m)= 36.39, z(m)= -2.991, p(m)= 0.002, r(m)= -0.4, Acad: median= 2, mean rank= 28.12, Mech median= 2, mean rank= 23.40.

Therefore, the total number of differences between the Mechanical Sections and Electrical Sections is 6 differences, the total number of differences between the

Mechanical Sections and Academic Sections is 4, and the total number of differences between the Academic Sections and Electrical Sections is 4 differences. Being different from the pre-analysis, one can observe here that the differences are not specific to a type of section, but instead they are dispersed among the different types of sections.

The Control School post

- The Mechanical Sections differ from both the Academic and Electrical Sections in 2 beliefs; one related to Internal Integration and the other related to External Adaptation issues. For the internal integration related belief the Mechanical Sections believe more that the school rewards by financial rewards at the end of the year (Mech: median= 4, mean rank (a)= 22.59, z (a)= -3.086, p(a)= 0.001, r(a)= -0.51 , mean rank (e)= 17.80, z (e)= -2.587, p (e)= 0.008, r (e) = -0.47; Acad: median= 3, mean rank= 12.07, Elect median= 3, mean rank= 9.19). For the External Adaptation issue, the Mechanical Sections believe less than the Academic and Electrical Sections that the mission is based on the needs of the parents (Mech: median= 2, mean rank (a)= 13.29; z (a) = -3.303, p (a)= 0.001, r (a)= -0.57, mean rank (e) = 13.02, z (e)= -2.470, p (e)= 0.013, r (e)= -0.45, Acad: median= 3, mean rank= 24.31, Elect median= 4, mean rank= 21.28).

- The Academic Sections and the Mechanical Sections differ in 3 beliefs relating to Internal Integration, Space, and Human relationships dimensions. On the Internal Integration belief, the Mechanical Sections believe more than the Academic Sections that the school rewards by means of other tangible rewards such as a new desk, computer, etc (Mech: median= 3, mean rank= 22.20; Acad: median= 2, mean rank= 12.68, z= -2.745, p= 0.007, r= -0.46).

  On the Space belief, the Mechanical Sections believe more than the Academic Sections that the staff have allocated spaces that others do not share simultaneously (Mech: median= 4, mean rank= 21.21; Acad: median= 3, mean rank= 13.18, z= -2.364, p= , r= -0.4).

  On the human role relationship belief, the Mechanical Sections believe less that staff of the school view each other based on individualistic basis (Mech: median=1, mean rank= 14.84; Acad: median= 3, mean rank= 24.25, z= -2.775, p=0.006, r= -0.46.

- The Electrical Sections and the Academic Sections differ in one belief related to External Adaptation issues. The Electrical Sections believe less that staff in the school have defined areas of control in which to get the job done (Elect: median= 2, mean rank= 7.67, Acad median= 3.5, mean rank= 14.79, z= -2.526, p= 0.009, r= -0.53).

- The Mechanical Sections and the Electrical Sections differ in one belief related to the reality and truth dimension of which the Mechanical Sections believe less than the Electrical Sections that staff in the school act according to the information provided to them (Mech: median= 2, mean rank= 12.60; Elect: median= 4, mean rank= 21.31, z= -2.610, p= 0.009, r= -0.48).

Hence, there are 3 differences in beliefs between the Mechanical and Electrical Sections, 1 difference between the Electrical and Academic Sections, and 4 differences between the Mechanical and Electrical Sections.

Similar beliefs affected by the section type

A few beliefs in Table 30 above seem to be commonly affected by the section type (in *italic*) either when comparing both schools or comparing a school prior and post the implementation of the BSC. A further investigation into these beliefs was conducted using the Mann-Whitney test in appendix 3 to 1) to identify if the similarity is a result of the section type or the school, 2) to identify if the commonality in beliefs pre and post is due to non-change in beliefs of the different sections from pre to post.

Two beliefs are common between the school pre the implementation. These beliefs are found to be affected by the school rather than by the section type or specialisation.

Two beliefs are common in the Case School in the pre and post, which are found to be common not because of continuity of the belief of the respondents in the same section type.

Four beliefs are common in the Control School in the pre and post. Two of these beliefs are affected by the same section type in the post as in the pre, and the other two are not.

Moreover, a few other beliefs in Table 30 seem to be commonly affected by the section type for both schools in different times e.g. the belief "The school takes action against staff who can not control their classrooms" seem to be affected by the section type in the Control School post and in the Case School pre. However, when the researcher investigated these commonalities further he found no relationship between the beliefs and the section type.

7.6. Exploring differences between the Different Groups within the Different Sections

As explained in the quantitative data analysis section (section 4.8.2.2), Mann-Whitney is used to compare whether the different personal attributes (Nationality, Committee Membership, Age, Years Worked in the School, Always Worked in a School, Worked in other Technical Education Schools) effect the beliefs of the staff of the different sections.

This section aims at presenting how many beliefs are shared between the different individuals regardless of their personal background. It will discuss the number of beliefs affected at each stage; however the interested reader could view appendix 8 to 11 for the similarities and differences.

7.6.1. Prior To Implementing the Performance Measurement System

In the Case School, 3 attributes are found to affect the Academic Sections' beliefs, 4 attributes affect the Mechanical Sections' beliefs, and 3 attributes affect the Electrical Sections' beliefs. 5 or fewer differences in beliefs caused by an attribute were considered to happen by chance (type 1 error) and were ignored. Nationality and committee membership seem to influence the beliefs in all three different types of sections. Nationality has the most impact on beliefs. In total, it affects 24 beliefs, of which 6 of them are common between Electrical and Mechanical Sections, and another 3 are common between the Electrical and Academic Sections. For those beliefs that are common, staff from the same nationality agreed about the same belief across the different sections.

In the Control School, 1 personal attributes seemed to influence the Academic Sections' beliefs, no attributes affected the Mechanical Sections' beliefs, and 4 attributes affected the Electrical Sections' beliefs. The attribute "Worked in other Technical Education Schools" was the only attribute that influenced both Academic and Electrical Sections where 8 beliefs were affected, with 2 of them being common for Academic and Electrical Sections. Again for those beliefs that were common, staff who worked in other Technical Education Schools agreed about the same belief across the different sections.

Appendix 8, lists 67 cultural beliefs of the original 101 beliefs that seemed to be affected by the personal attributes (before removing/ignoring the beliefs that suffer from type 1 error). Of the 67 beliefs, 8 suffered from type 1 error, therefore reducing the number of cultural beliefs that were affected by personal attributes to 59 beliefs. Of the 8 beliefs that suffer from type 1 error, 1 belief in *italic* was found to be influenced by the type of section ("The School rewards by giving gratitude certificate" as shown in Table 30) i.e. bringing the total that were influenced by either the section type or personal attributes in appendix 8 to 60 beliefs (52 affected by personal attributes only, 7 affected by both personal attributes and type of sections, and 1 affected by the type of section only). Therefore, the total number of beliefs that were influenced by personal attributes (Appendix 8) and type of section (Table 30) was 52+14=66 beliefs. Therefore, one can conclude that the different section types and groups within them share similar beliefs in 35 cultural beliefs (see Table 31 below). It could be either a consensus in the 35 beliefs (or just some of them) or diversity in beliefs between the different groups within the different types of sections. However, there are disagreements in the remaining 66 beliefs indicating that the school has fragmented subcultures where their members agree on few beliefs or on a single belief. The beliefs that were affected by the personal attributes are in **bold** in appendix 8.

In a similar manner to appendix 8, appendix 9 lists 51 cultural beliefs of the original 101 beliefs that seemed to be affected by the personal attributes (before removing/ignoring the beliefs that suffer from type 1 error). Of the 51 beliefs, 17 suffered from type 1 error, therefore reducing the number of cultural beliefs that were affected by personal attributes to 34 beliefs (28 affected only by personal attributes, and 6 affected by both personal attributes and type of section). Therefore, the total number of beliefs that were influenced by personal attributes (appendix 9) and type of section (Table 30) is 28+15=43 beliefs.

Therefore, one can conclude that the different section types and groups within them share similar beliefs in 58 cultural beliefs (see Table 31 below). It could be either a consensus in the 58 beliefs (or just some of them) or diversity in beliefs between the different groups within the different types of sections. However, there are disagreements in 43 beliefs indicating that the school has fragmented subcultures where their members agree on a few beliefs or on a single belief. The beliefs that are affected by the personal attributes are in **bold** in appendix 9.

From the previous two paragraphs, one can conclude that the Control School has a stronger culture (58 beliefs are not affected by any personal attributes) than the Case School (only 38 beliefs are not affected by any personal attributes).

Note that this conclusion covers Heads of Sections, and Teachers occupational levels only and does not take into account the Strategic Apex, Techno-element and Support staff, which were not included due to lack of significantly enough samples to make a statistical conclusion.

7.6.2. Post Implementing the Performance Measurement System

Appendix 10 shows the 56 cultural beliefs affected by personal attributes (in **bold**) in the Case School post the implementation of the BSC. Of the 56 beliefs, 10 beliefs are also affected by the section type (in ***bold and italics***). 2 other beliefs are affected by the section type only "In the school the management assumes that the staff are self-motivated and need to be challenged and channelled, not controlled" and "People (management, teachers, staff) in the school view each other in a very particularistic way as whole person", which the second is *italicised* in appendix 10. Therefore, the total number of beliefs either affected by personal attributes or section type is 101 – (56+2) = 43 beliefs. The beliefs that are not affected are shown in Table 31.

Appendix 11 shows 65 beliefs that are affected by the personal attributes (in **bold**) in the Control School. Of the 65 beliefs, 9 beliefs are affected also by the section type (***bold*** and ***italicised***). One other belief (*italicised*) is affected by the section type "Work to me is a higher priority in comparison to myself-interests". Therefore, the total number of cultural beliefs affected by the personal attributes and section type is 65 + 1 = 66 beliefs and the total number of beliefs that are not affected is 101 – 66 = 35 beliefs. The beliefs that are neither affected by the personal attributes or the section type are listed in Table 31.

7.7. Comparing Beliefs across the different Occupational Levels

This section shows the number of beliefs that are shared (integrated), differentiated, or fragmented among the different occupational groups. The findings presented here are based on descriptive statistics rather than inferential ones as the number of respondents in some groups is small (Table 14).

Table 31 presents all the beliefs studied and indicates with (√) those beliefs that are shared among the different occupational groups. Appendix 12 presents in detail the analysis findings, but here the researcher suffices with shedding light on the key changes following the introduction of the Performance Measurement System in the schools:

Case School

- Increase in the number of beliefs that are commonly shared by all occupational levels from 45 beliefs in pre to 53 beliefs in post.
- Decrease in the opposing beliefs from 44 beliefs in pre to 27 beliefs in post.

Control School

- Decrease in the beliefs that are commonly shared from 63 to 59 beliefs.
- Slight increase in the differentiated and fragmented beliefs.

In addition to Table 31 presenting the beliefs affected by the functional groups it also synthesises all the comparison findings of the impact of the section type and personal attributes. The key observation from the synthesis is that there is an increase in the number of beliefs in the Case School that are not affected, which indicates an increase in integration. The Control School on the other hand did not maintain its previous level of integration. In fact, it has worsened due to the differences caused by personal attributes of which the mechanical sections suffered the most as was explained in the previous section also in appendix 11.

Cultural Dimensions and Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
Assumptions about External Adaptation Issues																
Mission																
Mission of the school is based upon meeting the needs of the students				√				√				√		√		
Mission of the school is based upon meeting the needs of the Ministry of Education		√						√				√		√		
Mission of the school is based upon meeting the needs of the parents		√	√			√						√	√	√	√	
Mission of the school is based upon meeting the needs of other governmental departments	√	√	√			√	√			√	√					√
Mission of the school is based upon meeting the needs of labour market			√			√					√					√
Mission of the school is based upon meeting the needs of universities			√			√	√				√				√	
Mission of the school is based upon the school's core competence and what it can offer the society		√	√			√	√				√				√	
Means of getting work done																
In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me		√				√	√		√		√		√	√	√	
In the school, no one has a defined area of control such as subordinates, budget, physical space, or any other resources			√			√	√				√				√	
If I have a defined area of control, I would be insulted to be given advice in that area		√			√	√						√			√	
Means of Staff Performance Measurement																
The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis		√	√					√				√		√		

Cultural Dimensions and Beliefs	Case School Pre: Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Case School Post: Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Control School Pre: Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Control School Post: Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
The management of the school in assessing (evaluating) the staff focuses on soft evidence e.g. walking around and talking to people		√	√			√				√	√			√	√	
Gathering Information about Performance Mechanism																
The school conducts formal research to know its performance		√					√			√	√				√	
The management of the school senses from different sources e.g. being told by a stakeholder or observing trends in the society to know the performance of the school			√				√				√				√	
Assumptions about Internal Integration Issues																
Common Language																
The vocabulary people in the school use to communicate (e.g. terms, humour, procedures e.g. rewards, punishment) with each other leads to a lot of misunderstanding				√				√				√			√	
Groups																
The school has groups in which outsiders are treated with hostility or indifference whereas insiders become privy to some more secret assumptions			√		√	√				√						√
Influence and Power																
Influence, control and authority in the school is based on Personal characteristics and track records e.g. ability to negotiate, survive with your ideas, convince		√					√		√							√
Influence, control and authority in the school is based on Formal rank and job description			√			√				√						√
Influence, control and authority in the school is based on the network of support and alliances	√	√	√				√			√	√			√	√	
Influence, control and authority in the school is based on expertise and knowledge			√					√		√						√
Influence, control and authority in the school is based on access and control of		√				√						√	√	√		

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| | Case School | | | | | | | | Control School | | | | | | | |
| | Pre | | | | Post | | | | Pre | | | | Post | | | |
Cultural Dimensions and Beliefs	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
agendas																
Influence, control and authority in the school is based on control of rewards			√					√		√					√	
Influence, control and authority in the school is based on ability to coerce, block, interfere, or punish		√						√		√						√
Formal Rank																
Formal rank in the school is based on personal background e.g. family		√						√				√		√	√	
Formal rank in the school is based on education credential		√				√			√	√	√			√	√	
Formal rank in the school is based on loyalty	√	√						√				√		√	√	
Rewards for																
Rewards either tangible or intangible in the school are given for loyalty		√				√	√				√				√	
Rewards either tangible or intangible in the school are given for successful performance of whatever jobs were allocated by higher authority		√	√				√					√		√		
Rewards either tangible or intangible in the school are given for demonstrating high performance in the main job			√					√				√		√		
Rewards either tangible or intangible in the school are given for doing jobs other than the main job			√			√						√				√
Rewards either tangible or intangible in the school are given for adhering to the school's procedures		√				√	√			√	√			√	√	
Rewards either tangible or intangible in the school are given for adhering to the employment regulations either set by the ministry of education of civil service bureau		√					√			√	√			√		
Rewards by																
The school rewards by the financial incentive at the end of the year		√	√					√	√		√		√	√	√	

	Case School								Control School							
Cultural Dimensions and Beliefs	Pre				Post				Pre				Post			
	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
The school rewards by other tangible rewards e.g. desk, computer, resources		√			√	√			√				√	√		
The school rewards by promotion to a higher ranked position			√					√		√				√	√	
The school rewards by giving gratitude certificate	√					√				√				√		
The school rewards by verbal thanking		√				√	√			√	√			√		
The school rewards by nomination to attend a course or join a committee outside the school	√	√	√				√					√			√	
The school rewards by other forms of intangible rewards e.g. bigger project, asked to join a committee in the school or to participate in an activity, etc			√		√	√						√		√		
Action for																
The school takes action against staff who break the employment regulations either set by the ministry of education or civil service bureau				√		√						√				√
The school takes action against staff who break the school's procedures		√				√			√							√
The school takes action against staff who can not control their classrooms	√	√	√			√				√			√	√		
The school takes action against staff who does not achieve high performance in their main area		√				√				√	√			√		
The school takes action against staff who does not accomplish whatever jobs were allocated to the person by higher authority		√						√	√							√
The school takes action against staff who does not meet specified targets		√				√						√				√
Action by																
When action is taken against a member of staff, the school gives a warning letter				√		√						√				√
When action is taken against a member of staff, the school admonishes the member of staff				√		√	√			√	√			√	√	
When action is taken against a member of staff, the school halts in position			√					√		√						√

Cultural Dimensions and Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
When action is taken against a member of staff, the school deprives the staff from projects and important tasks		√				√	√					√				√
When action is taken against a member of staff, the school ends the contract of the staff or transfer him to another school		√			√	√				√						√
Norms of Intimacy																
Relationships in the school are friendship and familial relationships		√	√					√		√					√	
Relationships in the school are mainly work relationships		√	√				√				√		√	√		
Assumptions about Space and Time																
a. Assumptions about Space																
Distance and Relative Placement																
Managers in the school have an open-door policy	√		√		√	√	√			√	√				√	
Staff are allocated working spaces that others do not share simultaneously		√	√				√					√	√	√	√	
The Symbolic of Space																
Space allocation to staff symbolises status, position, or power			√				√					√			√	
Space allocation to staff symbolises perceived importance of the job		√			√	√			√	√					√	
Space allocation to staff symbolises the needs of the job					√			√		√					√	
The Symbolic of Resources																
Resource allocation to staff symbolises status, position, or power		√					√					√			√	
Resource allocation to staff symbolises perceived importance of the job		√					√		√						√	
Resource allocation to staff symbolises the needs of the job								√				√			√	
Body Language																

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| | Case School | | | | | | | | Control School | | | | | | | |
| | Pre | | | | Post | | | | Pre | | | | Post | | | |
Cultural Dimensions and Beliefs	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you	√		√			√			√	√	√			√		
In the school dressing style reflects position, power, and status		√	√				√					√			√	
b. Assumptions about Time																
Time Orientation																
The people in the school are living in the past reflecting on the good old days assuming things worked out then and must be good enough to work now and in the future			√				√					√			√	
The people in the school worry only about how to get the immediate tasks done			√				√			√						√
The people in the school worry mostly about the near future e.g. mid-term results or end of term results			√					√			√				√	
The people in the school worry about the long-term e.g. by investing heavily in research and development, training, infrastructure, etc		√	√		√	√						√			√	
Monochronic and Polychronic Time																
In the school, time is divided into slots where only one task is performed at a time		√	√			√	√				√			√	√	
In the school, the emphasis is placed on what has been accomplished within a phase e.g. semester, month, a year rather than short time slots		√	√			√	√				√			√	√	
Planning Time and Development Time																
In the school, time for accomplishing things is tied to targets, milestones, or deadlines which are specified in advance and related to external deadlines like labour market needs			√			√				√				√	√	
In the school, time for developing and accomplishing tasks is characterised by "things will take as long as they will take" as things can not be speeded up or slowed down	√	√	√				√		√						√	

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Cultural Dimensions and Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
Temporal Symmetry and Pacing																
In the school, I need to collaborate and work with other staff who work at different time pace from mine			√			√						√		√	√	
Assumptions about Reality and Truth																
Physical Reality																
If there is a disagreement between two teachers (staff) about the accuracy of a machine/equipment, they will resolve the disagreement by testing the machine/equipment			√				√				√			√	√	
Social Reality																
If a decision is to be made and there is a disagreement between two options, the most experienced person will decide on the best option		√	√			√	√				√			√		
If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority vote	√	√	√				√				√			√	√	
If a decision is to be made and there is a disagreement between two options, the person with the highest authority will decide		√	√			√	√					√		√	√	
Individual Reality																
I trust elder-statesmen experiences in the school	√	√	√			√	√					√		√		
I do not trust anyone experience in the school unless it (the argument) is proven to me			√				√				√				√	
Moralism and Pragmatism																
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Why do we need to change! It has always been done this way"			√				√				√			√	√	
When the way of doing a specific thing e.g. teaching at the board with chalk is		√				√	√					√		√		

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Cultural Dimensions and Beliefs	Case School Pre				Case School Post				Control School Pre				Control School Post			
	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
questioned and a new approach is proposed, the attitude you take is "Our headmaster/head of section wants to do it this way"																
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "This decision belongs to the curriculum department, other departments or committees"		√	√			√	√					√		√		
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "We debated the new approach, committees studied it, and the approach is still sound, so we will do it"				√			√				√			√		
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Let's try it out this way (i.e. the new approach) and evaluate how we are doing"			√			√						√		√		
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our research shows that this new approach is the right way to do it"		√						√				√		√		
What is Information?																
The information I provide other functional groups are fully understood	√		√				√					√				√
Other functional groups act exactly according to the information I provide them			√		√		√			√			√	√		
Assumptions about Human Nature, Activity, and Relationships																
Nature of Human Nature (Theory X, Theory Y, and Theory Z)																
In the school the management assumes that the staff are lazy and must therefore be motivated with economic incentives and controlled by constant surveillance		√	√		√	√	√					√		√	√	
In the school the management assumes that the staff are self-motivated and need to be challenged and channelled, not controlled			√		√				√	√				√	√	

Cultural Dimensions and Beliefs	Case School Pre				Case School Post				Control School Pre				Control School Post			
	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
In the school the management assumes that the staff are motivated by the need to relate well to their peers and membership groups		√					√				√			√		
In the school the management assumes that the staff are difficult to manage as they always adapt in relation to what they have been told		√						√	√	√					√	
Appropriate Human Activity																
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do something about them"			√			√						√				√
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them and have to live with it"		√				√						√				√
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them now, but we will develop ourselves to deal with the situation"		√	√					√			√				√	
Individualism and Groupism																
In the school, if a group/committee worked on a project, the group will present their achievement as a group		√	√			√	√					√		√	√	
In the school, if a group/committee worked on a project, each member tries to outshine others by showing his own accomplishment			√			√					√			√		
Power Distance																
If I have an issue or idea I can go straight to the management of the school to talk to them about it		√	√			√	√			√					√	
Basic Characteristics of Role Relationships																
People (management, teachers, staff) in the school view each other based on stereotypes e.g. on job type, religion, nationality, etc	√							√			√			√		

Cultural Dimensions and Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected	Affected by Section Type	Personal Attributes	Occupational Level	Not Affected
People (management, teachers, staff)in the school view each other in a very particularistic way as whole person	√	√	√		√					√	√		√	√	√	
Social rewards such as status, task and project allocation are assigned on the basis of the person's background, family, religion, nationality, etc.				√		√	√					√		√	√	
Social rewards such as status, task and project allocation are assigned on the basis of the person's accomplishments		√	√			√	√		√		√			√		
Activity Orientation																
Work to me is a higher priority in comparison to my family or having a family		√	√			√	√			√	√			√	√	
Work to me is a higher priority in comparison to myself-interests			√		√	√	√		√	√	√		√			
Total	14	59	56	14	12	55	48	22	15	34	38	38	10	65	42	20

Table 31: Summary of the beliefs affected and not affected by Section Type, Personal Attitude, and Occupational Level

7.8. Conclusion

Statistically, the researcher can assert that there is an increase in the number of beliefs that are not affected by the functional area, background, or occupational level of staff. This in effect leads to the conclusion that the culture of the Case School has strengthened and become an integrated culture.

Both the descriptive and statistical evidence also suggests the culture has changed as follows:

1. Result/target oriented as the school conducts formal and objective research to know its performance (see pages 217, 220 and 239).
2. Rewards and punishment linked to performance in one's area (see pages 217, 220, 240, 386 and 387).
3. Resource distribution symbolises the needs of the job (see pages 242 and 389).
4. Closeness and groupism as managers show more happiness in meeting staff, and staff who work on projects present their achievements as groups (see pages 218 and 220).
5. Consideration for more key stakeholders (see pages 210 and 384).
6. Concern primarily for students elicited from mission, goals, and staff performance criteria (see pages 210 and 401 to 417).
7. Initiative for objective continuous improvement elicited from changes in goals and means of measuring performance measurement (see pages 210 and 401 to 417).
8. Pragmatism in making decisions through the use of researches and taking expert's opinion on board (see page 245).
9. Staff become more of self-motivated (see page 392) and an increase of work status to staff in comparison to their self-interests (see page 393).

This chapter has presented the findings from the questionnaires and chapter five presented the qualitative findings. Both chapters showed that following the introduction of the performance measurement system the school has become more focused on the needs of students and more objective and result oriented. It has also increased motivation and eagerness for improvement, etc. The next chapter will bring together

the different findings (qualitative and quantitative) and will link them to the different measures implemented in the school. It will compare the synthesised findings of the changes observed in the case with those observed in the Control School. Moreover, it will reflect on the conclusion in the light of the existing literature on the topic.

8. Discussion Chapter

"Questions (Concerning strategic alignment with objectives) can only be answered by analysing the activities that are needed to attain objectives" Peter Drucker in Lawson et al. (2003; 26)

8.1. Introduction

This research was set to investigate whether organisational culture would change with the introduction of a performance measurement system (PMS). It aimed at answering the following research questions:

1. How would introducing a performance measurement system impact on organisational culture?

2. What culture manifestations (practices and forms) and basic assumptions (cultural themes) would change by the introduction of a performance measurement system?

3. To what degree would the culture manifestations and basic assumptions change?

4. What lessons for practice can be learnt from developing and deploying the Performance Measurement System in a government department in the Middle East.

A unique methodology was used in this exploratory research; quasi-experiment and action research methodology. The cultures of two schools were studied prior to introducing a performance measurement system in one of the schools. Almost 18 months after introducing the performance measurement system in the Case School the culture in both schools was examined again. Forty interviews were conducted in total; twenty interviews in each school between the pre and post stages. Questionnaires based on Schein (2004) understanding of culture were administered following each stage of interviews. The interviews were analysed using theme analysis and the questionnaires were analysed statistically using Mann-Whitney and Kruskal-Wallis and descriptively. Chapter 7 presented the quantitative findings from the case and Control Schools pre and post introducing the PMS whereas chapter 6 presented the qualitative

findings. There were differences found between the culture of the Case School and the Control School. However, these findings were presented earlier in isolation from each other. This chapter looks at affirming the interview findings by comparing them with the questionnaire findings. It then visits the classifications of intended and unintended impacts and synthesises the findings of this research into the matrix. The chapter then discusses whether other performance measurement frameworks would yield the same results obtained using the (adapted) Balanced Scorecard. Moreover, it will reflect on the introduction of the Balanced Scorecard in the school, dividing it into factors relating to the development of the Balanced Scorecard, creating the PM Team and drivers for the implementation and use. Finally, the chapter discusses the limitations of this research and identifies future research areas.

8.2. Answers to research questions 1, 2 and 3

The main conclusion (*answer to question 1*) from this research points out that implementing a performance measurement system in an organisation creates a stronger culture (integrated) that is characterised by a wide consensus and consistency in both behaviour and values.

Figure 31 in chapter 6 shows how the main cultural themes in the Case School became shared after introducing the performance measurement system in the Case School specifically, Concern for Students, Transparency, Fairness, Appreciation and Motivation and Family and Bringing Staff Together. Moreover, Development and Improvement, Accountability, Autonomy and Concern for Staff are shared by almost all groups.

Integration of the culture was also observed in the questionnaire findings. The statistical analysis showed that the number of beliefs affected by Personal Attributes such as nationality, age, number of years worked in school, membership of committees, etc (see section 7.6), Section Type (see section 7.5), and Occupational Level (see section 7.7) reduced to a total of 79 from 87 beliefs in the pre.

The next sub-sections answer the research questions in particular *question 2 and 3*. As the answers are interlaced, they will be discussed in themes (as introduced in the interviews findings). Values and beliefs (interviews and questionnaire findings), and manifestations such as espoused values, practices and forms (interviews, questionnaire findings, and Performance Measures) will be embedded in the

discussion of the theme. Only the main themes that emerged or changed and were discussed in the qualitative findings chapter will be discussed here.

The figures presented in this section synthesise the key changes observed in the interview findings from pre to post, values and beliefs that confirm them from the questionnaire findings and the KPIs that are believed to have led to the changes. Figure 52 below provides the key for Figure 53 to Figure 65.

Figure 52: Key of the Themes Synthesis
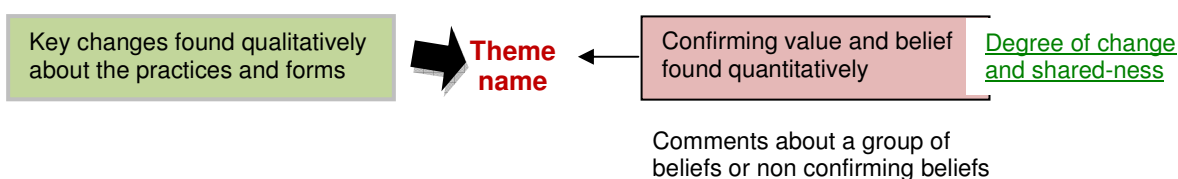
8.2.1. Concern for Students

Concern for students strengthened and became shared across all the occupational groups interviewed. Opposing beliefs and ambiguity around the theme reduced as a result, too (Figure 30 and Figure 31 in interview findings). In the Control School the theme also strengthened, but not to the same extent. Confirming the findings of the interviews, the beliefs related to concern for students in the questionnaire (and are different from the Control School) are presented in the figure below in red. The questionnaire findings show that there is consensus on the goals of the school by all the different occupational groups. Mission is based on students needs and also shared by all. Rewards for, and action by, changed and are related to work done for students. Staff psychological contracts are geared towards improving student outcomes and are aligned with the same performance measures used by the school to evaluate them. These changes which occurred in the Case School could be linked easily to the performance measures set (see the figure below for performance measures related to changes in the concern for students theme).

The improvement in this theme and other themes like concern for staff and familial relationship (shown in Figure 31) are signs of strategic alignment and having unified

language throughout the school as they were part of the school's strategic goals (given in chapter 5 – Design of Performance Measurement System). The findings also show that the culture of the school became more integrated as more groups shared common beliefs.

8.2.2. Fairness

Manifestations related to this theme are mainly about assignment of jobs, influence, rewards and punishment. The theme strengthened in both schools. In fact, in the Control School the theme is more salient than in the Case School. However, the key difference between them is that the theme both qualitatively and quantitatively (descriptively and statistically based on the beliefs used in the questionnaire) is shared among the staff of the Case School whereas not in the Control School. This finding also confirms the integration and consensus observed in the Concern for Students theme. In the Control School confusion about the theme and different belief statements in the questionnaire exists.

This change in culture is linked also to the Case School's strategy in particular "Applying healthy and clear system of incentives and motivation" and as part of monitoring this goal the school developed a questionnaire for staff, which is shown in appendix 15.

This also confirms that performance measures assisted in achieving the goals they were set to measure.

Structural changes
- Performance measurement committee
- HoS deals with students behavioural issues
- Teachers to supervise at section gate
- Discipline committee   • Technical committee split
- Student committee   • Talented students committee
- Industrial training committee

Formal Practices
- Attendance is emphasised
- Monitoring performance and diagnosing the situation
- Rewarding those who improve attainment
- Controlling the classroom is a must
- School management requested HoS not to leave their students even if they were called by a higher person
- Checklist for measuring staff performance
- Analysis of exam results to be used in planning
- Listening to students complaints
- Rewards for improving the students attainment
- Punishment is given for who don't teach properly
- Open day was moved to be held in sections

Informal Practices
- Football league

Physical Arrangements
- Educational support hall for teaching using simulators and self-learning
- Gardens   • Water filters
- New toilets   • Replacement of entrance decoration

Concern for Students

Consensus on goals:
- develop the students' knowledge and skills to satisfy the requirements of the labour market,
- develop the students to be good citizens, and
- develop the quality of the educational process

Mission of the school is based on meeting the needs of students   +ve range, shared by all

Rewards are given for:
- high performance in the main job,
- adhering to the employment regulations

+ve mode, affected by OL
+ ve mode, affected by PA

Actions against staff are given for:
- breaking the employment regulations and the school's procedures,
- not achieving high performance in main area,
- not meeting specified targets

+ve range, shared by all
+ ve mode & range, affected by OL
+ve mode & range, affected by PA

Actual staff performance measures are:
- teaching and Interaction with the students,
- students' results, and
- accomplishing whatever jobs by higher authority

Agreement between actual and aspired performance measures indicate alignment between the organisation and staff

Aspired staff performance measures are:
- teaching and Interaction with the students,
- accomplishing whatever jobs by higher authority, and
- education, knowledge and experience

- (Number of students in employment in related areas to their school study / total number of graduates) * 100
- (Number of students in further and higher education with an average over 2 / total numb
- ((Student average at the end of current semester – student average at the end of last semester) / student average at the end of last semester) * 100
- (Number of students satisfied with their teachers encouragement / total number of students) * 100
- (Number of teachers satisfied with the students behaviours and attitude / total number of teachers) * 100
- Image survey
- (Number of students involved in sport activities / total number of sport activities) * 100
- (Number of plans based on analysis of evaluation results / total number of plans) * 100
- (Number of dirty classrooms and premises / total number of classrooms and premises) * 100
- (Number of aids relevant to the values the school intends to spread / total number of aids) * 100
- Number of aesthetics additions

- (Number of staff satisfied with follow-up to students behavioural, social and psychological problems / total number of staff) *100
- (Number of use of each method / total number of uses) * 100
- (Number of students satisfied with each method / total number of students) * 100
- (Number of students satisfied with the teaching methods / total number of students) * 100
- (Number of students satisfied with formative evaluation / total number of students) * 100
- (Number of students satisfied with the level and type of home-work / total number of students) * 100
- (Number of students satisfied with activities, relationships, participation, dialogues in classroom / total number of students) * 100
- (Number of student satisfied with the school environment / total number of students) * 100
- (Number of uses per source "measured in periods" / total number of periods of subject or course) * 100
- Continuous and regular inspection to the health and safety procedures and facilities in the school

Figure 53: Concern for Students Impacted by PM - Case School

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Structural changes
- Talented students committee
- Disabled students follow-up committee.

Formal Practices
- Complete record for each student.
- Roles of Social and Admin guides were clarified.
- Roles of HoSs clarified.
- Schedule for training (new) teachers.
- Advertisements for students to join committee
- Punishment for going to classes late.
- The school magazine.

Informal Practices
- Deputy Headmaster talks to students to encourage them to raise their issues.
- School provide free remedial classes to students from poor background.
- Deputy Headmaster admonishes students.

Physical Arrangements
- The school's name is written on the students' uniform.

Rituals
- Students' induction day
- School invites distinguished students in end of year ceremony.
- The school management meets HoSs weekly.

Concern for Students

Multiple goals the most common are:
- develop the students' knowledge and skills to satisfy the requirements of the labour market,
- improve the students' educational and practical skills, and
- accomplish the goals of the local community

Rewards are given for adhering to the employment regulations

Punishment is given equally to all reasons

Dispersed actual staff performance measures, the common are:
- teaching and Interaction with the students,
- jobs accomplished for the school management, and
- students' results

No agreement between actual and aspired performance measures indicating lack of alignment between the organisation and staff

Aspired staff performance measures are:
- teaching and Interaction with the students,
- students' results and equally Education,
- knowledge and experience

Figure 54: Concern for Students - Control School

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Structural changes
- Meritocratic Assignment in committees and management board; experience, accomplishments, and performance.
- Any member of staff can nominate themselves to join committees.
- Incentives committee.

Formal Practices
- HoS sections evaluate their teachers
- Sections are evaluated through their added value to the students and are linked to performance data.
- No of incentives are given to sections is given relative to their size.
- Action is taken against staff who come late or leave early.
- Evaluation from multiple facets
- Evaluation by students results, attendance, students questionnaire, feedback from peer staff, evaluation by MoE personnel.
- Standardised mechanism for evaluating sections
- Rewards and rewarding through clear written criteria

Fairness

Statement	Mode
Influence, control and authority in the school is based on expertise and knowledge.	+ve mode, shared by all
The school rewards by the financial incentive at the end of the year	+ve mode, shared by all
Formal rank in the school is not based on personal background e.g. family	Shared by all
Formal rank in the school is usually based on loyalty.	+ve mode, shared by all
Rewards either tangible or intangible in the school are given for demonstrating high performance in the main job.	+ve mode, shared by all
The school rewards somewhat by promotion to a higher ranked position	Shared by all
The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis.	+ve mode, shared by all
Resource allocation to staff symbolises the needs of the job	+ve mode, shared by all

- All influence statements are not affected by any attribute which indicate fairness

- Equity in rewards for indicates evaluation from multiple facets for evaluation

- Action against staff are affected primarily by personal attributes in particular "committee membership", which could indicate fairness as staff who joined committees understand the reasons better than others

- (Number of staff satisfied with the distribution of incentives / total number of staff) * 100
- (Number of staff satisfied with social and work relationships / total number of staff) * 100
- Number of transfers from the school
- Number of transfers to the school
- ((Student average at the end of current semester – student average at the end of last semester) / student average at the end of last semester) * 100
- (Number of students satisfied with their teachers encouragement / total number of students) * 100
- (Number of dirty classrooms and premises / total number of classrooms and premises) * 100

- (Number of aids relevant to the values the school intends to spread / total number of aids) * 100
- Number of aesthetics additions
- (Number of students satisfied with the teaching methods / total number of students) * 100
- (Number of students satisfied with formative evaluation methods/total number of students) * 100
- (Number of students satisfied/total number of students) * 100
- (Number of students satisfied with activities, relationships, participation, dialogues / total number of students) * 100

Figure 55: Fairness Impacted by PM - Case School

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8.2.3. Accountability

In accordance with the interview findings, beliefs regarding objective performance evaluation strengthened, particularly in evaluating the staff performance (mode= 5) and in assessing the school performance where statistical difference was found using the Mann-Whitney analysis. Moreover, the findings from the questionnaire confirm that rewards were given to staff who achieved their set target in improving the students' outcomes (mode=4) and to those who adhered to the employment regulations (mode=4). In Accountability, action against staff who did not achieve their specified targets has shown statistical and descriptive change (mode=4).

In the Control School, neither the same forms nor practices that were evident in the Case School were mentioned in relation to accountability.

This increase in the degree of accountability was reported as an impact/purpose of performance measures by Wisniewski in Scotland (1998).

8.2.4. Autonomy

Autonomy is the forth salient theme in the Case School whereas it is the third in the Control School. Congruent with the interview findings there was a change in the degree of influence based on expertise and knowledge in the questionnaire findings. Moreover, there was a decrease in centrality in decision making. Nonetheless, other findings were not confirmed. One reason could be because the performance measures that could lead to this theme are few in the school.

Structural changes
- Management board is elected.

Formal Practices
- Evaluation from multiple facets.
- HoSs sit with the students to evaluate their teachers.
- Any member of staff can nominate themselves to join committees.
- Staff are questioned about their slackness.
- Gratitude certificates to all staff worked hard.
- Evidence required for all work.
- Action is taken against staff who come late or leave early.
- Work description were distributed to all staff.
- Criteria for incentives were distributed to staff.

Informal Practices
- Better evaluation for staff who worked in committees.

Stories
- Argument between a mechanical teacher and an academic teacher.
- Teacher hit a student in the classroom.
- Student caught cheating.
- Distinguished teacher in maths rewarded by the Prime Minister.

Jargon
- Distinguished teacher.

Fairness

Influence, control and authority in the school is based on network of support and alliances. — -ve mode, affected by PA & OL

Action against staff is mainly by warning letters and admonishment — Mostly shared by all

Formal rank in the school is not based on personal background e.g. family — Affected by PA & OL

Formal rank in the school is often based on loyalty. — Affected by PA & OL

The management of the school in assessing (evaluating) the staff focuses on soft evidence e.g. walking around and talking to people — Affected by PA & OL

The school rewards somewhat by promotion to a higher ranked position — Shared by all

The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis. — -ve mode, affected by PA

- Influence and power are mostly not effected by any attribute indicating fairness

- Equity in rewards for indicates evaluation from multiple facets for evaluation

- Action against staff are taken against staff equally and usually for all types of infringements and mostly in not effected by any attribute

Figure 56: Fairness - Control School

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Structural changes
- Technical committee was split.
- Performance management committee was created.

Formal Practices
- Signature for acknowledgement of decrees
- Attainment committee visits sections
- Technical committee studies sections plans and follow them up.
- Sections are evaluated by their achievements to their plans and follow up from the management (MBO).
- Results and performance data are analysed and discussed in management meetings.
- Student questionnaire is used in evaluation.
- Responses to exams questions are analysed.
- Under performing head of committees are asked to leave.
- Questionnaire for staff about the school administration
- Folders for staff accomplishments and failures.
- Work duties were distributed to all staff
- Using performance indicators.

Physical Arrangements
- Dedicating a working space for the financial supervisor.

Accountability

The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis — +ve mode, shared by all

The school conducts formal research to know its performance — +ve mode

Rewards either tangible or intangible in the school are given for demonstrating high performance in the main job — +ve mode, shared by all

Rewards either tangible or intangible in the school are given for adhering to the employment regulations either set by the ministry of education of civil service bureau — +ve mode

The school takes action against staff who does not meet specified targets — +ve mode, +ve range

When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "We debated the new approach, committees studied it, and the approach is still sound, so we will do it"

- "Space allocation to staff symbolises the needs of the job." Doesn't confirm the Financial Administrator story for accountability

- 'When action is taken against a member of staff, the school deprives the staff from projects and important tasks." Doesn't confirm Autonomy – Doesn't confirm what was stated in the interviews about removing the head of committee (may be because it is a rare thing). But, this indicate concern for staff feelings (if this is the case there is inconsistency between the different themes (Accountability and Concern for staff) they don't go so much together or they go together with governing rules.

- Staff, stakeholders (parents, other schools, etc) satisfied with communication/ total number
- (Number of pioneered projects achieving xx% in evaluation/total number of projects) * 100
- Difference in % between performance level after training and before training
- (Number of students satisfied with the teaching methods / total number of students) * 100
- (Number of students satisfied/total number of students) * 100

- (Number of students satisfied with the level and type of home-work / total number of students) * 100
- (Number of students satisfied with activities, relationships, participation, dialogues / total number of students) * 100
- (Number of student satisfied with the school environment / total number of students) * 100
- (Number of staff satisfied with the school environment / total number of students) * 100(balance / budget allocated) * 100

Figure 57: Accountability Impacted by PM - Case School

Structural changes
- Committees follow-up committee.

Formal Practices
- Report sent monthly to each member of staff about their attendance.
- Signature for acknowledgement of decrees
- Sections are evaluated by their achievements to their plans and follow up from the management (MBO).
- Questioning about weak students' results.
- Responses to exams questions are analysed.

Accountability is less shared theme in the post assessment (shared by 4 groups) as compared to pre (5 groups)

Accountability

"Rewards either tangible or intangible in the school are given for adhering to the employment regulations either set by the ministry of education of civil service bureau." — +ve mode, affected by PA

"The school conducts formal research to know its performance" — Affected by PA

"The management of the school senses from different sources e.g. being told by a stakeholder or observing trends in the society to know the performance of the school" — Affected by PA

"The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis" — Affected by PA

"The school takes action against staff who does not meet specified targets" — +ve mode, shared by all

"The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis." Accountability reduced. — -ve mode, affected by PA

"The school takes action against staff who break the employment regulations either set by the ministry of education or civil service bureau." Accountability reduced — -ve mode, shared by all

Figure 58: Accountability - Control School

Espoused Values
- Every HoS is a manager in his section

Structural changes
- HoSs are communication link with the management.

Formal Practices
- Sections set their own plans (management by objectives).
- HoSs analyse their data from exams and from surveys.
- HoSs nominate teachers for incentives.
- Staff join committees willingly.
- Nominees of committees decide who should be members if number exceeds the set limit.
- Committee members decide who should lead.
- Committee members approach experienced staff to join their committee.

Physical Arrangements
- Dedicated working space for the financial supervisor.
- Sections organise their workshops and layout of machinery.

Rituals
- Every section prepares courses for his staff.

Autonomy

Influence, control and authority in the school is based on expertise and knowledge. Goes inline with what Autonomy in particular employing staff to join committees who have experience

+ve mode, shared by all

If a decision is to be made and there is a disagreement between two options, the person with the highest authority will decide. Also there is reduction in centrality, which also could highlight autonomy

-ve mode

- "In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me." Autonomy did not increase as claimed in interviews

- "When action is taken against a member of staff, the school deprives the staff from projects and important tasks." Doesn't confirm Autonomy – Doesn't confirm what was stated in the interviews about removing the head of committee (may be because it is a rare thing). But, this indicate concern for staff feelings (if this is the case there is inconsistency between the different themes (Accountability and Concern for staff) they don't go so much together or they go together with governing rules

- (Number of plans based on analysis of evaluation results / total number of plans) * 100
- (Total number of premises and facilities not suitable for use / total number of premises and facilities in the school) * 100

Figure 59: Autonomy Impacted by PM - Case School

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Inferred Values
- Every HoS is a manager in his section

Structural changes
- Staff join committees willingly.
- HoSs are communication link with the management.

Formal Practices
- HoSs nominate teachers for incentives.
- School applies recommendations of Administrative supervisors.
- The school management request students' performance reports from HoSs.
- Committee members decide who should lead.
- Head of committee the members for his committee.

Informal Practices
- Electrical HoS was asked to send a teacher to fix the network.

Rituals
- Sections prepare ceremonies.

Autonomy

"In the school, no one has a defined area of control such as subordinates, budget, physical space, or any other resources".

+ve mode, affected by PA

The vocabulary people in the school use to communicate (e.g. terms, humour, procedures e.g. rewards, punishment) with each other leads to a lot of misunderstanding

+ve range, affected by OL

The school rewards by other forms of intangible rewards e.g. bigger project, asked to join a committee in the school or to participate in an activity, etc

+ve range, affected by PA

Staff are allocated working spaces that others do not share simultaneously

+ve mode, affected by PA, OL, ST

- "In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me." Autonomy did not increase as claimed in interviews

- In the school, no one has a defined area of control such as subordinates, budget, physical space, or any other resources. Autonomy did change as claimed in the interviews.

- Influence, control and authority in the school is based on expertise and knowledge. Autonomy did change as claimed in the interviews.

Figure 60: Autonomy - Control School

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8.2.5. Transparency

In agreement with the findings from the interviews, beliefs relating to influence, formal rank, rewards and punishment are shared across the Case School as found statistically.

In the Control School on the other hand the beliefs congruent with the interviews findings are affected by the different factors (personal attributes, occupational level, and section type). The comparison between the two schools shows that performance measures create transparency and clarity.

This finding (improved and shared transparency) confirms the assertion by Wisniewski and Dickson (2001) that performance measures assist in articulating and communicating the strategy and provide guidance about achieving it.

8.2.6. Concern for Staff

Concern for staff is another theme that improved post implementing the PMS in the Case School. The main beliefs in the questionnaire that could predicate power distance did not change as claimed in the interviews. This to the researcher was a surprise, which necessitated looking for further evidence. Indirect evidence is that action depriving staff of important tasks lessened, meaning that the school cares about the staff's feelings. Moreover, meeting staff needs for courses is done using formal research and assessing staff performance objectively. These two findings are in line with what was said in the interviews.

In the Control School, concern for staff also improved and opposing beliefs about it reduced. On the improvement side, action by admonishment confirms the findings from the interviews. However, other beliefs did not reduce or change like the belief about stereotyping, which links directly to the story of quarrelling teachers about who is superior.

The take away from this comparison is that the Case School besides being 'nice' to its staff is more geared towards satisfying their needs based on objective measures whereas the Control School is merely focusing on being 'nice' to its staff.

Espoused Values
- Open door policy

Structural changes
- Election for management board membership.
- Unifying the sources of information for similar requests of data.
- A website was created.

Formal Practices
- Staff know why rewarded staff in their sections received incentives.
- Circular with the list of committees' members is distributed to all sections.
- Staff are required to sign for receiving documents.
- 3 to 4 circulars are distributed a day.
- Staff list the committees they would like to join and the count is done in the Learning Resources Centre.

Rituals
- Announcement of who received financial incentives and who received gratitude certificates.

Transparency

The vocabulary people in the school use to communicate (e.g. terms, humour, procedures e.g. rewards, punishment) with each other leads to a lot of misunderstanding.

Affected by OL

The information I provide other functional groups are fully understood

Affected by OL

Influence, control and authority in the school is based on Formal rank and job description

+ve range affected by PA

- Transparency could be inferred also from consensus in many beliefs

- (Number of staff satisfied with social and work relationships / total number of staff) * 100
- Number of transfers from the school
- Number of transfers to the school
- (Number of staff satisfied with the distribution of incentives / total number of staff) * 100
- Staff, stakeholders (parents, other schools, etc) satisfied / total number
- (Number of cultural, educational, art, and technical activities / total number of activities) * 100
- (Number of students involved in cultural, educational, art, and technical / total number of students) * 100
- (Number of teachers involved in cultural, educational, art, and technical / total number teachers) * 100
- (Number of staff satisfied / total number of staff) *100

Figure 61: Transparency Impacted by PM - Case School

Formal Practices
- 3 to 4 circulars are distributed a day.
- Staff list the committees they would like to join and the count is done in the Learning Resources Centre.
- Minutes of school management meeting are distributed and HoSs show them to their teachers.
- Flow chart prepared to deal with the students behavioural issues.
- Advertisement for students to join committees.

Physical Arrangements
- Suggestion box.

Transparency

The vocabulary people in the school use to communicate (e.g. terms, humour, procedures e.g. rewards, punishment) with each other leads to a lot of misunderstanding. — *Affected by OL*

The information I provide other functional groups are fully understood — *Shared by all*

Influence, control and authority in the school is based on Formal rank and job description

+ve range, shared by all

The school conducts formal research to know its performance — *Affected by OL*

- Most influence statements are not affected by any attribute indicating transparency

- "Knowledge about incentives criteria is not shared across the school". Confirms with the findings from the interviews as the number of groups in post mentioning their knowledge about incentives in the post is less than the pre

- Reasons for taking actions against staff seem to be shared among employees indicating transparency

- "Managers in the school have an open-door policy". In post the belief is effected by OL.

- "If I have an issue or idea I can go straight to the management of the school to talk to them about it". The mode reduced substantially defying what was said in the interviews

Figure 62: Transparency - Control School

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Inferred Values
• Courses based on staff needs.
Structural changes
• Discipline committee.
• Teachers to gate watch.
Formal Practices
• Questionnaire about students' behaviour, facilities, transparency, fairness.
• All students problems to be directed to HoSs.
Stories
• Teacher stayed in hospital with his father for 3 days
• Teacher looking after his mother.
Physical Arrangements
• Garden

Concern for Staff

When action is taken against a member of staff, the school deprives the staff from projects and important tasks.(The mode decreased to 2.5 and also the range dropped) Doesn't confirm Autonomy – Doesn't confirm what was stated in the interviews about removing the head of committee (may be because it is a rare thing). But, this indicate concern for staff feelings (if this is the case there is inconsistency between the different themes (Accountability and Concern for staff) they don't go so much together or they go together with governing rules

Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you.

+ve range

If I have an issue or idea I can go straight to the management of the school to talk to them about it

• "Managers in the school have an open-door policy." Although it is rated as agree, it didn't increase to confirm the interviews findings.

• "If I have an issue or idea I can go straight to the management of the school to talk to them about it." It didn't change from pre.

• (Number of staff satisfied with social and work relationships / total number of staff) * 100
• Number of transfers from the school
• Number of transfers to the school
• (Number of staff satisfied with the distribution of incentives / total number of staff) * 100
• (Number of dirty classrooms and premises / total number of classrooms and premises) * 100
• (Number of aids relevant to the values the school intends to spread / total number of aids) * 100
• Number of aesthetics additions
• (Number of staff participating in each activity / total number staff participating) * 100
• (Number of staff satisfied with the activities / total number of staff) * 100
• (Number of staff satisfied with the follow-up of students behavioural, social, and psychological problems / total number of staff) *100
• (Number of staff satisfied with the school environment / total number of students) * 100

Figure 63: Concern for Staff Impacted by PM - Case School

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Structural changes
- Committee to discuss the cases of cheating students.

Formal Practices
- Circular to announce condolences.
- Training committee.

Physical Arrangements
- Educational guidance and posters.
- Suggestion box.

Stories
- A teacher was allowed to travel back to Egypt after 10 days of the start of semester.
- Argument between two teachers (Practical and Academic)
- Ill tempered student in English section was dismissed.
- Teacher has problem with his kids.
- Student prohibited from exam.

Concern for Staff

When action is taken against a member of staff, the school admonishes the member of staff.	+ve mode, affected by PA & OL
If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority vote	+ve range, d by PA & OL
People (management, teachers, staff) in the school view each other based on stereotypes e.g. on job type, religion, nationality, etc	+ve mode, affected by PA
Managers in the school have an open-door policy	Affected by OL

- "Relationships in the school are friendship and familial relationships." –ve mode and affected by OL.

- "If I have an issue or idea I can go straight to the management of the school to talk to them about it." –ve mode, and affected by OL.
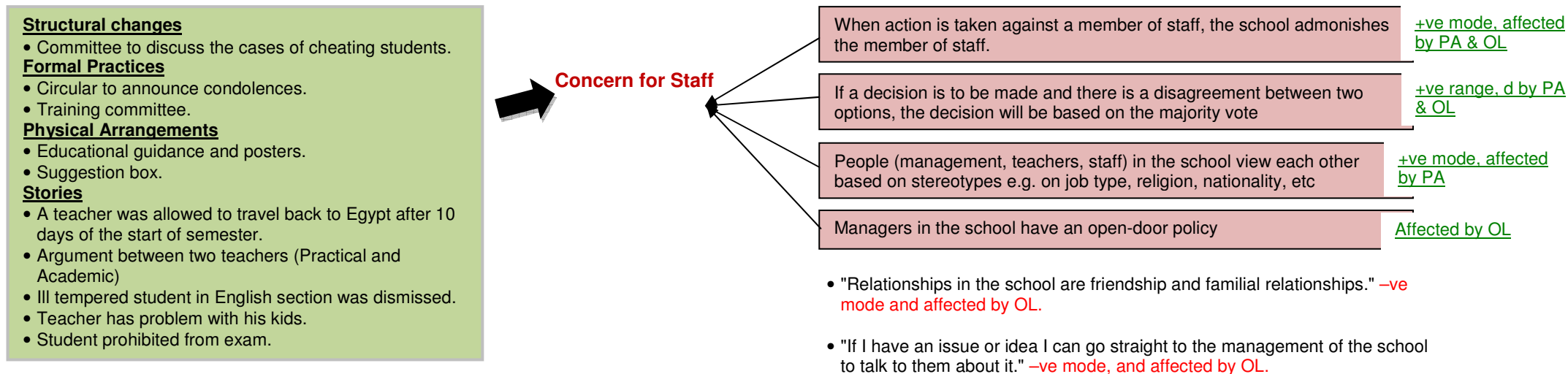
Figure 64: Concern for Staff - Control School

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8.2.7. Eagerness for Development and Improvement

This is the theme that emerged in the Case School. Findings from the questionnaire confirm those of the interviews. For example, rewards in addition to being given for improving students outcomes, are also given for doing jobs other than the main job. This shows that the school strikes a balance between short-termism and long term goals, which agrees with what was found in the literature and the reason for the evolution of the balanced performance measurement framework.

Furthermore, the school attitude towards the problem it faces changed; it now thinks that it can develop to deal with its current issues. Reality is now tested pragmatically, which is confirmed through using performance measures and checklists for evaluating students.

Evidence for performance measures to improve development and improvement willingness was not highlighted in the literature, nor was pragmatism that is considered part of constructing this theme in this research. The other dimension "Human Nature" change from type X to type Y was observed by Robson (2004).

Espoused Values
- We work to develop the school.

Inferred Values
- Competition increased between staff.
- Initiative increased to join the management board.
- Staff self-development increased and willingness to join courses.
- Collaboration and cooperation increased.

Structural changes
- Planning committee
- PM committee.
- Technical committee split.

Formal Practices
- HoSs have folders for teachers' accomplishments and weaknesses.
- Headmaster speech about PM and PM committee.
- Checklist for evaluating students.
- Multiple facet evaluation of teachers.
- Incentives for extra work.
- Workshop about PM.

Physical Arrangements
- The school gate and carpentry entrance décors changed.

Jargon
Distinguished teacher

Eagerness for Development & Improvement

Rewards either tangible or intangible in the school are given for doing jobs other than the main job. Confirms what was found in the interviews   Shared by all

The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them now, but we will develop ourselves to deal with the situation"

Increase of rewards goes inline with eagerness for improvement and development in interviews

When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Let's try it out this way (i.e. the new approach) and evaluate how we are doing". +ve change in range   +ve range

When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our research shows that this new approach is the right way to do it"

In the school the management assumes that the staff are self-motivated and need to be challenged and channeled, not controlled

The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them and have to live with it".   -ve range

- Increase of rewards goes inline with eagerness for improvement and development in interviews

- ((Evaluation mark after training - evaluation mark before training) / evaluation mark before training) * 100
- (Number of pioneered projects achieving xx% in evaluation/total number of projects) * 100
- Difference in % between performance level after training and before training
- (Number of dirty classrooms and premises / total number of classrooms and premises) * 100
- (Number of aids relevant to the values the school intends to spread / total number of aids) * 100
- Number of aesthetics additions

- (Number of staff participating in each activity / total number staff participating) * 100
- (Number of staff satisfied with the activities / total number of staff) * 100
- (Number of student satisfied with the school environment / total number of students) * 100
- (Number of staff satisfied with the school environment / total number of students) * 100
- (Total number of premises and facilities not suitable foe use / total number of premises and facilities in the school) * 100

Figure 65: Eagerness for Development and Improvement Impacted by PM – Case School

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8.3. Synthesis of the Impacts of Performance Measures and the Contribution of this Research

Through the discussed themes there are a number of values/beliefs that act as the bond or the thread for creating consistency across the different themes. These beliefs only emerged and strengthened in the Case School. In this section, the classification obtained from the literature review about the impacts of performance measurement is revisited so that the key outcomes found in this research, which have a substantial contribution to both theory and practice, could be confirmed and added to it.

Table 32 shows in red the main contributions in relation to the literature. There are two additions: (1) the key themes that changed and emerged, and (2) the key values/beliefs that bonded all the themes to create an integrated culture.

In terms of **process/procedural intended impacts** in Table 32, performance measures encourage integration of the different elements of the strategy. It was observed in the Case School that to meeting the staff needs the school provided its staff with courses. These courses were inline with the school's goals and based on identified staff weaknesses or the school's future aspirations for the staff.

Another procedural impact is communicating the school's goals and providing guidance about performance (Transparency). The introduction of the PMS provided the school with an opportunity to hold workshops and meetings with its staff to communicate the school's goals. Reports with Performance Measures' information were discussed in management meetings and distributed to all sections and key areas in the school. These reports from time to time pointed to the school's main focus, highlighted the performance direction and indicated where efforts should be directed.

Furthermore, the school's goals were also communicated indirectly through rewards, punishment and distribution of resources criteria.

In terms of **value/behaviour intended impacts**, Goals (also including Key Success Factors, and Enablers) of the different functional areas were grouped and provided to them to stress their part in achieving the school's strategic goals (strategic alignment). Data regarding these functional areas' performances were also collected indicating to the different functional areas their importance as part of the whole schools' focus.

Moreover, guidance through discussion about the specific goals and processes took place in meetings to reinforce these functional areas' roles.

In terms of *process/procedural unintended impacts,* performance measures set a mechanism for frequent consistent evaluation of the school's performance. Moreover, it initiated rewards and punishments to support the outcome of performance data. Staff who met their specified targets or those who improved student outcomes received rewards, whereas those who were less conscientious in their main jobs had remedial action taken against them.

Accountability was not intended to be an objective behind introducing the PMS in the Case School. The system was always seen to direct focus, to provide objective evaluation for school performance and to identify areas of weaknesses. Accountability was an inherent feature of the PMS. Once the system was in use, staff started feeling that their performance would eventually be evaluated based on their performance in their areas of responsibility. For example, once the student questionnaire was administered teachers felt that the students would evaluate their teaching in the classroom. The school on many occasions when meeting with the staff stressed that the measures would be used for assisting them in knowing their weaknesses and to provide them with support.

Another impact is the process used in selecting staff for the "Prime Committees". The current criteria are experience and knowledge besides the will, as opposed to the previous criterion that was based solely on will. Moreover, discussions in meetings now are based on objective data and diagnoses as opposed to subjective opinions and the Headmaster's judgment as the only truth at the end of each argument.

In terms of *value/behaviour unintended impacts* changing the nature of human nature type from Type X to Type Y was confirmed. Participation and groupism improved in the school and the school management is closer to staff. The management dedicate time for visiting the different sections to talk to them and attend section ceremonies. Moreover, the school's initiative for improvement and development increased and became a common reason for their unusual actions whether done individually or in groups. Motivation also increased as the school more readily appreciates the efforts exerted by the staff either to raise the level of their main work or to develop other areas further. Rewarding was carried out by many means. The school

management took extraordinary steps to reward as many people as possible. They split the typical financial reward into two. These steps made the staff feel more appreciated and changed their attitude towards their work.

Table 32 also shows in blue the values and processes reported in the literature review and were confirmed through the research and these are articulating and communicating the goals of the organisation, providing guidance towards achieving the strategy, accountability, facilitate learning, creating a unified language, strategic alignment and enhancing staff motivation.

In practice all the contributions described above are of great importance. In particular, the outcome of integration as it could be of utmost important to managers and organisation leaders who work on strengthening their organisation's culture. Performance measures, therefore is surely one of the tools to be used.

	Process/Procedural Impact	Behaviour/Value Impact
Intended Impacts	Refine the strategic goals, and integrate the different elements of the strategy	Strategic alignment
	Concern for staff improved and based on their needs	Concern for Students
		Fairness
	Encourages planning the implementation of the organisation's strategy	Consideration for more stakeholders
	Articulate and communicate the organisation's goal, and provide guidance	
	Transparency	
		Creating a unified language
	Provide direction towards achieving the strategy and goals and information for adjustment	
		Facilitate/provide learning
	Organisational Control	
	Accountability	
	Benchmarking – Understanding the organisation's competitive position	Unite the cultures of merging organisations
Unintended Impacts	Objectivity, Results and Target Oriented	Integration of culture
		Initiative for development and Improvement
		Groupism
		Low power distance
		Changing human nature from Type X to Type Y
		Changing Time Orientation
	Pragmatism	Enhancing staff motivation
		Improving top management commitment
	Accountability	Tunnel Vision Sub-Optimisation
		Myopia Measure fixation
		Misrepresentation Ossification
		Gaming Misinterpretation

Table 32: The Key Contributions to Theory and Practice

8.4. Would other Frameworks yield the same result?

The outcomes obtained from this research are a result of introducing the Balanced Scorecard in the Case School. The question that poses itself here is whether or not using another framework would yield the same outcomes.

Actually the question has no definite answer. Let me pose anther question first, "Would the same framework yield the same result in a different context?". The answer would depend primarily on the paradigm one comes from. If one is from a positivist paradigm or critical realism he/she would most probably say "yes", but if he/she comes from the action research or interpretivist he/she would say "maybe" or "no". To the positivist, systems would encourage specific behaviours, whereas to the interpretivist systems become part of the context triggering context and individual specific interactions leading to specific meanings. Whether a positivist (viewing the outcome of this research as concrete evidence) or an interpretivist aim to benefit from the outcomes of this research, they could surely assimilate the outcomes from this research to other contexts. Therefore, one can also say other frameworks similar or sharing similar aspects to the Balanced Scorecard used in this research could be used to obtain similar outcomes to the outcomes obtained here.

Referring back to Figure 53 to Figure 65, hypothetically and based on the manifestations and values, the changes which occurred in the Case School could be linked back to the performance measures shown in Table 33. The measures fall under the five perspectives of the adapted Balanced Scorecard: Key Deliverables, Processes Related to Students, Processes Related to other Stakeholders, Learning and Improvement and Resources – with some measures seeming to impact on more than one theme. In other words, measures from all the different perspectives influenced the change in culture. Therefore, if we look at the key balanced performance measurement systems (Supportive Performance Measure, SMART Pyramid, Results and Determinants Matrix and the Performance Prism), we could compare their different perspectives with the one developed here and suggest that similar perspectives might change the same themes and values.

The generality of the Supportive Performance Measurement System allows the measures developed for the Case School to be slotted into the four; internal/external and cost/non-cost balanced perspectives. However, would developing measures with

the assistance of the framework yield similar measures to the one developed using the Balanced Scorecard? This of course is questionable!. The advantage of the Balanced Scorecard is that it is specific in guiding organisations towards the right thing to do. The balance in the Balanced Scorecard is not, per se, a Balance in number of measures on the same continuum as the case with the Supportive Performance Measurement System. Instead it is a balance in what the focus should be on.

The SMART Pyramid system shares with the Balanced Scorecard the specificity of perspectives. However, it is short of employee, and learning and improvement perspectives. Although the original Balanced Scorecard does not cater for employee satisfaction (Bourne, 2004b), the developed Balanced Scorecard for the Case School considered employee satisfaction highly, in particular, in Processes for Other Stakeholders and in Key Deliverables perspectives. Another obstacle in yielding the same results using the Pyramid is that it was developed for large cooperations and customising it for a branch of a business unit might include to some degree variability emerging from the consultant, PM team, and/or the organisational structure. Therefore, one can conclude that using the Pyramid system might improve concern for students, accountability and autonomy themes, and objectivity value.

The measures developed for the Case School and listed in Table 33 certainly fall into Resources Utilisation, Flexibility and Quality of Service and Competitiveness Perspectives of the Results and Determinants Matrix. The framework like the Pyramid framework is short of perspectives related to employees, and learning and improvement. This means again that the framework will impact on some of the themes such as concern for students, accountability and autonomy.

The last balanced performance measurement system discussed in chapter two is the Performance Prism. As stated previously, it is the most comprehensive and using it will undoubtedly yield similar results. Perhaps it will impact on other beliefs due to the bi-directional relationship with other stakeholders necessitated by the Stakeholders Perspectives – needs and contribution.

Perspective	Performance Measures	Impacted on …………Theme						
		Concern for Students	Fairness	Accountability	Autonomy	Transparency	Concern for Staff	Eagerness for Development and Improvement
Key Deliverables	((Student average at the end of current semester – student average at the end of last semester) / student average at the end of last semester) * 100	✓	✓					
	(Number of staff satisfied with social and work relationships / total number of staff) * 100		✓			✓	✓	
	(Number of staff satisfied with the distribution of incentives / total number of staff) * 100		✓			✓	✓	
	(Number of students satisfied with their teachers encouragement / total number of students) * 100	✓	✓					
	Number of transfers to the school		✓			✓	✓	
	(Number of students in employment in related areas to their school study / total number of graduates) * 100	✓						
	(Number of students in further and higher education with an average over 2 / total numb	✓						
	(Number of teachers satisfied with the students behaviours and attitude / total number of teachers) * 100	✓						
	Image survey	✓						
Learning and Improvement	(Number of aids relevant to the values the school intends to spread / total number of aids) * 100	✓	✓				✓	✓
	(Number of dirty classrooms and premises / total number of classrooms and premises) * 100	✓	✓				✓	✓
	(Number of pioneered projects achieving xx% in evaluation/total number of projects) * 100			✓				✓
	(Number of plans based on analysis of evaluation results / total number of plans) * 100	✓			✓			
	Difference in % between performance level after training and before training			✓				✓
	Number of aesthetics additions	✓	✓				✓	✓

	Staff, stakeholders (parents, other schools, etc) satisfied with communication/ total number			✔		✔				
	((Evaluation mark after training - evaluation mark before training) / evaluation mark before training) * 100									✔
	(Number of students involved in sport activities / total number of sport activities) * 100	✔								
Process related to other Stakeholders	(Number of staff participating in each activity / total number staff participating) * 100								✔	✔
	(Number of staff satisfied with the activities / total number of staff) * 100								✔	✔
	(Number of staff satisfied with follow-up to students behavioural, social and psychological problems / total number of staff) *100	✔							✔	
	(Number of cultural, educational, art, and technical activities / total number of activities) * 100						✔			
	(Number of students involved in cultural, educational, art, and technical / total number of students) * 100						✔			
	(Number of teachers involved in cultural, educational, art, and technical / total number teachers) * 100						✔			
Process related to students	(Number of students satisfied with activities, relationships, participation, dialogues / total number of students) * 100	✔	✔	✔						
	(Number of students satisfied with formative evaluation / total number of students) * 100	✔	✔							
	(Number of students satisfied with the level and type of home-work / total number of students) * 100	✔		✔						
	(Number of students satisfied with the teaching methods / total number of students) * 100	✔	✔	✔						
	(Number of students satisfied with each method of vocational guidance / total number of students) * 100	✔								
	(Number of use of each method of vocational guidance/ total number of uses) * 100	✔								

Resources		C1	C2	C3	C4	C5	C6	C7	C8
	(Number of staff satisfied with the school environment / total number of students) * 100			✓			✓		✓
	(Number of student satisfied with the school environment / total number of students) * 100	✓		✓					✓
	(Total number of premises and facilities not suitable for use / total number of premises and facilities in the school) * 100				✓				✓
	(Number of uses per source "measured in periods" / total number of periods of subject or course) * 100	✓							
	Continuous and regular inspection to the health and safety procedures and facilities in the school	✓							

Table 33: The Performance Measures Impacting the Cultural Themes

According to Bourne (2004; 62) "… it must be realised that performance measurement frameworks are not an end in themselves, but purely a tool to help emphasise, categorise and communicate the business performance. The frameworks provide an illustration of the dimensions of performance that should be considered for measurement. They do not describe precisely what should be measured." And adds, "Every business is in a unique situation and has its own individual strategy" (Bourne, 2004b; 62). In the same vein, the Balanced Scorecard developed for the Case School was driven from the important goals identified based on the needs of the school staff, knowledge about the external environment and understanding the culture of the school. This in effect returns to the point that performance measurement systems are set to achieve better results, which is a function of identifying the right direction. In this research the Balanced Scorecard changed the beliefs of the staff, which could be considered as an indicator for obtaining the longer terms outcomes that are sought by the school. See Figure 2 for the hypothesis set at the outset of this thesis linking performance measurement systems, culture and improved performance. Based on the outcomes of this research, and the hypothetical discussion one can conclude that performance measurement systems in general would change the culture of an organisation and hence improve performance in the longer term.

8.5. Lessons for Practice from introducing the Balanced Scorecard in the Case School

As mentioned at the start of this dissertation, performance measures were only used here to investigate its impact on organisational culture i.e. no specific questions were set and needs to be answered scientifically about the introduction process. However, it would be advantageous to practitioners and researchers alike to read a reflection on the process of introducing the performance measurement system in a Vocational Secondary School in the Middle East (Kingdom of Bahrain). It will try to shed light on the actual operationalisation of the introduction of Performance Measurement System process in the school. It will talk about the detailed interactions and factors that enabled the system to be introduced. These factors influenced three broad components: the development of the Balanced Scorecard, creating the winning PM team and the driving forces for implementation and use. Figure 66 shows this interaction.

Implementation and Use

PM team needs to be freed or have fewer loads

Planning is crucial and sticking to it is a must do

Gaining resourceful, collaborative and enthusiastic people is a key

The use of IT could speed up things and make life easy

Keep communicating with the wider community

Ask the simple questions to stimulate thinking

You need someone able to analyse data

Always have Top Management support

Creating the winning PM team

Developing the Balanced Scorecards

Communication for customising information level and type

Make the PM team believe in the system they are managing and always encourage them

Have a PM Champion early on

Don't let your words stop you

Ensure success of implementation through ownership of Measures

The knowledge level of participants dictates the amount of your homework

Figure 66: Key factors influencing the introduction of the Balanced Scorecard in the Case School

8.5.1. Developing the Balanced Scorecard

The knowledge level of participants dictates the amount of your homework

Although the Strategy Mapping approach is a simple approach to define the organisation's goal, the team had no experience of it or any similar approaches. The set expectations of the first day of the workshop were not achieved as the facilitator (researcher) spent a lot of time in advocating the approach. For the next day, a draft map was prepared (and not shown to the team) and used by the facilitator to stimulate the team thinking and help them build their own map. The map constructed by the researcher was based on the key goals identified by the Director of Technical and

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Vocational Education, his understanding of both contextual and transactional environments and the school culture which he studied prior to developing the strategy map.

Don't let your words stop you

The process described above was extremely useful; however, the researcher found wording of constructs was a big issue for the team. Although to the researcher wording was not a major issue to delay the work and keep the team from achieving the 80%. The team saw it as important as it reflects a deeper rooted assumption held within Educators. They will not accept having something written that would be used in public with grammar/vocabulary mistakes. The researcher resolved this issue by diverting the focus from the wording to meanings and goals, and by agreeing with the members that they would fix the wording later on. He gave the members of the team the constructs to reword after the workshop. This process increased the ownership of the members as they felt they were responsible for the final output of the workshop. Setting performance measures was guided by the questions provided (in Chapter 5 – Ensuring the Balance of Measures) to the team. Again, the challenge was the wording, which was again dealt with in the same manner.

Have a PM Champion early on

In building the strategy map the team sought to include vast, broad goals, key success factors, and enablers. The degree of broadness and depth was seen as an indicator of the enthusiasm of the team. The team members were from different hierarchical levels and functional areas. The flatness of the school structure entailed a larger number of middle and lower level staff being members of the team, which was one of the causes for the large number of constructs on the map. To overcome this issue a mediation process was needed. The facilitator saw this process would best be done by a member of the team from a middle level who was aware of the strategic direction and the key processes needed to achieve them. The Quality Assurance Specialist was advised of the importance of the focus of goals and the necessity of having a small number of measures. The specialist was able to convince the team members without their feeling they were being directed, as they felt the need for focus was seen internally. This again increased the buy-in from the PM team.

8.5.2. Creating the winning PM Team

Communication for customising information level and type

Education of the team members was a key factor in making the introduction of the performance measurement system a success. The researcher set a strategy for contacting the team to educate them and provide them with material. This strategy sought a balance between depth in a specific area and breadth about different approaches that could be used in the implementation and use. Communication and regular feedback were the key drivers for deciding the type and level of information to provide. The researcher cannot specify a mechanism for this as he believes this is based on his tacit knowledge of the subject and awareness of the different literature. E-mails, phone calls, messages, and field visits (meetings) were the different communication approaches used. Meetings started on a quarterly basis, and then were on a six monthly basis as the knowledge of the team increased about performance measurement systems, and communication language was unified between the researcher and the team. Phone calls were more regular, bi-weekly and sometimes weekly, which were then reduced to monthly calls. E-mail was the open channel and had no predetermined frequency.

Make the PM team believe in the system they are managing and always encourage them

The PM team from the start felt the system was theirs and worked hard in introducing it successfully. The researcher believes that especially with academics, a key to this strong buy-in is a good induction supported by evidences and resources. The researcher had an open mind approach to questions and critiques. He devoted a lot of time and effort in providing material to the team members. He overloaded himself with extra work to make sure the team's questions were answered and that they were convinced about the advantages of the system.

Ensure success of implementation through ownership of measures

In the implementation phase, a key success factor was the division of work between the team members in following up the performance data. Prior to collecting data, the team analysed the measures' definition forms. They classified the measures based on frequency of collection, who measures them, who takes action and sources of data.

They created a database of measures that easily identify the measure and its corresponding classification. The team split the responsibility of measures' collection and analysis among themselves, based on the classification. Moreover, they ensured that the measures passed the data abuses tests. This process again ensured collaborative work and ownership simultaneously.

8.5.3. Drivers for Implementation and Use

Always have Top Management support

Anyone working in the field of management would assert that management support is a must for the success of any system. This was always emphasised from the outset. The performance measure champion and the members of the PM team regularly discussed with the school principal the progress of the implementation of the system and flagged the key requirements for continuation. The team being organisation insiders knew how to approach the principal and how things would work. They were starting the meetings by highlighting the key accomplishments. In particular, how the wider community in the school was raising questions and buying in. Then they would emphasise their strategy for the next phase. Examples of the support that the team sought from the principal are "emphasising to the Heads of Sections in the management meeting the importance of collaboration with the team in data collection, etc". Moreover, especially when the management was busy, they provided "autonomy in some tasks to the PM team as communication with the wider community of the school".

Gaining resourceful, collaborative and enthusiastic people is a key

Performance measures do not get implemented in isolation. They require the collaboration of different individuals within the organisation. Recognising this from the early stages assisted the team in aiming at gaining the buy-in of the Head of the Computer Section and the Head of the Technical Drawing Section. The Head of the Computer Section dedicated one of his staff to develop the electronic version of the questionnaire, and allowed the use of his server and labs for the conduct of the student and staff questionnaire. The Head of the Technical Drawing Section also allowed the use of the labs for the student and staff questionnaires.

The use of IT to speed up and facilitate the procedure

IT not only assisted in the communication between the researcher and the team, but also in more difficult and time consuming tasks. Collecting data using questionnaires is a tedious process and requires human capital, but he PM team was small. About 19% of measures were based on results from questionnaires (student, staff and parents). Without the use of IT, data collection and analyses surely would not have happened. That they were accomplished is surely testimony to the benefit of creating collaborative relationships with resourceful stakeholders in the school.

You need someone able to analyse data

Having no member of the team able to analyse data using "Data Analysis Software" like Excel or SPSS was a problem. Although, this issue was borne in mind at the early stages of the development of the system, the school could not provide the team with someone possessing the required skills. The team overcame this problem by asking someone from outside the school as a short-term measure. This would have been a problem in the longer term. However the school management managed to assign a member of the school's staff to help with the data analysis in the following academic year. What can be learnt from this is that early consideration and resolution of the "Data Analysis" is a must.

PM team needs to have adequate time for the task

A persistent handicap for the team was lack of time to manage the implementation and use of the performance measurement system. In addition to their own duties the team had to deal with the details of tedious tasks such as data collection, collation, analyses and writing reports. Moreover, as the PM team were known in the school as effective and hard working staff they were also requested to deal with urgent matters arising. The last point (hard working staff get bombarded with lots of work) is a fact of life for many public sector employees in Bahrain. A better approach would have been to create a secondary team to deal with the tedious work with the main team to focus on the macro implementation and use of performance measures, at least in the first year of the system.

Ask simple questions initially to stimulate thinking

The PM team was referring to the researcher prior to taking major steps. The researcher did not dictate what the team should do, but instead asked the "why, when, how, what, who" questions. The team almost in every instance replied to the questions which sometimes led the researcher to ask more questions. This point also increased the buy-in of the team into the system and strengthened the belief that they were doing the right thing, especially when they knew that their argument was a convincing one.

Planning is crucial and sticking to it is a must do

Planning was encouraged from the first few meetings with the team. The team always set plans and endeavoured to accomplish them. Organisation was a unique feature the team had. The researcher could only enrich the work of the team using the simple questions described above to help them think through their plans. Some plans were not accomplished 100%, but the team would achieve 80%, then tried to obtain the remaining 20% by other means. For example, when the team communicated with the school about the system not all staff were present, so the team created office hours for those willing to learn more about the system. Going the extra mile was another feature that the team utilised to help move the system forward.

Keep communicating with the wider community

Communication with the wider school community was done for different reasons and at different stages. For example, the team's first meeting with the school aimed at lowering their resistance, whereas the second was to take their input regarding the map and measures. The third meeting was with a smaller group to discuss the questionnaires. Other meetings took place for the purpose of educating the school about the implementation and use. In particular, to discuss roles and responsibilities and data sources. The other meetings were for managing with the measures. The PM team communicated with the school as whole, in groups and on one-to-one bases through workshops, presentations, discussions, and dedicated office hours.

8.6. Conclusion on Discussion

The findings from the interviews and from the questionnaire were presented in chapter six and seven respectively. The overall impact of the Performance measurement

system on the shared-ness of the themes qualitatively identified and on the number of beliefs affected by the different personal attributes indicated that the culture of the Case School was integrated. The chapter then synthesised both qualitative and quantitative findings and linked them to the key performance indicators of the performance measurement system developed for the case school. The matrix of process/procedural and values/behavioural impacts was revisited to incorporate the findings from this research. A discussion was also presented hypothesising whether other frameworks would have yielded the same results obtained here. Finally the chapter discussed the lessons learned from introducing the Balanced Scorecard in the Case School with due attention to the details of important factors that led to successful Design of the BSC, Creating a Winning PM Team and preparing a good base for the Implementation and Use stages.

The next chapter concludes this research by discussing the key theoretical and practical contributions together with the limitations of this research and directions for further research.

9. Conclusions

9.1. Reiterating the Research Agenda

This research was set to investigate the impact of introducing a performance measurement system on an organisational culture. It started by looking at the existing literature about sought and reported impacts. This search revealed that there is a need for further investigation from a deeper perspective and using a different and 'richer' methodological approach, a robust research methodology allowing minimum researcher influence and allowing triangulation. Two schools were chosen for a quasi-experimental approach where one is considered the case organisation and the other as the control setting. Triangulated assessments of organisational culture, combining both qualitative and quantitative methods, were conducted prior and post the introduction of the performance measurement system. The data obtained during the research were cross analysed by comparing post with pre implementation data and against the control school's data.

The next sections highlight the key theoretical and practical contributions, limitations and weaknesses, and the opportunities for further research.

9.2. Key Contributions

This section discusses the contributions this research makes to the body of theory and practice alike.

9.2.1. Understanding of the Impact of Performance Measures on Organisational Culture, Behaviour and Values

The research has added to the understanding of the impact of performance measures on organisational culture, behaviour and values in the following ways:

Classification of impacts

The literature review chapter highlighted that there is a shortage of literature identifying the relationship between performance measures and organisational culture. Most of the existing literature has either investigated a single cultural value or practice or is merely

a reflection of introducing a measurement system. This research is the first work to synthesise these available findings, classifying them according to whether the impact was in relation to processes and procedures or to behaviours and values ; and whether the impact was intended or unintended, as seen in Table 1 in Chapter 2. This classification showed that the intended impacts focus on encouraging integrated planning, articulation and communication of goals, increasing accountability, benchmarking and strategic alignment, whereas the unintended results are values and behaviour related and tend to be mainly unwanted impacts such as gaming, myopia, ossification, and tunnel vision.

Confirmation of reported impacts and identification of new impacts

The study showed that a number of values and processes reported in the literature review were confirmed as impacts. These are : articulating and communicating the goals of the organisation, providing guidance towards achieving the strategy, accountability; facilitating learning, creating a unified language, strategic alignment, and enhancing staff motivation. In addition a number of other values and processes (see Table 32) emerged as a consequence of introducing the performance measurement system like pragmatism, objectivity and result orientation, staff capability building based on needs, consideration for more stakeholders, groupism and low power distance.

Concern for Students, Fairness, Transparency, and Concern for Staff themes have strengthened. These themes relate directly to the school's set strategic goals, which in effect confirms that a performance measurement system encourages implementation of the organisation's goals and provides direction towards achieving such goals.

Autonomy and Accountability are the other themes that strengthened even though they were not explicit goals set by the school. This indicates that even though organisations might want to use performance measurement systems to change their culture in some direction, they will have other changes as by-products.

Integration of Organisation Culture

In conducting this research 10 functional groups were interviewed as the sample in each stage and a questionnaire was also administered across the schools at both

stages (pre and post). The analysis conducted, taking into account the different groupings and personal background (detailed in Chapter 5 and 6), has demonstrated that the culture main themes became shared or less affected by personal attributes leading to the conclusion that introducing a performance measurement system integrates the organisational culture.

9.2.2. Methodological Development and Level of Culture Understanding

Culture assessment tool suitable for experimental, cross sectional and longitudinal investigations applicable to other areas

Organisation culture studies tended to take either a qualitative or quantitative stance (Martin, 2002). Martin investigated the prominent researches and classified them into the two stances and highlighted an emerging trend as a third, combining both. The hybrid is no doubt a better approach; however, apart from the argument that many of these researches took a single perspective view on organisational culture (integrated, differentiated or fragmented) they tended to base the quantitative research part on the interview findings only. There is no doubt that any survey to be developed has to consider all the elements of the studied culture, nonetheless, having interviewed a small sample might not reveal the culture with its constituent subcultures. In experimental and comparative studies this issue could be exacerbated further as post intervention findings might be completely different from the pre. This research contributes to the theory of studying organisational culture through the assessment tool developed. Martin's framework of studying culture was used for the qualitative part and Schein's five assumptions were developed in a questionnaire to cover any possible gaps that might be inherent in the sample selection and the change which might be expected through the experiment. The developed culture assessment tool and the rich methodological approach adopted in this research could be used for any culture change assessment and would be ideal for investigating the impact of strategy implementation, introduction of new business administration systems, leadership change, etc.

Investigation of the impact on culture from Culture Symbolism school of thought using the Experimental Methodological approach developed

This research adds also to the body of theory about the impact of performance measurement systems on organisational culture by looking at the impact from a school of thought other than the one adopted by Bititci et al (2004) and Bititci et al (2006) in their research. This research investigated the impact of performance measurement system on culture from the culture symbolism school of thought that seeks depth in revealing the culture essence. Moreover and differently from Bititci et al it investigated the impact adopting a quasi-experimental methodological stance distancing the researcher from the introduction efforts of the performance measurement system. Martin's culture theory of the three perspectives as mentioned above was supplemented by Schein's basic assumptions for the purpose of triangulation and allowing both depth in understanding and breadth in covering a large number of organisation participants.

9.2.3. Success factors for PMS introduction in an Arabian Gulf State

Steps for introducing performance measurement systems are well documented in the literature as discussed in Chapter 5 of this document, however, mostly from a higher level of detail with limited relevance to successful implementation in the Middle East.

Through the introduction of the performance measurement system in this research lessons for practice were drawn that could benefit both practitioners and academics alike. The lessons drawn from and discussed in the previous chapter are classified into 3 categories: Developing the Balanced Scorecards, Creating the Winning Team and Implementation and Use. These categories detail the essential factors that led to the successful introduction of the performance measurement system and despite being drawn from only one introduction effort they could be used as a guide. The researcher duly recognises that these factors might not be applicable to all organisations and systems as surely further research needs to be conducted to concretise the factors, but at least they could provide some indication of what is needed or the perspectives to be considered.

9.3. Limitations of the research

9.3.1. The Sample Organisations, Levels of Culture and Generalisability

Hofstede's research is considered prominent to many scholars; however, it is criticised for various reasons. McSweeney (2002) and Baskerville (2005) stated Hofstede's research assumed that IBM had one culture and that the different occupations within it also were part of the same culture with no variances between the different employees' beliefs, thus making the national culture the only variable . This assumption did not hold true when others tried replicating Hofstede's research. The culture schools of thought discussed in Chapter 3 of this thesis, although independently presented, are interlinked and represent the different layers of understanding culture and its interpretation to the individual. There is a dynamic, for example, between national culture and organisational culture which could have prevented the obtaining of the same findings as Hofstede's in other contexts. The limitation of Hofstede's research and findings applies to the research in hand. Despite the culture of the case school being changed in some specific way, the researcher can not generalise and assert that the culture of other organisations that introduce a performance measurement system will change in the exact same way. The organisations studied are two government run schools from the same directorate in the Middle East with unique population characteristics. The school populations consisted of engineers, some of whom were educated locally and others abroad, local, Arab nationals and Eastern Asian nationalities, young and old, with and without industrial experience, etc creating possibly unique subcultures.

9.3.2. Details of the Different Personal Factors, Culture Perspectives and the Change in Culture Observed

This research investigated how organisational culture is influenced by the introduction of a performance measurement system. It used Martin's (1992) framework to look at the organisational culture from different perspectives. Moreover, the quantitative study considered the different personal background factors that could influence a respondent belief or value in order to identify the overall change. In writing this document the researcher had to make decisions and adhere to the main research questions although there are other benefits that could have been drawn from the data. For example this research did not investigate how the other perspectives (differentiated and fragmented)

have changed and what changed them. The researcher considered it sufficient to present the integrated themes as they were the prominent ones. Moreover, he did not present how the beliefs and values have changed for the different groupings based on the personal factors, and what the implications are for sections within the schools, committees, etc.

9.3.3. Length of Investigation

Change trends over two stages only

In this research the culture of both schools was assessed at two stages; pre and post. Original plans were formulated to investigate the impact of introducing the performance measurement system around mid-term of the post and pre stages to identify the change trends. However, as the school at the mid-term stage as shown in Figure 15 (Chapter 4) did not have a management meeting facilitated by the Performance Data, little impact from the performance system was expected at that stage. Moreover, the researcher at that point had twenty interviews and a few hundred questionnaire responses to analyse, which all contributed to the decision not to conduct the mid-term culture assessment. The researcher strongly believes that if he had had more time for the research both the mid-term and post stages could have been postponed to investigate trends in the school culture and confirm the obtained findings for the longer term.

The Hawthorne Effect

The findings from this research showed that a number of themes have strengthened as well as become shared. One can wonder how sustainable these findings are. Could there have been strong interest and enthusiasm? Could the school staff have believed that the measurement system was the change needed, that the management was eager to get it through, and responded accordingly? Simply, the changes could be further criticised as being a result of the Hawthorne Effect, the improvement or change in performance or behaviour of the subjects as a result of being studied rather than being naturally affected by the tool applied. Further assessments were needed to identify whether the changes were just a result of this effect or in fact a sign for more sustainable change to the school's deep rooted assumptions. Again as the time for this

research was limited to the duration of the doctorate program these assessments of culture were not feasible.

Link between the culture changes and the specific measures used

In this research, the link between the culture changes and the introduced measures and system was identified subjectively by the researcher rather than being derived from objective analysis. Follow-on interviews or questionnaires were also considered as another approach to confirm the relationship between the obtained findings and performance measurement system. The culture changes observed could have been confirmed through the eyes of the organisation culture participants. Consideration was given to an investigation of what particular themes and manifestations link to the performance measurement system and measures from the school participants. However, this was discounted, due once again to the time constraint imposed by the doctorate program.

9.4. Further Research

This research sought to investigate how introducing a performance measurement system would impact on organisational culture. A unique resonant research methodological design as explained in Chapter 4 was adopted trying to distance the researcher from intervention and to distinguish the impact of the system from other impacts caused by environmental or governance factors. The limitations in the previous section, findings, strengths and contributions open up a rich vein of ideas for further research:

- This research needs to be replicated in different contexts. This study could be replicated in other technical schools in Bahrain, public or private schools or companies large and small. The study could be also replicated in different countries or across countries within the same conglomerate to identify whether the culture would really change given different national compositions of population of the sample organisations. The research could also be replicated on virtual teams or working groups investigating whether their beliefs and values would change despite the non -existence of physical interaction.

- In this research the Balanced Scorecard was the performance measurement system introduced in the Case School. Chapter 8 hypothesised on how other frameworks might impact the culture and the different themes. This hypothesis would need to be tested. The Performance Prism and the EFQM are gaining popularity as more companies adopt them. Research using different measurement systems would provide a deeper understanding of what impacts could be expected and hence would be beneficial to organisations opting for a specific framework to suit their culture change requirement.

- With regard to the first and second suggested lines of research, further consideration needs to be given to the initial culture and how the culture might change if a performance measurement system were introduced i.e. will the culture change in the same pattern regardless of the initial state and if not are there common themes across the changed cultures ? The results of this research will concretise and perhaps add to the existing body of theory on the intended (potential intended) impacts of performance measurement systems.

  Moreover, consideration must be given to linking the goals sought by the organisation to the culture changes that would be observed after the introduction of the system as this will certainly broaden the understanding of intended/unintended impacts of introducing performance measurement systems in organisations.

- Building on the second limitation (Details of the Dynamics of the Different Personal Factors and the Change in Culture Observed) in the previous section, detailed investigation and writing could be produced using the available data to capture the details of the change after introducing the performance measurement system. In particular, investigating the different perspectives (differentiated and fragmented) and the reasons for their change in the case school, investigating groupings that share the differentiated and fragmented themes, comparing the quantitative data based on the personal factors such as nationality, section type, years worked in the school, occupational level, etc. This investigation would shed light on the micro dynamics within organisational culture and implications for management of change.

- The changed themes, emerging practices and forms identified post the introduction of the performance measurement system in the case school should be compared

with impacts and outcomes of other espoused culture change mechanisms such as Organisation Restructuring, Business Process Re-engineering, Enterprise Resource Planning, etc. This comparison would certainly shed light on similarities/differences of impacts and hence identify further areas for research and hypotheses building, for example, cost versus benefit of implementing one change program over another.

- In Chapter 1 of this thesis a hypothesis was presented linking performance measurement systems, organisational culture and improved performance. Performance measurement systems were claimed to improve performance. In this research the performance measurement system integrated the culture. Is the integrated culture a mid- stage prior to improved performance? Longitudinal research would have to be conducted to investigate the dynamics of the three.

- Lessons for practices were drawn from introducing the performance measurement system in the Case School. These lessons were developed through the research diary and reflection and hence needs to be firstly systematically cross compared with other performance measurement systems' introduction efforts; and secondly, tested on similar contexts and others to build a list of guides to supplement the existing frameworks for performance measurement systems' introduction efforts in the region and elsewhere.

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Appendix 1 – Lists of Interviewees

No	Date	Interviewees of the Case School – Pre	Start time	End time
1	5/6/2006	**Headmaster** • Hasan Mohd Ameen	14.30	13.30
2		**Deputy Headmasters (group meeting)** • Sabt AlSayed Shubbar • AbdelHadi Mohd Alwan		
3	5/6/2006	**Four Academic Sections Teachers (group meeting)** • Abdulwahed Hasan Ahmad (Arabic) • Sami Mustafa Ahmad (English) • Jafar AbdulHussain Abdulla (Mathematics) • Ahmad Talal AlMosa (Computer)	8:00	10:00
4	5/6/2006	**Four Electrical Engineering Teachers (group meeting)** • Hasan Ali Kharfoosh (Electrical Wiring) • Hamdi AbdulMonem Alsayed (Electric Machines) • Sadiq AbdulAmeer Ahmad (Electronics) • Sami Ahmad AlAradi (Refrigeration and Air Conditioning)	10:30	12:30
5	6/6/2006	**The Quality Assurance, Guidance, Health and Safety Specialists (group meeting – maximum four specialists)** • Eyad Hasan Ali (Quality Assurance) • Hussain Habib AlKayed (Health and Safety) • Abbas Mirza Ahmad (Social Guidance) • Mohd Salman AlOraibi (Academic Guidance)	8:00	10:00
6	6/6/2006	**Four Mechanical Engineering Teachers (group meeting)** • Ebrahim Aref Ebrahim (Auto) • Ashraf Ghazi Subhi (Diesel) • Mohd Abdulla AlDughairi (Machine Shop) • Majed Ebrahim Barakat (Welding)	10:30	12:30
7	7/6/2006	**Four Mechanical Engineering Head of Sections (group meeting)** • Abdulla Ahmad AlTuraif (Auto) • Nader Abdulla AlSamak (Diesel) • Mohsen Abdulla Salem (Machine Shop) • Abdulla Mohd AlHazaymeh (Welding)	8:00	10:00
8	7/6/2006	**Administrators and Store keeper (group meeting – four staff)** • Redha AlSayed Mohd (Registry) • Omran Hasan Ali (Finacial Supervisor) • Jameel AbdAli AlSayegh (Librarian) • Almad Ali Nass (Store Keeper)	10:30	12:30
9	10/6/2006	**Four Academic Head of Sections (group meeting)** • Mohd Mohsen AlHurz (Arabic) • Mahmood Ali AbduLatif (English) • Adel Saeed AlNasheet (Mathematics) • Waleed Mohd Lafi (Computer)	8:00	10:00
10	10/6/2006	**Four Electrical Engineering Head of Sections (group meeting)** • Mahdi Khalil Ebrahim (Electrical Wiring) • Mohd Hasan AlShaikh (Electric Machines) • Baqer Saeed Jumma (Electronics) • AbdulHussain Jaffar Ahmad (Refrigeration and Air Conditioning)	10:30	12:30

No	Date	Interviewee of the Control School – Pre	Start time	End time
1		**Headmaster** • AbdulRedha Hussain Qambar		
2		**Deputy Headmasters (internal assigned) (group meeting)** • Mosa Ebrahim AlAjmy • Sayed Redha Ali Al-Alawi		
3	12/6/2006	**Four Academic Sections Teachers (group meeting)** • Moayyed Hasan Shna'ah (Arabic) • AbdulSattar Bin Mustafa (English) • Zaher Alsayed Isa AlDurazi (Mathematics) • Hussain Ali Habib (Computer)	8:00	10:00
4	12/6/2006	**Four Electrical Engineering Teachers (group meeting)** • Mahmood AbdulHussain AlEskafi (Electrical) • Adli Ahmed Eid (Electrical) • Hasan Saleh Hasan (Electronics) • Ali Nasser AlGhannami (Refrigeration and Air Conditioning)	10:30	12:30
5	13/6/2006	**The Quality Assurance, Guidance, Health and Safety Specialists (group meeting – maximum four specialists)** • Mohd Numan AlAsfoor (Social Guidance) • Reyadh Hasan AlWasti (Academic Guidance)	8:00	10:00
6	13/6/2006	**Four Mechanical Engineering Teachers (group meeting)** • Ali Yousif Ali (Auto) • Fathi Mohd Sabber (Diesel) • AbdulHameed Husni AbdulHameed (Machine Shop) • Khalid Saleh Khalil (Welding)	10:30	12:30
7	14/6/2006	**Four Mechanical Engineering Head of Sections (group meeting)** • Abbas Yehya Mulla Hasan (Auto) • Hasan S Hashem Qarooni (Diesel) • Nabeel Mohd Saif (Machine Shop) • Mohd Ali AlEkri (Welding)	8:00	10:00
8	14/6/2006	**Administrators and Store keeper (group meeting – four staff)** • Hussain Jaffar AlSafar (Registry) • Hamad Ahmed AlJunayyed (Financial Supervisor) • Mansoor Abdulla Sanad (Librarian) • Mustafa Saleh Zulaikh (Store Keeper)	10:30	12:30
9	17/6/2006	**Four Academic Head of Sections (group meeting)** • Mohd Ali Ismaeel (Arabic) • Fathi Abdulla Awadh (English) • Sayed Ali Massood (Mathematics) • Nabeel Ahmad Noffal (Computer)	8:00	10:00
10	17/6/2006	**Three Electrical Engineering Head of Sections (group meeting)** • Adli Ali Oksha (Electrical) • Jassim Juma AlTaytoon (Refrigeration and Air Conditioning) • Mosa Ebrahim AlAjmy (Electronics)	10:30	12:30

No	Date	Interviewee of the Case School – **Post**	Start time	End time
1		**Headmaster** • Hasan Moh'd Ameen		
2		**Deputy Headmasters (group meeting)** • AbdulHadi Moh'd Alwan • Isa Najaf Malik		
3	18/11/2007	**Four Academic Sections Teachers (group meeting)** • AbdulWahed Hasan Ahmad (Arabic) • Raed Ahmed Ismaeel (English) • Jafar AbdulHussain Abdulla (Mathematics) • Ahmad Shaban Shuaib (Computer)	3rd and 4th period	
4	19/11/2007	**Four Electrical Engineering Teachers (group meeting)** • Hasan Ali Moh'd (Electrical Wiring) • Hamdi AbdulMonem Alsayed (Electric Machines) • Sadiq AbdulAmeer Ahmad (Electronics) • Abu Bakr Mustafa AlSayed (Refrigeration and Air Conditioning)	5th **Period for 90 minutes**	
5	20/11/2007	**Four Mechanical Engineering Teachers (group meeting)** • Ebrahim Aref Ebrahim (Auto) • Medhat Emam AlSayed (Diesel) • Husain Husain AbdulFatah (Machine Shop) • Majed Ebrahim Barakat (Welding)	**7.30**	**9:00**
6	21/11/2007	**The Quality Assurance, Social Guidance, and Career Guidance Specialists (group meeting)** • Moh'd Khalil AlSafar (Quality Assurance) • Abbas Mirza Ahmad (Social Guidance) • Mohd Salman AlOraibi (Career Guidance)	**8:00**	**9.30**
7	22/11/2007	**Four Mechanical Engineering Head of Sections (group meeting)** • Abdulla Ahmad AlTuraif (Auto) • Habeeb Saleh Isa (Diesel) • Mohsen Abdulla Salem (Machine Shop) • AbdulHey Ali AbdulHey (Welding)	**After 4th Period**	
8	22/11/2007	**Administrators and Store keeper (group meeting)** • Redha AlSaeed Moh'd (Registry) • Omran Hasan Ali (Finacial Supervisor) • Saeed Ebrahim Ali Sanad (Learning Resource Centre Specialist) • Almad Ali Nass (Store Keeper)	**7.30**	**9.00**
9	25/11/2007	**Four Electrical Engineering Head of Sections (group meeting)** • Mahdi Khalil Ebrahim (Electrical Wiring) • Mohd Hasan AlShaikh (Electric Machines) • Yousif Abdulla Mubarak (Electronics) • Mohsen Moh'd Ahmed AbdulRaheem (Refrigeration and Air Conditioning)	**After 5th Period**	
10	26/11/2007	**Four Academic Head of Sections (group meeting)** • Moh'd Mohsen AlHurz (Arabic) • Fathi Abdulla Awadh Ali (English) • Adel Saeed AlNasheet (Mathematics) • Waleed Mohd Lafi (Computer)	**Between 3rd and 6th Period**	

No	Date	Interviewee of the Control School – **Post**	Start time	End time
1		**Headmaster** • AbdulRedha Hussain Qambar		
2		**Deputy Headmasters (group meeting)** • Sayed Redha Ali AlAlawi • Adel AbdulAziz Ali		
3	27/11/2007	**Four Academic Sections Teachers (group meeting)** • AbdulWahed Salman Husain (Arabic) • Adel Bin Younis (English) • Zaher Alsayed Isa AlDurazi (Mathematics) • Hussain Ali Habib (Computer)	**After 4th**	
4	28/11/2007	**Four Electrical Engineering Teachers (group meeting)** • Ahmed Mustafa Mahmood (Electrical) • AbdulAziz Ahmed Ali (Electrical) • Ali Salman Ahmed (Electronics) • Moh'd AbdulAmeer Salman (Refrigeration and Air Conditioning)	**8:00**	**9:30**
5	29/11/2007	**Four Mechanical Engineering Teachers (group meeting)** • Maher Mahmood Mosa (Auto) • Redha AlSayed AbdulSameea (Diesel) • Ahmed Ahmed AlSayed (Machine Shop) • Khalid Saleh Khalil (Welding)	**8:00**	**9:30**
6	29/11/2007	**Administrative Supervisor, Social Guidance Specialist, and Career Guidance Specialist (group meeting)** • Sayed Fadhel Ahmed Ali (Social Guidance) • Reyadh Hasan AlWasti (Career Guidance) • Tawfeeq AbdulKareem Khadhom Shehab	**10:30**	**12:00**
7	02/12/2007	**Three Electrical Engineering Head of Sections (group meeting)** • Adli Ali Oksha (Electrical) • Jassim Juma AlTaytoon (Refrigeration and Air Conditioning) • Majdey Abbas Mosa Khalifa (Electronics)	**Between 5th & 8th**	
8	03/12/2007	**Administrators and Store keeper (group meeting – four staff)** • Mufeed AbdulJabar Ahmed Abdulla (Registry) • Hamad Ahmed AlJunayyed (Financial Supervisor) • Mansoor Abdulla Sanad (Librarian) • Moh'd Ismaeel AlShuala (Store Keeper)	**8:00**	**9.30**
9	04/12/2007	**Four Academic Head of Sections (group meeting)** • AbdulGhani Salman Aal-Tooq (Arabic) • AbdulSattar Mustafa AlAmery (English) • Sayed Ali Massood (Mathematics) • Nabeel Ahmad Noffal (Computer)	**From 5th**	
10	05/12/2007	**Four Mechanical Engineering Head of Sections (group meeting)** • Moh'd Ali Mejbel (Auto) • Fathi Moh'd Saber (Diesel) • Mansoor Moh'd Redhy Naseef (Machine Shop) • Fawzy Saeed Hasannen (Welding)	**8:00**	**9.30**

HOW THINGS WORK IN YOUR SCHOOL??
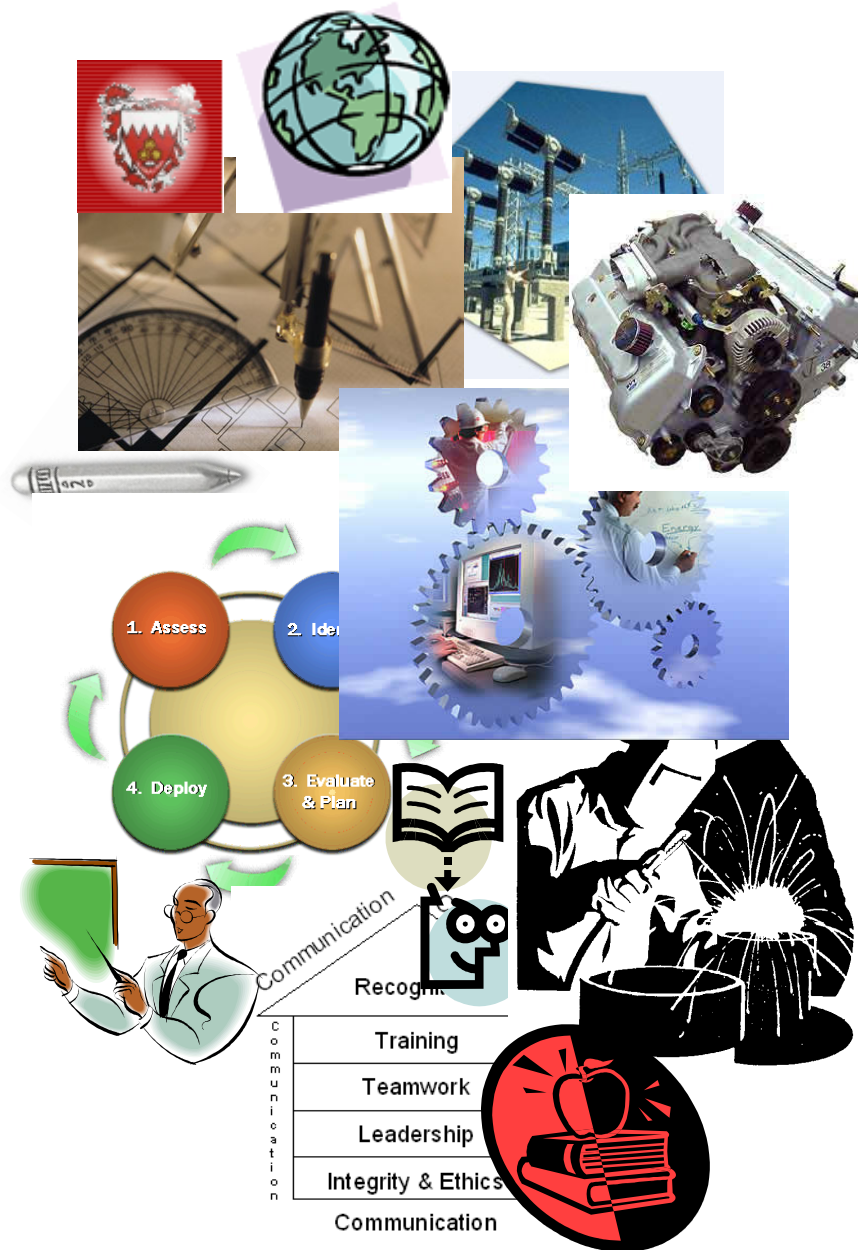
Dear participant,

In your hands a survey about the school's environment, the survey aims at studying the various elements of the educational environment and their impact on the school's performance. Your contribution is vital to make this study a success.

All responses will be anonymous and treated with absolute confidentiality. No personal identification will be disclosed. The information collected will be used for the research purpose solely. Please use this opportunity to provide honest and frank feedback, which will assist improving the educational performance and the work environment.

This survey should take around 30 – 40 minutes to complete.

Sections A through to C are about your school, people in your school and your assumptions about your school

Section A

A1 In your opinion, to what extent the school's core mission (overriding purpose and function) is based upon (*For each sentence, tick ✓only one box*)	Substantially	Moderately	A little	Not at all
Meeting the needs of the students	☐	☐	☐	☐
Meeting the needs of the Ministry of Education	☐	☐	☐	☐
Meeting the needs of the parents	☐	☐	☐	☐
Meeting the needs of other governmental departments	☐	☐	☐	☐
Meeting the needs of staff	☐	☐	☐	☐
Meeting the needs of labour market	☐	☐	☐	☐
Meeting the needs of universities	☐	☐	☐	☐
The school's core competence and what it can offer the society with these competencies	☐	☐	☐	☐
Others *(Please specify)*				
…………………………………………………………….……………………	☐	☐	☐	☐
…………………………………………………………….……………………	☐	☐	☐	☐

A2   Do you think the school performance has ever been unsatisfactory?

Yes ☐   No ☐   I do not Know ☐

If '*No*' or '*I do not know*' go to **A3**

If '*Yes*' how do you think the management of the school has responded?
(Please *tick ✓only one box* for each sentence)

	Always	Usually	Often	Sometimes	Never
Doing nothing	☐	☐	☐	☐	☐
Giving complete autonomy to staff to improve their area's performance	☐	☐	☐	☐	☐
Imposing its suggestion on staff to improve their area's performance	☐	☐	☐	☐	☐
Forming a committee or consulting an expert (e.g. consultant or a specialist) to study how to improve the performance of the concerned area	☐	☐	☐	☐	☐
Seeking higher order suggestions e.g. from the Directorate of Technical Education, The Directorate of Curricula	☐	☐	☐	☐	☐
Others, *(Please specify)*					
……………………………………………………………………………	☐	☐	☐	☐	☐
……………………………………………………………………………	☐	☐	☐	☐	☐

A3   Space allocation to staff e.g. offices, workshops, desks, etc in the school symbolises
(*For each sentence, tick ✓only one box*)

	Always	Usually	Often	Sometimes	Never
Status, position, or power	☐	☐	☐	☐	☐
The perceived importance of the job	☐	☐	☐	☐	☐
The needs of the job	☐	☐	☐	☐	☐
Others, *(Please specify)*					
……………………………………………………………………………	☐	☐	☐	☐	☐
……………………………………………………………………………	☐	☐	☐	☐	☐

A4   Resource allocation e.g. computers, equipment, share of budget, etc in the school symbolises
(*For each sentence, tick ✓only one box*)

	Always	Usually	Often	Sometimes	Never
Status, position, or power	☐	☐	☐	☐	☐
The perceived importance of the job	☐	☐	☐	☐	☐
The needs of the job	☐	☐	☐	☐	☐
Others, *(Please specify)*					
……………………………………………………………………………	☐	☐	☐	☐	☐
……………………………………………………………………………	☐	☐	☐	☐	☐

A5   Rewards either tangible or intangible in the school are given for
(*For each sentence, tick ✓only one box*)

	Always	Usually	Often	Sometimes	Never
Loyalty	☐	☐	☐	☐	☐
Successful performance of whatever jobs were allocated to the person by higher authority	☐	☐	☐	☐	☐
Demonstrating high performance in the main job (e.g. teaching)	☐	☐	☐	☐	☐
Doing jobs other than the main job e.g. participating in committees, developing projects and studies, etc	☐	☐	☐	☐	☐
Adhering to the school's procedures (regulations)	☐	☐	☐	☐	☐
Adhering to the employment regulations either set by the Ministry of Education or Civil Service Bureau	☐	☐	☐	☐	☐
Others, *(Please specify)*					
……………………………………………………………………………..	☐	☐	☐	☐	☐
……………………………………………………………………………..	☐	☐	☐	☐	☐

A6   The school rewards by
(*For each sentence, tick ✓only one box*)

	Always	Usually	Often	Sometimes	Never
The financial incentive at the end of the year	☐	☐	☐	☐	☐
Other tangible rewards e.g. better desk, computer, resources, etc	☐	☐	☐	☐	☐
Promotion to a higher ranked position	☐	☐	☐	☐	☐
Giving a Gratitude Certificate	☐	☐	☐	☐	☐
Verbal thanking	☐	☐	☐	☐	☐
Nomination to attend a course or join a committee outside the school	☐	☐	☐	☐	☐
Other forms of intangible rewards e.g. bigger project, asked to join a committee in the school or to participate in an activity, etc	☐	☐	☐	☐	☐
Others, *(Please specify)*					
………………………………………………………….…………………	☐	☐	☐	☐	☐
………………………………………………………….…………………	☐	☐	☐	☐	☐

A7   Formal rank in the school is based on
(*For each sentence, tick ✓only one box*)

	Always	Usually	Often	Sometimes	Never
Personal background e.g. family	☐	☐	☐	☐	☐
Education credentials	☐	☐	☐	☐	☐
Loyalty	☐	☐	☐	☐	☐
Others *(Please specify)*					
……………………………………………………………………………	☐	☐	☐	☐	☐
……………………………………………………………………………	☐	☐	☐	☐	☐

A8   The school takes action against staff who
(*For each sentence, tick ✓only one box*)

	Always	Usually	Often	Sometimes	Never
Break the employment regulations either set by the Ministry of Education or Civil Service Bureau	☐	☐	☐	☐	☐
Break the school's procedures (regulations)	☐	☐	☐	☐	☐
Can not control their classrooms (for teachers, head of sections, Temporary Head of Section)	☐	☐	☐	☐	☐
Does not achieve high performance in their main area e.g. low students' achievement	☐	☐	☐	☐	☐
Does not accomplish whatever jobs were allocated to the person by higher authority	☐	☐	☐	☐	☐
Does not meet specified targets	☐	☐	☐	☐	☐
Others, (*Please specify*)					
…………………………………………………………………………	☐	☐	☐	☐	☐
…………………………………………………………………………	☐	☐	☐	☐	☐

A9   When action is taken against a member of staff, the school
(*For each sentence, tick ✓only one box*)

	Always	Usually	Often	Sometimes	Never
Gives a warning letter	☐	☐	☐	☐	☐
Admonishes the member of staff	☐	☐	☐	☐	☐
Halts (retaining/keeping from promotion) in position	☐	☐	☐	☐	☐
Deprives the staff from projects and important tasks	☐	☐	☐	☐	☐
Ends the contract of the staff or transfer him to another school	☐	☐	☐	☐	☐
Others, (*Please specify*)					
…………………………………………………………………………	☐	☐	☐	☐	☐
…………………………………………………………………………	☐	☐	☐	☐	☐

A10   When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is
(*For each sentence, tick ✓only one box*)

	Always	Usually	Often	Sometimes	Never
"Why do we need to change! It has always been done this way"	☐	☐	☐	☐	☐
"Our headmaster/head of section wants to do it this way"	☐	☐	☐	☐	☐
"This decision belongs to the curriculum department, other departments or committees"	☐	☐	☐	☐	☐
"We debated the new approach, committees studied it , and the approach is still sound, so we will do it"	☐	☐	☐	☐	☐
"Let's try it out this way (i.e. the new approach) and evaluate how we are doing"	☐	☐	☐	☐	☐
"Our research shows that this new approach is the right way to do it"	☐	☐	☐	☐	☐
Others, (*Please specify*)					
…………………………………………………………………………	☐	☐	☐	☐	☐
…………………………………………………………………………	☐	☐	☐	☐	☐

A11 Influence, control and authority in the school is based on
(*For each sentence, tick √only one box*)

	Always	Usually	Often	Sometimes	Never
Personal characteristics and track records e.g. ability to negotiate, survive with your ideas, convince	☐	☐	☐	☐	☐
Formal rank and job description	☐	☐	☐	☐	☐
The network of support and alliances	☐	☐	☐	☐	☐
Expertise and knowledge	☐	☐	☐	☐	☐
Access and control of agendas	☐	☐	☐	☐	☐
Control of resources	☐	☐	☐	☐	☐
Control of rewards	☐	☐	☐	☐	☐
Ability to coerce, block, interfere, or punish	☐	☐	☐	☐	☐
Others, *(Please specify)*					
………………………………………………………………………………………	☐	☐	☐	☐	☐
………………………………………………………………………………………	☐	☐	☐	☐	☐

A12 In the school the management assumes that the staff are
(*For each sentence, tick √only one box*)

	Always	Usually	Often	Sometimes	Never
Lazy and must therefore be motivated with economic incentives and controlled by constant surveillance	☐	☐	☐	☐	☐
Basically self-motivated and need to be challenged and channelled, not controlled	☐	☐	☐	☐	☐
Motivated by the need to relate well to their peers and membership groups	☐	☐	☐	☐	☐
Difficult to manage as they always adapt in relation to what they have been told	☐	☐	☐	☐	☐

A13 The attitude in the school towards the problems it faces e.g. weak students or students vandalism is
(*For each sentence, tick √only one box*)

	Always	Usually	Often	Sometimes	Never
"We can do something about them"	☐	☐	☐	☐	☐
"We can do nothing about them and have to live with it"	☐	☐	☐	☐	☐
"We can do nothing about them now, but we will develop ourselves to deal with the situation" e.g. through staff training and development, etc	☐	☐	☐	☐	☐

Section B

	For each of the following statements please tick √ the box that most closely matches your view	Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
1	In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me	□	□	□	□	□
2	The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis	□	□	□	□	□
3	The school conducts formal research to know its performance	□	□	□	□	□
4	Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you	□	□	□	□	□
5	The people in the school worry mostly about how to get the immediate tasks done	□	□	□	□	□
6	In the school, time for accomplishing things is tied to targets, milestones, or deadlines which are specified in advance and related to external deadlines like labour market needs	□	□	□	□	□
7	If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority vote	□	□	□	□	□
8	People (management, teachers, staff) in the school view each other based on stereotypes e.g. on job type, religion, nationality, etc	□	□	□	□	□
9	Work to me is a higher priority in comparison to my family or having a family	□	□	□	□	□
10	Relationships in the school are friendship and familial relationships	□	□	□	□	□
11	In the school, no one has a defined area of control such as subordinates, budget, physical space, or any other resources	□	□	□	□	□
12	The management of the school in assessing (evaluating) the staff focuses on soft evidence e.g. walking around and talking to people	□	□	□	□	□
13	The management of the school senses from different sources e.g. being told by a stakeholder or observing trends in the society to know the performance of the school	□	□	□	□	□
14	In the school dressing style reflects position, power, and status	□	□	□	□	□
15	The people in the school worry mostly about the near future e.g. mid-term results or end of term results	□	□	□	□	□
16	In the school, time for developing and accomplishing tasks is characterised by "things will take as long as they will take" as things can not be speeded up or slowed down	□	□	□	□	□
17	If a decision is to be made and there is a disagreement between two options, the person with the highest authority will decide	□	□	□	□	□
18	People (management, teachers, staff)in the school view each other in a very particularistic way as whole person	□	□	□	□	□
19	Work to me is a higher priority in comparison to myself-interests	□	□	□	□	□
20	Relationships in the school are mainly work relationships	□	□	□	□	□
21	If I have a defined area of control, I would be insulted to be given advice in that area	□	□	□	□	□
22	The people in the school are living in the past reflecting on the good old days assuming things worked out then and must be good enough to work now and in the future	□	□	□	□	□
23	In the school, the emphasis is posed on what has been accomplished within a phase e.g. semester, month, a year rather than short time slots	□	□	□	□	□
24	If there is a disagreement between two teachers (staff) about the accuracy of a machine/equipment, they will resolve the disagreement by testing the machine/equipment	□	□	□	□	□
25	I trust elder-statesmen experiences in the school	□	□	□	□	□
26	Other functional groups act exactly according to the information I provide them	□	□	□	□	□
27	In the school, if a group/committee worked on a project, the group will present their achievement as a group	□	□	□	□	□
28	Managers in the school have an open-door policy	□	□	□	□	□

		Strongly agree	Agree	Neither agree or disagree	Disagree	Strongly disagree
29	Social rewards such as status, task and project allocation are assigned on the basis of the person's background, family, religion, nationality, etc.	☐	☐	☐	☐	☐
30	The vocabulary people in the school use to communicate (e.g. terms, procedures e.g. rewards, punishment) with each other leads to a lot of misunderstanding	☐	☐	☐	☐	☐
31	Staff are allocated working spaces that others do not share simultaneously	☐	☐	☐	☐	☐
32	The people in the school worry about the far future e.g. by investing heavily in research and development, training, infrastructure, etc	☐	☐	☐	☐	☐
33	In the school, time is divided into slots where only one task is performed at a time	☐	☐	☐	☐	☐
34	In the school, I need to collaborate and work with other staff who work at different time pace from mine	☐	☐	☐	☐	☐
35	If a decision is to be made and there is a disagreement between two options, the most experienced person will decide on the best option	☐	☐	☐	☐	☐
36	I do not trust anyone experience in the school unless it (the argument) is proven to me	☐	☐	☐	☐	☐
37	The information I provide other functional groups are fully understood	☐	☐	☐	☐	☐
38	In the school, if a group/committee worked on a project, each member tries to outshine others by showing his own accomplishment	☐	☐	☐	☐	☐
39	If I have an issue or idea I can go straight to the management of the school to talk to them about it	☐	☐	☐	☐	☐
40	Social rewards such as status, task and project allocation are assigned on the basis of the person's accomplishments	☐	☐	☐	☐	☐
41	The school has groups in which outsiders are treated with hostility or indifference whereas insiders become privy to some more secret assumptions	☐	☐	☐	☐	☐

Section C
Please write your answers in the spaces provided

C1   What do you see as the goals of the school? *(Please list)*

C2   What do you think is the main criterion your performance is measured by? (*Please state*)

C3   What is the main measurement criterion you would like your performance to be assessed by? (*Please state*)

Section D
Some information about yourself

D1 Nationality
(Please tick ✓ the appropriate box)

☐	Bahraini	☐	Egyptian
☐	Jordanian	☐	Tunisian
☐	Philippine	☐	Indian
☐	Other *(Please specify)*…………………………..		

D2 Age
(Please tick ✓ the appropriate box)

☐	20 to 24	☐	25 to 29
☐	30 to 34	☐	35 to 39
☐	40 to 44	☐	45 t0 49
☐	50 to 54	☐	Over 55

D3 Have you always worked in a school?

Yes ☐   No ☐

If '*Yes*' go to D4

If '*No*' please specify what background/industry you came from

D4 How many years have you worked in Aljabria School since you were last transferred or employed in it?
(Please tick ✓ the appropriate box)

Less than 1 year	☐
1 year to less than 2 years	☐
2 years to less than 3 years	☐
3 years to less than 4 years	☐
4 years to less than 5 years	☐
5 years to less than 10 years	☐
5 years or more	☐

D5 Have you worked in any other Technical Education school of the Technical Education Directorate of the Ministry of Education of Bahrain?

Yes ☐   No ☐

If '*No*' go to **D6**

If '*Yes*' please select the relevant school/s and specify the period/s you worked in it/them

School Name		*Period/s*
Manama	☐	…………………………..…...
		………………………………..
Muharraq	☐	………………………………..
		………………………………..
Jid Hafs	☐	………………………………..
		………………………………..
Sheik Abdulla	☐	………………………………..
		………………………………..
Sheik Khalifa Institute	☐	………………………………..
		………………………………..

D6 Your Current Job Title
(Please tick ✓ the appropriate box)

Administrator Supervisory	☐
Deputy Headmaster	☐
Financial Supervisor	☐
* Head of Section	☐
Headmaster	☐
Health and Safety Coordinator	☐
Librarian	☐
Quality Specialist	☐
Secretary	☐
Social Guidance Specialist	☐
Store Keeper	☐
* Teacher	☐
* Temporary Head of Section	☐
Typist	☐
Vocational Guidance Specialist	☐
Other *(Please specify)*………………………..	☐

* If you are a '*Teacher*', a '*Head of Section*' or a '*Temporary Head of Section*' please state which section are you in …………………………………………………..

…………………………………………………..

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D7   **Are you a member of a school committee?**

Yes   ☐   No   ☐

If '**Yes**' go to **D8**   If 'No' go to **D9**

D8   **Which committee are you a member of?**
(Please tick ✓ all relevant options)

☐ Cultural	☐ Technical	☐ Sport	☐ Scouts
☐ Planning	☐ Agriculture	☐ Follow-up and Documentation	☐ Health and Safety

☐ Others *(Please specify)*

………………………………………………………………………………….

D9   **Are you involved in any of the committees' activities?**

Yes   ☐   No   ☐

If '**Yes**' go to **D10**   If '**No**' go to **D11**

D10   **Which committee/s are you involved in its activities?**
(Please tick ✓ all relevant options)

☐ Cultural	☐ Technical	☐ Sport	☐ Scouts
☐ Planning	☐ Agriculture	☐ Follow-up and Documentation	☐ Health and Safety

☐ Others *(Please specify)*

…………………………………………………………………………………

D11   **Are you involved in committees/jobs authorised by the Ministry of Education outside the school?**

Yes   ☐   No   ☐

If '**Yes**' please specify

This is the end of the questionnaire, Thank you for your cooperation

ما هو أسلوب العمل في مدرستك؟؟

عزيزي المشارك من مدرسة جدحفص الصناعية،

بين يديك استبانه تتعلق بدراسة تشخيصية لواقع العمل في مدرستك. تأتي هذه الاستبانة ضمن دراسة شاملة لعناصر البيئة التعليمية وانعكاساتها على أداء المدرسة ككل. أن مساهمتكم حيوية لإنجاح هذه الدراسة.

جميع الإجابات والردود سيتم استخدامها غير مرتبطة باسم صاحبها، وستعامل بسرية مطلقة. ولن يتم الإفصاح عن أية بيانات تدل على الهوية الشخصية للمستجيب، وجميع المعلومات التي تتصل بشخصيتك أو عملك، ستستخدم لأغراض البحث العلمي فقط. نرجو أن تكون استجابتكم لأسئلة الاستبانة صادقة وصريحة لمساعدتنا من خلال نتائج الاستبيان في تحسين الأداء المدرسي وبيئة العمل.

هذا وستستغرق تعبئة بيانات المسح حوالي 30-40 دقيقة من وقتكم.

القسم أ إلى القسم ج متعلق بنظرتك إلى مدرستك والعاملين فيها

القسم أ

أ1 **من وجهة نظرك، فإن رسالة المدرسة (الغرض والوظيفة الأساسية) تبنى على أساس ....**
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

	لا أتفق	أتفق إلى حد ما	أتفق إلى حد متوسط	أتفق إلى حد كبير
تحقيق متطلبات الطلاب	☐	☐	☐	☐
تحقيق متطلبات وزارة التربية والتعليم	☐	☐	☐	☐
تحقيق متطلبات أولياء الأمور	☐	☐	☐	☐
تحقيق متطلبات إدارة/إدارات حكومية أخرى	☐	☐	☐	☐
تحقيق متطلبات سوق العمل	☐	☐	☐	☐
تحقيق متطلبات الجامعات والكليات المحلية	☐	☐	☐	☐
كفايات المدرسة وما تستطيع توفيره للمجتمع بهذه الكفايات	☐	☐	☐	☐
أخرى (الرجاء التحديد)				
....	☐	☐	☐	☐
....	☐	☐	☐	☐

أ2   **هل تعتقد إن أداء المدرسة كان غير مرض خلال السنتين الماضيتين:**

☐   لا اعلم ☐   لا ☐   نعم

إذا كان جوابك **"لا "** أو **"لا اعلم"** انتقل إلى أ3

إذا كان جوابك **"نعم"** حدد كيف كان تصرف إدارة المدرسة حيال ذلك
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

	دائما	غالبا	أحيانا	نادرا	أبدا
لم تتخذ أي إجراء	☐	☐	☐	☐	☐
أعطت حرية مطلقة للموظفين لتحسين أداء عملهم	☐	☐	☐	☐	☐
فرضت اقتراحاتها على الموظفين لتحسين أداء عملهم	☐	☐	☐	☐	☐
شكلت لجنة أو استشارة خبير لدراسة كيفية تحسين الأداء	☐	☐	☐	☐	☐
طلبت الاقتراحات من جهة عليا، مثل إدارة التعليم الفني والمهني أو إدارة المناهج	☐	☐	☐	☐	☐

أخرى *(الرجاء التحديد)*

☐ ☐ ☐ ☐ ☐
....

☐ ☐ ☐ ☐ ☐
....

أ3   **ترمز المواقع المخصصة للموظفين في المدرسة مثل المكاتب، المعامل، الصفوف، الخ، إلى...**
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

	دائما	غالبا	أحيانا	نادرا	أبدا
المنصب، المركز، أو السلطة	☐	☐	☐	☐	☐
أهمية العمل (الظاهرية)	☐	☐	☐	☐	☐
احتياجات العمل	☐	☐	☐	☐	☐

أخرى *(الرجاء التحديد)*

☐ ☐ ☐ ☐ ☐
....

☐ ☐ ☐ ☐ ☐
....

أ4   **ترمز الموارد المخصصة للموظفين في المدرسة مثل الحواسيب الآلية، الأجهزة، الميزانية، الخ، إلى...**
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

	دائما	غالبا	أحيانا	نادرا	أبدا
المنصب، المركز، والسلطة	☐	☐	☐	☐	☐
أهمية العمل (الظاهرية)	☐	☐	☐	☐	☐
احتياجات العمل	☐	☐	☐	☐	☐

أخرى *(الرجاء التحديد)*

☐ ☐ ☐ ☐ ☐
....

☐ ☐ ☐ ☐ ☐
....

5 أ   **المكافآت المادية أو غير المادية في المدرسة تُمنح على أساس لـ**
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
الولاء	☐	☐	☐	☐	☐
نجاح الأداء في أي عمل مُعطى من قبل شخص آخر ذو سلطة أعلى	☐	☐	☐	☐	☐
تقديم أداء عالي في مهام الشخص الرئيسية (مثل التدريس)	☐	☐	☐	☐	☐
العمل في مهام غير المهمة الرئيسية (مثل المشاركة في اللجان، عمل مشاريع ودراسات،الخ...)	☐	☐	☐	☐	☐
التقييد بأنظمة المدرسة	☐	☐	☐	☐	☐
التقييد بأنظمة التوظيف الموضوعة من قبل وزارة التربية والتعليم أو ديوان الخدمة المدنية	☐	☐	☐	☐	☐

أخرى (الرجاء التحديد)

	دائماً	غالباً	أحياناً	نادراً	أبداً
....	☐	☐	☐	☐	☐
....	☐	☐	☐	☐	☐

6 أ   **المدرسة تُكافئ موظفيها من خلال**
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
العلاوة المالية في نهاية العام	☐	☐	☐	☐	☐
مكافئات مادية أخرى مثل مكتب أفضل، حاسب آلي ذو مميزات عالية، موارد أخرى، الخ...	☐	☐	☐	☐	☐
ترقية إلى منصب أعلى	☐	☐	☐	☐	☐
إعطاء شهادة شكر	☐	☐	☐	☐	☐
شكر شفهي	☐	☐	☐	☐	☐
ترشيح الشخص لحضور دورة أو للمشاركة في لجنة خارج المدرسة	☐	☐	☐	☐	☐
أنواع أخرى من المكافئات غير المادية مثل إعطاء مسؤولية الإشراف على مشروع أكبر، يطلب من الشخص أن يلتحق بلجنة أو فعاليات في المدرسة، الخ...	☐	☐	☐	☐	☐

أخرى (الرجاء التحديد)

	دائماً	غالباً	أحياناً	نادراً	أبداً
....	☐	☐	☐	☐	☐
....	☐	☐	☐	☐	☐

7 أ   **شغل المناصب الرسمية في المدرسة يبنى على أساس ...**
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

العبارة	دائماً	غالباً	أحياناً	نادراً	أبداً
أصل (خلفية) الشخص مثل العائلة	☐	☐	☐	☐	☐
المستوى التعليمي	☐	☐	☐	☐	☐
الولاء	☐	☐	☐	☐	☐

أخرى (الرجاء التحديد)

	دائماً	غالباً	أحياناً	نادراً	أبداً
....	☐	☐	☐	☐	☐
....	☐	☐	☐	☐	☐

أ8   تتخذ إدارة المدرسة إجراء ضد الموظف الذي
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

	دائماً	غالباً	أحياناً	نادراً	أبداً
لا يتقيد بأنظمة التوظيف الموضوعة من قبل وزارة التربية والتعليم أو ديوان الخدمة المدنية	☐	☐	☐	☐	☐
لا يتقيد بإجراءات (بأنظمة و قوانين) المدرسة	☐	☐	☐	☐	☐
لا يسيطر على صفه (بالنسبة للمعلمين، لرؤساء الأقسام، للقائمين بأعمال رؤساء الأقسام)	☐	☐	☐	☐	☐
لا يحقق أداءً جيداً في مهمته الأساسية	☐	☐	☐	☐	☐
لا ينجز الأعمال الموكلة إليه من قبل سلطة أعلى	☐	☐	☐	☐	☐
لا يحقق مستوى الأداء المحدد مسبقا	☐	☐	☐	☐	☐
أخرى (الرجاء التحديد)					
....	☐	☐	☐	☐	☐
....	☐	☐	☐	☐	☐

أ9   الإجراءات التأديبية تكون على صورة
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

	دائماً	غالباً	أحياناً	نادراً	أبداً
رسالة لفت نظر	☐	☐	☐	☐	☐
يُعاتب الموظف عتاب عائلي أو اخوي	☐	☐	☐	☐	☐
عدم ترقية الموظف (توقف الموظف في منصبه)	☐	☐	☐	☐	☐
حرمان أو تجريد الموظف من المشاركة في المشاريع أو المهام المهمة	☐	☐	☐	☐	☐
فصل أو تحويل الموظف إلى مدرسة أخرى	☐	☐	☐	☐	☐
أخرى (الرجاء التحديد)					
....	☐	☐	☐	☐	☐
....	☐	☐	☐	☐	☐

أ10   عندما يُنتقد أسلوب العمل الحالي (مثل التدريس باستخدام الطبشور) ويتم اقتراح أسلوب جديد بطريقة أخرى، فتعليقك هو...
(لكل عبارة ضع علامة ✓ أمام الخيار المناسب)

	دائماً	غالباً	أحياناً	نادراً	أبداً
"لماذا نحتاج التغير! دائماً تم انجاز العمل بالطريقة الحالية"	☐	☐	☐	☐	☐
"مدير المدرسة/رئيس القسم يريد العمل بالأسلوب الجديد"	☐	☐	☐	☐	☐
"القرار في أسلوب العمل يرجع إلى إدارة المناهج، إدارات أو لجان أخرى"	☐	☐	☐	☐	☐
"تمت مناقشة التوجه الجديد، وتمت دراسته من قبل لجان، ومازال التوجه سوي (لا عيب فيه)، إذاً سننفذه"	☐	☐	☐	☐	☐
"نجرب التوجه الجديد ولنُقيم بعد ذلك التجربة"	☐	☐	☐	☐	☐
"البحث الذي عملناه يبين أن التوجه الجديد هو الطريق الصحيح"	☐	☐	☐	☐	☐
أخرى (الرجاء التحديد)					
....	☐	☐	☐	☐	☐
....	☐	☐	☐	☐	☐

11 أ **التأثير، التحكم، والصلاحيات في المدرسة مبنية على**
(لكل عبارة ضع علامة √ أمام الخيار المناسب)

	دائماً	غالباً	أحياناً	نادراً	أبداً
قدرات شخصية مثل القدرة على التفاوض، النجاح في تمرير اقتراحاتك، القدرة على الإقناع	☐	☐	☐	☐	☐
الترتيب الوظيفي الرسمي والوصف الوظيفي	☐	☐	☐	☐	☐
العلاقات الشخصية	☐	☐	☐	☐	☐
الخبرة والمعرفة	☐	☐	☐	☐	☐
المعرفة والتحكم في الأجندة	☐	☐	☐	☐	☐
التحكم في الحوافز	☐	☐	☐	☐	☐
القدرة على العقاب، التدخل والاعتراض	☐	☐	☐	☐	☐
أخرى *(الرجاء التحديد)*					
....	☐	☐	☐	☐	☐
....	☐	☐	☐	☐	☐

12 أ **الإدارة تفترض أن العاملين في المدرسة....**
(لكل عبارة ضع علامة √ أمام الخيار المناسب)

	دائماً	غالباً	أحياناً	نادراً	أبداً
كسولين ويجب عليها أن تشجعهم بحوافز مادية، وأن تتحكم بهم من خلال المراقبة الدائمة	☐	☐	☐	☐	☐
عندهم التحفيز الذاتي ولكن يحتاجون الوضع على الطريق الصحيح وإعطائهم أعمال تتحدى قدراتهم وميولهم	☐	☐	☐	☐	☐
محفزين بارتباطهم بزملائهم وجماعتهم في العمل	☐	☐	☐	☐	☐
صعب إدارتهم لأنهم دائما يهيئون أنفسهم للتصرف عكس ما طلب منهم	☐	☐	☐	☐	☐
أخرى *(الرجاء التحديد)*					
....	☐	☐	☐	☐	☐
....	☐	☐	☐	☐	☐

13 أ **وجهة نظرك حيال المشاكل (مثل، ضعف الطلاب أو التخريب) التي تواجهها المدرسة هي...**
(لكل عبارة ضع علامة √ أمام الخيار المناسب)

	دائماً	غالباً	أحياناً	نادراً	أبداً
"نستطيع اتخاذ إجراء حيال هذه المشاكل"	☐	☐	☐	☐	☐
" لا نستطيع اتخاذ أي إجراء وعلينا معايشة المشاكل"	☐	☐	☐	☐	☐
" لا نستطيع عمل أي شيء الآن، ولكننا سوف نطور أنفسنا للتعامل مع الوضع" (مثال، من خلال تدريب الموظفين وتطويرهم)	☐	☐	☐	☐	☐
أخرى *(الرجاء التحديد)*					
....	☐	☐	☐	☐	☐
....	☐	☐	☐	☐	☐

القسم ب

لكل من العبارات التالية ضع علامة √ أمام الخيار المناسب

بدون تحقق	نادراً	أحياناً	غالباً	دائماً		
☐	☐	☐	☐	☐	لدي صلاحيات محددة في المدرسة والذي من الممكن أن تضم موظفين، ميزانية، حيز أو منطقة أو غيرها من الموارد	1
☐	☐	☐	☐	☐	إدارة المدرسة تركز على الأدلة الثبوتية مثل الأدلة الكتابية، التحاليل والبيانات الإحصائية في تقييم موظفين المدرسة	2
☐	☐	☐	☐	☐	تجري المدرسة بحوث رسمية للتعرف على مستوى أدائها	3
☐	☐	☐	☐	☐	ترحيب الإداريين في المدرسة دافئ، يدل على سعادتهم بلقائك وقربهم منك	4
☐	☐	☐	☐	☐	الموظفون في المدرسة قلقون أكثر بشأن انجاز المهمات المستعجلة والراهنة	5
☐	☐	☐	☐	☐	انجاز المهام في المدرسة مُقيد بمواعيد أو تواريخ محددة مسبقا	6
☐	☐	☐	☐	☐	إذا كانت هناك حاجة لاتخاذ قرار وكان هناك خلاف بشأن خيارين فان القرار في الخيار يتم بتصويت الأغلبية	7
☐	☐	☐	☐	☐	الأشخاص (الإداريين، المعلمين، الموظفين) في المدرسة ينظرون إلى بعضهم البعض بتصور نمطي مثلاً على أساس الوظيفة، الانتماء الديني، الجنسية، الخ..	8
☐	☐	☐	☐	☐	العمل بالنسبة لي ذو أولوية أعلى مقارنة بعائلتي	9
☐	☐	☐	☐	☐	تتسم العلاقات داخل المدرسة بأنها علاقات صداقة أو شبه عائلية	10
☐	☐	☐	☐	☐	ليس لدي صلاحيات محددة في المدرسة والذي من الممكن أن تضم موظفين، ميزانية، حيز أو منطقة أو غيرها من الموارد	11
☐	☐	☐	☐	☐	تُركز إدارة المدرسة على الأدلة الواهنة (تلك التي لا تستند إلى حقائق) مثل الحديث للإفراد والزملاء في تقييم موظفين المدرسة	12
☐	☐	☐	☐	☐	تستشف إدارة المدرسة مستوى أدائها من مصادر مختلفة مثل ملاحظات المستفيدين، ملاحظة الاتجاهات و الميول (النزعات) في المحيط الخارجي والمجتمع	13
☐	☐	☐	☐	☐	يدل الزي على المنصب، السلطة، والمكانة في المدرسة	14
☐	☐	☐	☐	☐	الموظفون في المدرسة قلقون أكثر بشأن نتائج امتحانات منتصف الفصل أو نتائج نهاية الفصل	15
☐	☐	☐	☐	☐	فلسفة تنفيذ المهام في المدرسة تعتمد على "المهام تأخذ من الوقت ما تأخذ وما تحتاج" لان المهام لا يمكن تسريعها أو إبطاء انجازها	16
☐	☐	☐	☐	☐	إذا كان هناك حاجة لاتخاذ قرار وكان هناك خلاف بشأن خيارين فان القرار في الخيار يأخذ من قبل الشخص ذو السلطة الأعلى	17
☐	☐	☐	☐	☐	الأشخاص في المدرسة ينظرون إلى بعضهم البعض بصفة تحديديه حيث أن كل شخص منفرد بذاته	18
☐	☐	☐	☐	☐	العمل بالنسبة لي ذو أولوية أعلى مقارنة بهواياتي وميولي	19
☐	☐	☐	☐	☐	العلاقات في المدرسة علاقات عمل بالدرجة الأولى	20
☐	☐	☐	☐	☐	إذا كان لدي صلاحيات، فأني أحس بالإهانة إذا قدم احدهم نصيحة/إرشاد لي في هذا المجال	21
☐	☐	☐	☐	☐	يتذكر موظفي المدرسة الأيام الماضية والأساليب المستخدمة في ذلك الوقت ويزعمون أنها صالحة للتطبيق في الوقت الحاضر والمستقبل كذلك	22
☐	☐	☐	☐	☐	وقت عملي مُقسم إلى مراحل أو أطور طويلة المدى نسبياً مثل فصل، شهر، سنة بدلا من فترات قصيرة	23
☐	☐	☐	☐	☐	إذا كان هناك ما بين مُدرسَين أو مُوظفين في المدرسة عن دقة آلة أو جهاز فسوف يحلون الخلاف بتجريب/اختبار الآلة أو الجهاز	24
☐	☐	☐	☐	☐	أثق بخبرات القادة المتمكنين في مجالهم وحقولهم في المدرسة	25
☐	☐	☐	☐	☐	المجموعات (الفئات) الوظيفية الأخرى تتصرف بالضبط طبقاً للمعلومات التي زودتها بها	26
☐	☐	☐	☐	☐	إذا عمل فريق أو لجنة مدرسية في مشروع فأنهم يقدمون انجازهم كجماعة	27
☐	☐	☐	☐	☐	يعتمد الإداريون في المدرسة سياسة الباب المفتوح	28

	بدون تطبيق	نادراً	أحياناً	غالباً	دائماً		
المكانة الاجتماعية، مهمات العمل، توزيع وتخصيص المشاريع تناط على أساس خلفية الشخص (العائلة، الانتماء الديني، الجنسية)	☐	☐	☐	☐	☐	29
المصطلحات التي تستخدم في المدرسة (للإجراءات، للمكافآت والتأنيب) تؤدي إلى سوء الفهم	☐	☐	☐	☐	☐	30
مُخصص للموظفين مساحات ومناطق عمل لا يشاركهم فيها الآخرين في آن واحد	☐	☐	☐	☐	☐	31
الموظفون في المدرسة قلقون بشأن المستقبل لذا فهم يستثمرون مثلا في الدراسات للتنمية المهنية، والتدريب	☐	☐	☐	☐	☐	32
وقت عملي مُقسم إلى فترات قصيرة حيث تؤدى مهمة واحدة في فترة معينة	☐	☐	☐	☐	☐	33
اعمل مع أشخاص آخرين يعملون بتوقيت زمني مختلف عن توقيتي	☐	☐	☐	☐	☐	34
إذا كان هناك حاجة لاتخاذ قرار وكان هناك خلاف بشأن خيارين فإن الشخص الأكثر خبرة ومعرفة هو من يقرر الخيار الأنسب والأفضل	☐	☐	☐	☐	☐	35
لا أثق بخبرة إي احد في المدرسة شريطة أنْ يُثبت في موضوع النقاش	☐	☐	☐	☐	☐	36
المعلومات التي أعطيها المجموعات (الفئات) الوظيفية الأخرى (مثل الإرشاد المهني، الإشراف، السكرتارية، الخ) تُفهم بشكل كلي	☐	☐	☐	☐	☐	37
إذا عمل فريق أو لجنة مدرسية في مشروع فإن كل عضو يظهر (يميز) شخصه وإنجازه الفردي	☐	☐	☐	☐	☐	38
إذا كان لدي موضوع أو فكرة فاني أناقشها مع إدارة المدرسة مباشرة	☐	☐	☐	☐	☐	39
المكانة الاجتماعية، مهمات العمل، توزيع وتخصيص المشاريع تناط بناءاً على انجازات الشخص	☐	☐	☐	☐	☐	40
توجد مجموعات أو تكتلات في المدرسة حيث أن الذين لا ينتمون لها يعاملون بعداء أو بطريقة تختلف عن هؤلاء ممن ينتمون لهذه المجموعات والذي يتم اطلاعهم على الأسرار والخصوصيات	☐	☐	☐	☐	☐	41

القسم ج

ج1 **ما هي أهداف المدرسة كما تراها؟** **(الرجاء تحديدها)**

ج2 **ما هو أهم معيار يُقاس به أداؤك؟ (الرجاء الذكر)**

ج3 **ما هو أهم معيار تُفضل أن يقاس به أداؤك ؟ (الرجاء الذكر)**

معلومات عن نفسك

د1 الجنسية
(الرجاء وضع علامة ✓ أمام الخيار المناسب)

أردني ☐		تونسي ☐	
بحريني ☐		مصري ☐	
فلبيني ☐		هندي ☐	
أخرى (الرجاء التحديد) ☐			
....			

د2 العمر
(الرجاء وضع علامة ✓ أمام الخيار المناسب)

20 إلى 24 ☐		25 إلى 29 ☐	
30 إلى 34 ☐		35 إلى 39 ☐	
40 إلى 44 ☐		45 إلى 49 ☐	
50 إلى 54 ☐		فوق 55 ☐	

د3 هل كنت دائماً تعمل بمدرسة قبل التحاقك بمدرسة جدحفص؟

نعم ☐ لا ☐

إذا كانت إجابتك "**نعم**" الرجاء الانتقال إلى السؤال **د4**

إذا كانت إجابتك "**لا**" الرجاء تحديد القطاع الذي أتيت منه:

....

....

د4 كم سنة عملت بمدرسة جدحفص؟
(الرجاء وضع علامة ✓ أمام الخيار المناسب)

☐ أقل من سنة
☐ سنة واحدة واقل من سنتين
☐ سنتين واقل من ثلاث سنوات
☐ ثلاث سنوات واقل من أربع سنوات
☐ أربع سنوات واقل من خمس سنوات
☐ خمس سنوات واقل من عشر سنوات
☐ أكثر من عشر سنوات

د5 هل عملت بأي من مدارس التعليم الثانوي الصناعي غير مدرسة جدحفص؟

نعم ☐ لا ☐

إذا كانت إجابتك "**لا**" الرجاء الانتقال إلى الجزء **د6**

أذا كانت إجابتك "**نعم**"، الرجاء اختيار المدرسة / المعهد الذي عملت بها/به وتحديد الفترة التي عملت بها/به

أسم المدرسة/المعهد	الفترة
المنامة ☐	....
	....
المحرق ☐	....
	....
الجابرية ☐	....
	....
الشيخ عبدالله ☐	....
	....
معهد الشيخ خليفة ☐	....
	....

د6 ما هي وظيفتك الحالية
(الرجاء وضع علامة ✓ أمام الخيار المناسب)

☐ اختصاصي إرشاد اجتماعي
☐ اختصاصي إرشاد مهني
☐ اختصاصي جودة
☐ أمين مخزن
☐ أمين مكتبة
☐ رئيس قسم *
☐ قائم بأعمال رئيس قسم *
☐ سكرتير
☐ كاتب
☐ مدرس *
☐ مدير
☐ مدير مساعد
☐ مشرف إداري
☐ مشرف مالي
☐ منسق صحة وسلامة مهنية
☐ آخر (الرجاء التحديد).................................

* أذا كنت "**مدرس**" أو "**رئيس قسم**" أو "**قائم بأعمال رئيس قسم**" الرجاء تحديد القسم الذي تعمل به:

....

د7   **هل أنت عضو بلجنة مدرسية:**

نعم   □   لا   □

إذا كانت إجابتك "**نعم**" الرجاء الانتقال إلى الجزء **د8**

إذا كانت إجابتك "**لا**" الرجاء الانتقال إلى الجزء **د9**

د8   **ما هي اللجنة التي تشارك في عضويتها؟**
(الرجاء وضع علامة ✓ أمام الخيار/الخيارات المناسبة)

الكشافة	□	الرياضية	□	التقنية	□	الثقافية	□
الصحة والسلامة المهنية	□	المتابعة والتوثيق	□	الزراعة	□	التخطيط	□

آخر (الرجاء التحديد) ....   □

د9   **هل تشارك في أي من فعاليات لجان المدرسة:**

نعم   □   لا   □

إذا كانت إجابتك "*نعم*" الرجاء الانتقال إلى الجزء**د10**

إذا كانت إجابتك "**لا**" الرجاء الانتقال إلى الجزء **د11**

د10   **ما هي اللجنة/اللجان التي تشارك في فعالياتها (برغم عدم عضويتك في اللجنة)؟**
(الرجاء وضع علامة ✓ أمام الخيار/الخيارات المناسبة)

الكشافة	□	الرياضية	□	التقنية	□	الثقافية	□
الصحة والسلامة المهنية	□	المتابعة والتوثيق	□	الزراعة	□	التخطيط	□

آخر (الرجاء التحديد) ....   □

د9   **هل أنت مكلف بلجنة أو عمل خارج المدرسة من قبل وزارة التربية والتعليم؟**

نعم   □   لا   □

إذا كانت إجابتك "*نعم*" الرجاء التحديد

هذه هي نهاية الإستبانة، شكراً جزيلاً على حسن تعاونكم

الرجاء إرجاع الاستبانة بعد الإجابة عليها إلى سكرتارية المدرسة في تاريخ أقصاه *2006/11/23*.

Appendix 3 – Maps of Schein's Model Understanding

- 49 Mission and strategy
- 53 goals derived from the mission
- 62 means to acheive goals
- 54 common language
- 55 basic logistical operations
- 56 goals of designing
- 57 goals of manufacturing
- 58 goals of seeling product or service
- 59 cost and time
- 63 day to day behaviour requiring a higher level of consensus (will be very much influenced by the leader's or founder's background)
- 64 how to structure the organisation
- 65 how to design the product or service
- 66 how to finance
- 67 how build and sell products and services
- 68 the style of the organisation
- 69 basic desgin of tasks
- 70 division of labour
- 71 reporting and accountability structure
- 72 reward and incentive systems
- 73 control systems
- 74 information systems
- 75 identifying status and identity
- 76 structures who will get to know whom and who will be in authority (power and politics according Johnson and Scholes)
- 77 defines the boundaries and its rules for membership
- 78 consensus on the means to be used creates the behavioural regularities and many of the artefacts that eventually come as a manifestation of the culture p99
- 82 continuation from concept (78) Power and politics and its different types play a role e ... g expert, position power, etc
- 50 core mission and its basic assumptions in which the organisation defines itself (symbolise itself)
- 60 e we are an engineering company so we try want to achieve innovation ... g we are an engineering company so we try want to achieve innovation
- 61 the assumptions of the core mission or strategy can be defined when the org is challenged to go into new field
- 51 keeping the needs of the stakeholders
- 52 core competencies and function in society
- 79 measuring results
- 80 what to measure
- 81 how to measure it
- 83 define what and how people are assessed
- 84 what kind of action to take if deviation occurs and if remedial action is repeated it may become the norm or the value in the org
- 85 creates a Psychological contract between employees and employer
- 87 how to make change
- 86 Remedial and Repair strategies
- 88 what information to gather
- 89 where to get the information
- 90 who to trust in providing the data and why
- 91 what kind of action to take
- 92 why certain type of action are taken
- 93 need for information gathering
- 94 check if improvement has been achieved
- 95 the loop will form a learning cycle that characterises how the organisation maintains its effectiveness

171 MAP KEY

- 172 Sub Assumption Category
- 173 Basic Assumption
- 174 Implication

Assumptions about External Adaptation

347

Assumptions about Managing Internal Integration

96 Creating a common language and conceptual categories

102 communication system

107 semantic interpretation of the words

105 coordinate actions

106 did you experience any conflict (the meaning of the word conflict depends on the context and perception of employees) with subordinates?

103 categories of meaning that organise perceptions and thought

104 filter out what is unimportant and focus on what is important

132 Peer relationship and intimacy problems derive from the necessity of dealing with feelings of affection, love, and sexuality

138 sex roles, kinship systems, rules for friendship serve to stablize current relatationships while ensuring procreation mechanisms and thereby the survival

139 continue-- of the society

140 sex and procreation

141 ensures ownership through blood relatives (e ...g family owned business, monoarchy)

99 Developing norms of intimacy, friendship, and love

142 any individual initial model is the one established through dealing with parents and siblings

143 the leader or the very projective persons in the organisation will impose the most influence from their models on others within the org

144 creating a model shared among the organisation

145 creating conflicts between the different individual's models

146 sub-groups with different models

147 a comprimise model

97 Defining group boundaries and criteria for inclusion and exclusion

109 who is in the group and who is not

110 why? Criteria for inclusion and exclusion

112 how the group define itself (symbolise itself according to Johnson and Scholes)

108 the researcher can't ask questions unless he/she is aware of the semantic interpretations of the words

115 outsiders are more likely to be stereotyped and treated with indifference or hostility

111 the functionality of the members will depend on the degree they perceive themselves as members of the group

113 Ask members of the org about what they look for in new members and to examine the career histories of present members to find what accounts for inclusion

114 insiders get special benefits, are trusted more, get higher basic rewards, and most important get a sense of identity from belonging to a defined org

116 as one moves farther "in", one becomes privy to some of the more secret assumptions of the group

118 historical accounts of how and why some of the things in the past really happened, who is really part of the dominant coalition or insider group

119 continue, what are the latent functions of the org

135 due to success in job/task, etc and reward from senior person within the core of the culture (the opposite for punishment i outsider) ... e outsider)

101 Explaining the unexplainable - ideology and religion

156 critical events in the org history that are difficult to explain and justify bcoz they were not under the org control

157 Myths and stories describing how it was dealt with the survival problem (dealing with key competitors in the past, downturn in economy, how it developed

159 reaffirming the org mission and specific goals through challanging the the mission and goals, measures, etc

160 reaffirm the org picture of itself, its own theory of how to get things done and how to handle internal relationships

161 the organisation ideology

162 (conscious component of the total set of assumptions that make up the culture

166 ideologies are partially stated in formal company doc as the org's key values

170 stories, parables, oral and written history

163 (a set of rationalisation for essentially unexplained or superstitious behaviour)

164 (reflects ideals and future aspirations as well as current realities and thereby functions as a guide and incentive system for members)

167 ideologies are likely to be embodied in company charters, annual reports, orientation and training materials

168 but they might be only espoused values and may not even make up a coherent ideology ...Only when there are stories supporting the values and when the

169 cont-- underlying assumptions behind the values are articulated can one determine what the substance of the ideology really is

131 authority derives from the necessity of dealing with feelings of aggression

117 learn special meanings attached to certain words and certain rituals that define membership

120 workable rules for managing aggression and mastery needs

98 Distributing power and status

121 power allocation

122 personal success

128 personal characteristics and track record

125 personal characteristics such as the ability to negotiate, convince and to be proved right by the circumtance

127 surviving with your "ideas" the aggression of other people (aggression of people toward ideas)

158 cont-- new product, dealing with valued employee

165 (involve statement about mission, goals, means for accomplishing them and set of relationships among org members)

123 building a network of support

124 formal rank, seniority, and job description

129 due to personal background, education credentials, seniorit y, loyalty, and successful performance of whatever jobs were allocated to the person by higher author

130 Schein highlights the importance of sensitiviy during observation to the nuances of language if someone requires to understand the authority system

126 scratch my back I scratch your back (in the buy-in process)

100 Defining and allocating rewards and punishments

133 Rewards

152 immaterial (symbolic) rewards, such as project/work assignment (longer project, important assignment), appraisal, etc

153 recognition by group members

151 materialistic rewards such bigger office, bonus, better car, higher rank, stock options, etc

148 how organisation try to bring the different models together or instead try to define a new turf for the group to have shared closeness eg games pg 126

150 continue -- irrespective or employees rank

149 what activities does the organisation organise to bring employees together eg sport, mountin walks, etc (rituals)

134 Punishments

154 deprive from projects and important tasks,

155 loss of bonus failure to get raise,

171 MAP KEY

172 Sub Assumption Category

173 Basic Assumption

174 Implication

175 Question to probe meaning

Deeper Assumptions about Reality and Truth

176 The nature of reality and truth

178 what is real and how one determines or discovers what is real

179 what is relevant information, how to interpret information, and when to determine the org has enough of it to decide to act or not and what type of action

212 What is "Information"

213 consensus on which information is relevant to the task at hand

214 each individual or department sees and know the information that is only relevant to him/her or their departmen

180 Levels of reality

181 External physical reality (empirically by objective scientific tests)

183 the degree on what is external physical reality depends on the culture assumption of what is phycial reality within a culture itself

188 Negotiation becomes very difficult if people hold different assumptions about reality e g Arab and Isreal) ... g territorial conflict (e g Arab and Isreal)

189 another exapmle is decision making process in business in which some decision are taken based on empirical data and others need to be taken by consensus

196 High context and Low context

197 low context, unidirectional culture, events, speaches have clea universal meanings regardless of where they came from

198 high context, matual causality culture, events can be understood only in context, meanings can vary, categories can change, and causality cannot be

199 cont– unambiguously established

195 ie social learning produces the types of reality

182 Social reality

184 not empirically tested, but rather based on social (group) consensus e ... g the nature of human nature, way for human to relate to nature and to each othe

186 cont– the distribution of power and the entire political process, and the assumptions about the meaning of life, ideology, religion, group boundaries

187 how a group defines itself, the values it chooses to live by

185 Individual reality

190 what a given person has learned from her/his own experience, which therefore has a quality of absolute truth to that person only

191 truth might not be shared by anyone else, resulting in a difficulty in moving forward until we can clearly articulate what our actual experience base

192 the group also must have a consensus on whose experience to trust

193 In lineal society, based on hierarchical authority (e ... g elder statemen

194 In pragmatic, individualistic society the attitude may well be "prove it to me"

211 CRITERIA FOR DETERMINING TRUTH pp 144-146

203 pure dogma, based on tradition and/or religion

204 revealed dogma that is wisdom based on trust in the authority of wise men, formal leaders, prophets, or kings

205 Truth derived by a "rational-legal" process (as when we establish the guilt or innocence of an individual by means of a legal process that acknowledges

206 cont–from the outset that there is no absolute truth, only socially determined truth)

207 truth as that which survives conflict and debate

208 truth as that which works, the purely pragmatic criterion

209 truth as established by the scientific method, which becomes a kind of dogma, especially in the social sciences, where even the scientific methods is a

210 cont– matter of consensus among social scientists

200 Moralism pragmatism

202 moralistic seeking validation in a general philosophy, moral system, or tradition (eg European managers)

201 pragmatic seeking validation in their own experience (eg American managers)

171 MAP KEY

172 Sub Assumption Category

173 Basic Assumption

174 Implication

175 Question to probe meaning

Deeper Assumptions about Reality and Truth

215 Basic time orientation

216 focus on past, present and future

219 the past, how things used to be

220 the present, worrying only how to get the immediate task done

221 the near future, worrying mostly about quarterly results

222 the distant future, investing heavily in research and development or in building market share at the expense of immediate profits

218 Long-term vs short-term planning

223 influencing the role that planning will play in the management process

224 organisation living in the past reflect on their past glories ignoring present and future challenges

225 the assume things worked in the past they must be good enough to work in the present and future(no need for reexamination)

226 thinking tactically on short term returns(due to stock market demand)or to keep job by manager .. near future results are also useful as a feedback mechan

227 Monochronic and Polychronic time

228 Monochronic, an infinitely divisible linear ribbon that can be divided into appointments and other compartments but within wich only one thing can be done

229 cont-- at a time ie sequentially things are done

230 Polychronic, a kind of medium defined more by what is accomplished than by a clock and within which several things can be done simultaneously (in parallel)

231 the type of time bases helps identifying if the org is short-term oriented or long-term, the importance of relationships

232 eg if relationships are important the boss will spend time talking (chatting about hobbies, family, etc) to the customer and building a good relationship

234 controls human behaviour and taken for granted in most organisations as the only way to get things done efficiently

233 another example is JIT (just in time) that introduces processes everything in parallel to minimise storage time

236 good for building relationships and for solving prob where informantion is widely scattered and highly interactive so all channels must be open at all time

235 more suitable for early stages of an organisation, for smaller systems, and for org where one person is the central point of coordination

237 Planning time and Development time

238 Planning time linear,monochronic, with targets and milestones that were tied to external objective realities such as market opportunities and stock market

240 seeing the world of objects that can be manipulated (eg business manage)

239 Development time, characterised by "things will take as long as they will take" eg biligical cycles like having a baby

241 a person in operating Dev time sees himself more in a process world,where his own dev and that of other things in his world are more oriented to natuaral

243 Discretionary time horizons and degree of "Accuracy"

244 size of time units in relation to given tasks (eg yearly, monthly, quarterly, etc)

246 what are the expected timetables for certain events ie timeline of events

247 how much time to spend on each task

245 What is considered accurate in the realm of time?

249 how long should a task take

248 what is the length of feedback loop

252 Temporal Symmetry, pacing and Entrainment

253 problems in org araise when one individual works in a monochronic manner and he/she suppose to collaborate with another who is working polychronic

254 cont-- the school admin and teachers requiring assistance, doctors and nurses, registry and students all requiring different things simultaneously

171 MAP KEY

172 Sub Assumption Category

173 Basic Assumption

174 Implication

175 Question to probe meaning

Deeper Assumptions about Time

256 Distance and relative placement

257 Space has both Physical Distance and Social Distance

258 Different cultures has different spatial and physical distances that define the social distance ... Hall in Schein defined the following social distances

259 Intimacy distance, among those who consider themselves to be intimate with each other (contact and touching, 6 inch to 8 inch is far)

260 Personal distance, to have personal conversation (eye contact 18 inch to 30 inch, 2 to 4 feet is far)

261 Social distance, talking to several people at once (eye scanning, 4 to 7 feet close, 7 to 12 far)

262 Public distance, with undifferentiated audience (possible use of mic, eye rove systematically not focusing on anyone, 12 to 25 feet close more that 25 far

263 Intrusion distance, that is how far away you have to remain away from others who are having personal conversation

264 also consideration to office layout and workshop/floor layout, open door or close door, close imply privacy (space can be defined as part of symbols)

265 The symbolics of space

266 who should have how much of space and what kind of space

267 the role of space utilisation in getting the work accomplished

268 space equal status eg the president of a company has private bathroom which according to sociologists it preserve the image of leaders as "super-huma"being

269 the location of buildings and architecture might reflect deeper values and assumptions eg Dubai earonotical college has the shape of a plane

270 the physical layout not has symbolic function, but is often used to guide and channel the behaviour of employees, thereby becoming a powerful builder and

271 cont– reinforcer of norms

272 Body language

273 we use gesture body position to communicate our sense of what is going on in a given situation and how we relate to other people in it

274 reflection of our status and intimacy with other people

276 reinforce hierarchical relationship

275 rituals of deference and demeanor ,through interviews, observation, and joint inquiry ,through interviews, observation, and joint inquiry

171 MAP KEY

172 Sub Assumption Category

173 Basic Assumption

174 Implication

175 Question to probe meaning

Deeper Assumptions about Space

351

Deeper Assumptions about Human Nature, Activity, and Relationships

277 what it means to be human

280 being human is not just a physical property but also a cultural construction

279 what kind of behaviours are considered inhuman and therefore grounds for ejection from the group

307 assumptions about the nature of human nature

278 what are our basic instincts

281 badness or evil

282 goodness

283 neutral, capable of being good or bad

285 humans as rational-economic actors

289 motivation/reward and punishment will be based on the nature of human

300 if there is no consensus by the managers about the n

286 humans as social animals with primarily social needs

287 humans as problem solvers and self-actualisers, with primary needs to be challenged and use their talents

290 also workers within the organisation or members of the group behaviour in relation to the org will depend on this nature

291 eg workers will make employees how work hard to slow down so everyone keep with the base and avoid the or from setting a higher performance targets

284 within the Western tradition the assumptions about the human nature are:

292 Maslows law

293 McGregor's theory X and theory Y of managers perception of employees

294 Managers who believed in theory X believed that employees are lazy and only can be motivated financially (economically

296 employees are intrinsically in conflict with their employing organisation

297 vandalism

298 stories of vandalism

295 Theory Y managers believed employees are self-motivated and need to be challenged and channeled, not controlled

299 the organisation makes it possible for employee needs to be congruent with org needs eg the Tech Ed gives tasks to young employees to challenge them

306 Theory Z, the organisation is more important than the individual (need to read about theory Z)

288 humans as complex and malleable

301 one cannot make a universal statement about human nature; instead one must be prepared for human variablity ... Such variability will, reflect

302 change in life cycle in that motives may change and grow as we mature

304 managers must have a consensus on the assumptions of human nature that are used for incentives and control

305 employees because they are malleable will react to the control and incentives system (their nature forms an adaptable cycle) eg in performance measure gaming

303 change in social conditions in that we are capable of learning new motives as may be required by the new situation

311 the nature can be controlled and manipulated

314 ie, it is taken for granted that the proper thing for people to do is to take charge and actively control their environment and their fate

315 the group focus on task, on efficiency, and on discovery ... Org driven by this assumptions seek to grow and to dominate the markets they are in

329 nature, the perceived total environment, can be subjugated and controlled (the Western tradition)

332 does the org view itself as capable of dominating and changing its environment?

310 the doing orientation, the assumptions behind it are

312 a pragmatic orientation toward the nature of reality

313 a belief in human perfectibility

308 Assumptions about appropriate human activity

309 concerned about the way human act in relation to their environment

316 the being orientation

317 is the extreme of the doing orientation and correlates closely with the assumption that the nature is powerful and humanity is subservient to it

318 implying a kind of fatalism: since one cannot influence nature, one must become accepting and enjoy what one has

319 focus on here and now, on individual enjoyment, and on acceptance of whatever comes

320 org working in according to this orientation look for a niche in their environment that allows them to survive and always think in terms of adapting to

321 cont-- external realities rather than trying to create markets or dominate some portion of the environment

330 nature must be harmonised with (the assumption of many Asian religions and societies)

334 or does it assume that it must subjugate itself to its environmnet and accept whatever niche is available?

322 the being-in-becoming orientation

323 lies between the two extremes of doing and being

324 individuals must achieve harmony with nature by fully developing his or her own capacities and, thereby achieving a perfect union with the environment

325 through detachment, meditation, and control of those things that can be controlled, one achieves full self-development and self-actualisation

326 focus is on what the person is rather than what the person can accomplish, on achieving a certain state of development rather than doing and accomplishing

327 the being-in-becoming orientation emphasises that kind of activity which has its goal the development of all aspects of the self as an integrated whole

328 can been seen in organisational attitudes and norms about the expression of emotions, also importance of fitting into the whole

331 one must subjugate oneself to nature (the assumption of some Southeast Asian religions and societies)

333 or does it assume that it must coexist with other organisations and harmonise with its environment by developing its proper niche?

---

337 what problems must be resolved? assumptions about relationships must solve four basic problems for each member:

339 Power and influence - Will my needs for influence and control be met?

342 solution must be found for people to get past self-oriented defensive behaviour and be able to function in the group

340 Needs and goals - Will the group's goals allow me to meet my own needs?

343 these solutions will be influenced by the national/host culture ... and they link to the interinisc characteristics of the human nature

338 identity and role - Who am I supposed to be in this group and what will be my role?

341 Acceptance and intimacy - Will I be accepted, respected, and loved in this group? how close will our relationships be?

335 assumptions about the nature of human nature

336 deals more with the nature of the group itself and the kind of the internal environment it creates for its members

344 Individualism and Groupism

345 if group interests and individual interests differ, which will be sacrificed and which will be protected?

346 influenced by great degree of the national culture of the employees ... Due to globlisation it is challneging to decipher what are basic assumptions

347 Power distance

348 (in countries) is the degree to which people in a hierarchical situation perceive a greater or lesser ability to control each other's behaviou

349 reflects core concepts of the self

352 eg Asian are less focused on differentiating the individual from the group and there 4 put less emphasis on self-actualisation as a core personality process

353 is the self compartmentalised ie work, family and leisure involve differnt aspects of the self or the self is more of a whole

354 cont-- and the idea of seperating work from family does not make any sense

350 Westerners have developed strong concepts of the individual and the self as something otentially quite nct from the and something to be

351 cont-- developed in its own right

355 accountability for performance would entails individualistic style of work and defined hierarc and a set of role for control and reward

356 group work where employees from different positions communicate effectively to find best ways of solving problems ... Reward and control determine what app

357 what type of structure? What are the control systems used for performance, accountability, reward, etc (define the power distance)

358 norms of communication and conveying ideas, inquiring about tasks also indicate the power distance in the org (Schein pg 183)

359 Basic characteristics of Role Relationships

360 in any relationship between people, one can ask these questions:

361 How much emotionality is appropriate? Should the relationships be

362 1) very aloof and "professional" as in a doctor patient relationship

363 2) very emotionally charged, as in friendship?

364 should the relationship be

365 1) very specific, dealing only with the exac reason for the reationship, as in a sales-customer relationship

366 2) diffuse, as in most friendships?

367 Do the participants view each other in

368 1) very general universalistic terms based on stereotypes, as in most sales relationships

369 2) very particularistic way as whole persons?

374 tasks will be assigned on the basis of who is who, decisions are made on the basis of who liked whom and promotions to whom

375 based on the implications

370 Are social rewards, such as status and rank, assigned on the basis of

371 1) what the person is by birth or family membership - what is ascribed to him or her

372 2) what the person has actually accomplished - his or her achievements?

373 family background and level of education background, etc

376 Activity orientation and role definition

377 defines the assumptions about the nature of work activity and its relative importance to other activities such as family, personal concerns, etc

378 how activity orientation is linked to sex/gender roles and to race related assumptions

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Deeper Assumptions about Human Nature, Activity, and Relationships

Appendix 4 – Ethics Letters

3 June 2006

Dear Mr. Hasan Ameen   Headmaster of Aljabria Technical School

Mr. Abdulla Alsada is sponsored by the Ministry of Education for his postgraduate studies in the area of strategy and Performance Management and its effects on organisational culture. He is very keen on presenting his research idea to you and seeks cooperation in implementing his ideas in your school. He would like to meet you at your convenience to discuss the benefits of implementing his ideas and the requirements of implementation. You can contact Mr. Alsada on 36330803 to arrange a suitable time and venue to meet.

Moreover, as an initial part of his project he intends to conduct a number of informal meetings with individuals and groups across the school's different levels. The purpose of the meetings is to get an understanding about how the school works together. The individual meetings will take about an hour whereas the group meetings will take between an hour and a half and two hours.

Attachments:
1. A list of the individuals and groups to be involved in the meetings
2. An informative letter, which to be sent internally and addressed to the individuals and groups to be involved in the meetings

Yours sincerely,

The Director of Technical Education

June 2006

Dear Mr. …………………………………………………..

…………………………………………………..

…………………………………………………..

…………………………………………………..

Mr. Abdulla Alsada is conducting a project on behalf of the Technical Education Department and for his postgraduate studies in which he is collaborating with the management of the school to develop a strategy and a Performance Management System for the school. As an initial part of the project, he wants to talk informally to a number of people individually and in groups from the different levels in the school. The purpose of the meetings is to get some understanding about how the school operates, what it currently does and why it does it.

The information provided in the meetings will be treated confidentially and will be only used anonymously in an academic writing after obtaining permission from the informants about the quotes that will be used.

The meetings are envisaged to take up to an hour and a half to two hours.

Yours sincerely,

The Headmaster

Appendix 5 – E-mail to Culture Theorists for Questionnaire Validation

Dear Prof. ………………,

I'm a DBA student in the University of Strathclyde in Scotland. I'm doing a research about the impact of developing and deploying a performance measurement system on an organisational culture. The organisation that I will implement the performance measurement system on and assess its culture is a Technical and Vocational Education School. The approach I'm intending to follow is assessing the culture prior and post implementing and using the performance measurement system. The findings from the culture assessments (prior and post) will be compared to establish whether the culture of the school has changed or not. I understand that an organisational culture could change due to many interventions/interferences such as systems, leadership, external factors, etc. However, to investigate whether the school culture would change mainly due to the development and deployment of the performance measurement system I have selected two schools under the Technical Education Directorate with similar characteristics, one as the Case School and the other as a control setting.

I have developed a questionnaire based on Schein's basic assumptions categories and elements (questionnaire attached). The use of the questionnaire follows in-depth interviews that I conducted last June. I'm also using a diary while taking the role of interrupted-involvement-participant-observer that is characterised by me being present sporadically over a period of time (I have and I'll be visiting the schools when the Case School develops, implements, and uses the performance measurement system).

I'm acting as a consultant to the Case School at the moment, and I have been trying to distance myself as much as possible, so I minimise my interference on the school's culture.

Prof. ………………, as part of the validation process to the questionnaire, I'm seeking an expert opinion on the questionnaire. I would very much appreciate it if you could have a look at it and let me know your opinion/comments.

Many thanks in advance and best regards,

Abdulla Alsada

DBA Student
Department of Management Science
University of Strathclyde
Graham Hills Building
40 George Street
Glasgow
G1 1QE

Appendix 7 – The Coding Themes

	Theme Name	Theme Definition
1	**Concern for students**	Looking after the students and working for their educational benefit and also their well being.
2	**Concern for students is questioned**	Actions taken or processes that don't benefit the students or their well being. Moreover, things produced to present the school to the external context as doing well.
3	**Confusion about Concern for students**	Actions taken, processes, and things produced that are ambiguous i.e. neither mean concern for students or not concerning about students
4	**Fairness**	Fairly treating and dealing with the staff either in rewards, punishment, etc.
5	**Fairness is questioned**	Unfairly treating and dealing with the staff either in rewards, punishment, etc.
6	**Confusion about fairness**	No clear meaning emerging i.e. fair or unfair. It is just vague!
7	**Motivation and Encouragement**	Appreciation to the staff endeavours and encouragement for them to contribute further.
8	**Motivation and Encouragement are questioned**	Not appreciating staff's endeavours nor encourages them to contribute further.
9	**Transparency and Clarity**	Transparency in dealings, actions, and in communication
10	**Transparency is questioned**	Lack of clarity, transparency and reasoning for actions or regulations.
11	**Confusion about Transparency**	When transparency is talked about it is neither clear nor unclear… Just plain vague!!
12	**Bringing staff together (family / friendliness)**	Efforts exerted by the school to bring the staff together and strengthen the relationships between them.
13	**Belongingness**	Things done by school members indicating their belongingness to the school
14	**Support**	The school management supports Head of Sections or teachers in doing their job. Moreover, Head of Sections supports their teachers.
15	**Support is questioned**	No support is provided and staff are left alone to deal with problems or issues by themselves i.e. carry the load by yourself and deal with it.
16	**Objectivity**	The reality (e.g. about performance) is investigated by numbers and with data
17	**Objectivity is questioned**	The reality (e.g. about performance) is investigated subjectively e.g. by word of mouth
18	**Concern for staff**	Looking after the staff, their well being, and assisting them with their personal matters as well

		as having an empathy and understanding to them
19	**Concern for staff is questioned**	Not understanding staff issues and personal problems. Not standing by them when needed.
20	**Confusion about Concern for staff**	Not clear if the school is doing things for the benefit of staff or not.
21	**Autonomy**	Freedom for staff to work on their own and in their areas of responsibilities and control without interference from the school
22	**Centrality**	No one has control except the managers.
23	**Partnership and participatory**	Shared responsibility for actions and decisions.
24	**Consistency**	Doing the same thing across the different sections of the school. Moreover, dealing with the staff in a consistent manner.
25	**Quality / Consistency is questioned**	Inconsistently doing things in the school or doing things arbitrarily
26	**Accountability**	Actions, procedures to hold the staff accountable for their action
27	**Knowledge management**	Efforts taken to preserve knowledge
28	**Cooperation**	Support, collaboration and initiative by staff to help each other and work together.
29	**Trust is questioned / Blame avoidance**	Actions or procedures taken to reduce the blame or avoid responsibility. Moreover, procedures or actions in place thought to be used to check if staff are doing their jobs.
30	**Meet the need of the MoE**	Things done and beliefs that the school does what it does to meet the needs of the Ministry of Education
31	**Development and Improvement**	Things done for the purpose of developing and improving the school and its students

Appendix 8 – Summary of the beliefs affected by the personal attributes for the different types of sections in the Case School – Pre

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
Mission of the school is based upon meeting the needs of the students						√												
Mission of the school is based upon meeting the needs of the Ministry of Education									√		√	√					√	
Mission of the school is based upon meeting the needs of the parents													√					
Mission of the school is based upon meeting the needs of other governmental departments													√					√
Mission of the school is based upon the school's core competence and what it can offer the society			√				√						√					
Space allocation to staff symbolises perceived importance of the job								√										
Resource allocation to staff symbolises status, position, or power		√																
Resource allocation to staff symbolises perceived importance of the job								√						√				

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
Rewards either tangible or intangible in the school are given for loyalty											√							
Rewards either tangible or intangible in the school are given for successful performance of whatever jobs were allocated by higher authority								√										
Rewards either tangible or intangible in the school are given for adhering to the school's procedures														√				
The school rewards by the financial incentive at the end of the year											√							
The school rewards by other tangible rewards e.g. desk, computer, resources															√	√		
The school rewards by giving gratitude certificate				√														
The school rewards by verbal thanking							√											
The school rewards by nomination to attend a course or join a committee outside the school										√					√	√		
Formal rank in the school is based on personal background e.g. family											√	√		√		√		
Formal rank in the school is based on education credential							√							√				
Formal rank in the school is based on loyalty												√						

	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
The school takes action against staff who break the employment regulations either set by the ministry of education or civil service bureau			√															
The school takes action against staff who break the school's procedures													√					
The school takes action against staff who can not control their classrooms													√					
The school takes action against staff who does not achieve high performance in their main area		√					√						√					
The school takes action against staff who does not accomplish whatever jobs were allocated to the person by higher authority							√											
The school takes action against staff who does not meet specified targets							√						√					
When action is taken against a member of staff, the school gives a warning letter					√												√	
When action is taken against a member of staff, the school deprives the staff from projects and important tasks													√					
When action is taken against a member of staff, the school ends the contract of the staff or transfer him to another school			√															

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our headmaster/head of section wants to do it this way"																√		√
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "This decision belongs to the curriculum department, other departments or committees"		√																
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "We debated the new approach, committees studied it, and the approach is still sound, so we will do it"						√												
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our research shows that this new approach is the right way to do it"											√		√					

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
Influence, control and authority in the school is based on Personal characteristics and track records e.g. ability to negotiate, survive with your ideas, convince											√			√				
Influence, control and authority in the school is based on the network of support and alliances	√										√		√					
Influence, control and authority in the school is based on expertise and knowledge																	√	
Influence, control and authority in the school is based on access and control of agendas	√																	
Influence, control and authority in the school is based on ability to coerce, block, interfere, or punish	√		√															
In the school the management assumes that the staff are lazy and must therefore be motivated with economic incentives and controlled by constant surveillance	√		√															
In the school the management assumes that the staff are motivated by the need to relate well to their peers and membership groups							√											

	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
In the school the management assumes that the staff are difficult to manage as they always adapt in relation to what they have been told									√		√	√						
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them and have to live with it"	√		√															
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them now, but we will develop ourselves to deal with the situation"								√			√							
In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me																√		
In the school, no one has a defined area of control such as subordinates, budget, physical space, or any other resources					√													
If I have a defined area of control, I would be insulted to be given advice in that area	√												√					

	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis	√												√					
The management of the school in assessing (evaluating) the staff focuses on soft evidence e.g. walking around and talking to people											√							
The school conducts formal research to know its performance								√	√				√					
In the school dressing style reflects position, power, and status								√										
The people in the school worry about the far future e.g. by investing heavily in research and development, training, infrastructure, etc		√														√		
In the school, time is divided into slots where only one task is performed at a time		√							√									
In the school, the emphasis is posed on what has been accomplished within a phase e.g. semester, month, a year rather than short time slots													√					

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
In the school, time for accomplishing things is tied to targets, milestones, or deadlines which are specified in advance and related to external deadlines like labour market needs					√													√
In the school, time for developing and accomplishing tasks is characterised by "things will take as long as they will take" as things can not be speeded up or slowed down												√				√		
If a decision is to be made and there is a disagreement between two options, the most experienced person will decide on the best option		√										√		√				
If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority vote							√						√					
If a decision is to be made and there is a disagreement between two options, the person with the highest authority will decide					√											√		
I trust elder-statesmen experiences in the school							√						√			√		
Other functional groups act exactly according to the information I provide them						√												

| | Academic Sections | | | | | | Mechanical Sections | | | | | | Electrical Sections | | | | | |
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
In the school, if a group/committee worked on a project, the group will present their achievement as a group						√		√										
If I have an issue or idea I can go straight to the management of the school to talk to them about it		√				√						√			√			√
People (management, Teachers, staff)in the school view each other in a very particularistic way as whole person								√						√				
Social rewards such as status, task and project allocation are assigned on the basis of the person's accomplishments		√																
Work to me is a higher priority in comparison to my family or having a family							√											
Relationships in the school are friendship and familial relationships											√	√						
Relationships in the school are mainly work relationships													√			√		
Staff are allocated working spaces that others do not share simultaneously												√						
Total number of beliefs affected	7	8	6	1	4	5	10	8	4	1	11	9	18	6	3	10	3	4

Appendix 9 – Summary of the beliefs affected by the personal attributes for the different types of sections in the Control School – Pre

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
Mission of the school is based upon meeting the needs of the Ministry of Education										√								
Mission of the school is based upon meeting the needs of the parents		√																
Mission of the school is based upon meeting the needs of other governmental departments																		√
Space allocation to staff symbolises perceived importance of the job																	√	
Space allocation to staff symbolises the needs of the job															√		√	
Rewards either tangible or intangible in the school are given for successful performance of whatever jobs were allocated by higher authority				√														
Rewards either tangible or intangible in the school are given for demonstrating high performance in the main job	√																	
Rewards either tangible or intangible in the school are given for doing jobs other than the main job																		

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
Rewards either tangible or intangible in the school are given for adhering to the school's procedures	√					√												
Rewards either tangible or intangible in the school are given for adhering to the employment regulations either set by the ministry of education of civil service bureau																		√
The school rewards by promotion to a higher ranked position				√											√			
The school rewards by giving gratitude certificate						√												
The school rewards by verbal thanking						√												
Formal rank in the school is based on education credential						√			√				√					
Formal rank in the school is based on loyalty							√											
The school takes action against staff who can not control their classrooms													√					
The school takes action against staff who does not achieve high performance in their main area						√							√					√
When action is taken against a member of staff, the school admonishes the member of staff						√												
When action is taken against a member of staff, the school halts in position															√		√	√

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
When action is taken against a member of staff, the school ends the contract of the staff or transfer him to another school				√				√					√					
Influence, control and authority in the school is based on Formal rank and job description	√					√												
Influence, control and authority in the school is based on the network of support and alliances																	√	
Influence, control and authority in the school is based on expertise and knowledge													√					
Influence, control and authority in the school is based on control of rewards																	√	
Influence, control and authority in the school is based on ability to coerce, block, interfere, or punish					√				√				√					
In the school the management assumes that the staff are lazy and must therefore be motivated with economic incentives and controlled by constant surveillance		√			√		√					√						
In the school the management assumes that the staff are self-motivated and need to be challenged and channelled, not controlled															√			
In the school the management assumes that the staff are difficult to					√								√					

	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
manage as they always adapt in relation to what they have been told																		
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them now, but we will develop ourselves to deal with the situation"								√						√				
The management of the school in assessing (evaluating) the staff focuses on soft evidence e.g. walking around and talking to people																	√	
The school conducts formal research to know its performance																		√
Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you								√					√		√			
In the school dressing style reflects position, power, and status																√		
The people in the school worry only about how to get the immediate tasks done										√								√
In the school, time for accomplishing things is tied to targets, milestones, or deadlines which are specified in advance and related to external deadlines like labour market needs																√	√	

| | Academic Sections | | | | | | Mechanical Sections | | | | | | Electrical Sections | | | | | |
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
In the school, I need to collaborate and work with other staff who work at different time pace from mine												√						
If there is a disagreement between two Teachers (staff) about the accuracy of a machine/equipment, they will resolve the disagreement by testing the machine/equipment										√								
If a decision is to be made and there is a disagreement between two options, the most experienced person will decide on the best option										√								
If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority vote								√										
If a decision is to be made and there is a disagreement between two options, the person with the highest authority will decide		√			√													
Other functional groups act exactly according to the information I provide them													√		√			
Managers in the school have an open-door policy											√				√			
If I have an issue or idea I can go straight to the management of the school to talk to them about it										√					√			

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	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
People (management, Teachers, staff) in the school view each other based on stereotypes e.g. on job type, religion, nationality, etc														√				
People (management, Teachers, staff)in the school view each other in a very particularistic way as whole person																		√
Work to me is a higher priority in comparison to my family or having a family													√					
Work to me is a higher priority in comparison to myself-interests															√			
The vocabulary people in the school use to communicate (e.g. terms, humour, procedures e.g. rewards, punishment) with each other leads to a lot of misunderstanding	√																	
The school has groups in which outsiders are treated with hostility or indifference whereas insiders become privy to some more secret assumptions																	√	
Relationships in the school are friendship and familial relationships						√							√					√
Relationships in the school are mainly work relationships					√			√										
Total number of beliefs affected	**4**	**2**	**1**	**3**	**5**	**8**	**2**	**5**	**2**	**5**	**1**	**2**	**11**	**2**	**10**	**1**	**8**	**8**

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Appendix 10 – Summary of the beliefs affected by the personal attributes for the different types of sections in the Case School – Post

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
Mission of the school is based upon meeting the needs of the parents							√											
Mission of the school is based upon meeting the needs of other governmental departments		√																
Mission of the school is based upon meeting the needs of labour market									√					√				
Mission of the school is based upon meeting the needs of universities							√											√
Mission of the school is based upon the school's core competence and what it can offer the society							√								√			
Space allocation to staff symbolises perceived importance of the job			√					√										
Resource allocation to staff symbolises the needs of the job											√	√						
Rewards either tangible or intangible in the school are given for loyalty							√											
Rewards either tangible or intangible in the school are given for doing jobs other than the main job													√	√			√	
Rewards either tangible or intangible in		√						√	√									

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
the school are given for adhering to the school's procedures																		
The school rewards by the financial incentive at the end of the year																		√
The school rewards by other tangible rewards e.g. desk, computer, resources	√										√							
The school rewards by giving gratitude certificate					√													
The school rewards by verbal thanking		√									√							
The school rewards by other forms of intangible rewards e.g. bigger project, asked to join a committee in the school or to participate in an activity, etc								√										
Formal rank in the school is based on education credential							√						√					
Formal rank in the school is based on loyalty						√										√		
The school takes action against staff who break the employment regulations either set by the ministry of education or civil service bureau											√	√						
The school takes action against staff who break the school's procedures													√	√		√		
The school takes action against staff who can not control their classrooms		√	√															√
The school takes action against staff		√												√				√

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	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
who does not achieve high performance in their main area																		
The school takes action against staff who does not accomplish whatever jobs were allocated to the person by higher authority																		√
The school takes action against staff who does not meet specified targets		√						√					√					
When action is taken against a member of staff, the school gives a warning letter	√																	
When action is taken against a member of staff, the school admonishes the member of staff									√									
When action is taken against a member of staff, the school deprives the staff from projects and important tasks														√				
When action is taken against a member of staff, the school ends the contract of the staff or transfer him to another school				√														
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our headmaster/head of section wants to do it this way"	√	√							√									
When the way of doing a specific thing									√				√					

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "This decision belongs to the curriculum department, other departments or committees"																		
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Let's try it out this way (i.e. the new approach) and evaluate how we are doing"													√	√				
Influence, control and authority in the school is based on Personal characteristics and track records e.g. ability to negotiate, survive with your ideas, convince												√						√
Influence, control and authority in the school is based on Formal rank and job description									√									
Influence, control and authority in the school is based on access and control of agendas				√							√							
In the school the management assumes that the staff are lazy and must therefore be motivated with economic incentives and controlled by	√	√											√					

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Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
constant surveillance																		
In the school the management assumes that the staff are difficult to manage as they always adapt in relation to what they have been told										√								
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do something about them"				√	√													
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them and have to live with it"				√	√													
In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me			√										√	√	√			
In the school, no one has a defined area of control such as subordinates, budget, physical space, or any other resources		√																
If I have a defined area of control, I would be insulted to be given advice in that area			√										√	√				
The management of the school in assessing (evaluating) the staff						√								√				

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
focuses on soft evidence e.g. walking around and talking to people																		
The school conducts formal research to know its performance												√				√		
The management of the school senses from different sources e.g. being told by a stakeholder or observing trends in the society to know the performance of the school															√			
Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you					√													
The people in the school are living in the past reflecting on the good old days assuming things worked out then and must be good enough to work now and in the future						√												
The people in the school worry only about how to get the immediate tasks done															√			
The people in the school worry about the far future e.g. by investing heavily in research and development, training, infrastructure, etc				√	√													
In the school, time is divided into slots where only one task is performed at a time													√			√		

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	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
In the school, the emphasis is posed on what has been accomplished within a phase e.g. semester, month, a year rather than short time slots	√									√								
In the school, time for accomplishing things is tied to targets, milestones, or deadlines which are specified in advance and related to external deadlines like labour market needs													√					
In the school, I need to collaborate and work with other staff who work at different time pace from mine	√			√														
If a decision is to be made and there is a disagreement between two options, the most experienced person will decide on the best option				√	√													
If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority vote												√	√	√				
I trust elder-statesmen experiences in the school													√	√				
Other functional groups act exactly according to the information I provide them	√																	
In the school, if a group/committee worked on a project, the group will present their achievement as a group		√														√		

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
In the school, if a group/committee worked on a project, each member tries to outshine others by showing his own accomplishment													√	√				
Managers in the school have an open-door policy											√		√					
If I have an issue or idea I can go straight to the management of the school to talk to them about it						√		√					√					
People (management, teachers, staff) in the school view each other based on stereotypes e.g. on job type, religion, nationality, etc																	√	
People (management, teachers, staff)in the school view each other in a very particularistic way as whole person															√			
Social rewards such as status, task and project allocation are assigned on the basis of the person's background, family, religion, nationality, etc.											√							
Social rewards such as status, task and project allocation are assigned on the basis of the person's accomplishments											√							
Work to me is a higher priority in comparison to my family or having a family				√	√													
Work to me is a higher priority in							√				√							

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
comparison to myself-interests																		
The school has groups in which outsiders are treated with hostility or indifference whereas insiders become privy to some more secret assumptions								√										
Staff are allocated working spaces that others do not share simultaneously		√																
Total number of beliefs affected	7	11	4	7	8	4	6	6	6	3	8	5	16	12	5	5	3	5

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
Mission of the school is based upon meeting the needs of the students	√	√						√					√					
Mission of the school is based upon meeting the needs of the Ministry of Education											√		√					
Mission of the school is based upon meeting the needs of the parents		√																
Mission of the school is based upon meeting the needs of labour market			√															√
Mission of the school is based upon meeting the needs of universities							√											
Mission of the school is based upon the school's core competence and what it can offer the society											√	√	√		√		√	
Space allocation to staff symbolises status, position, or power							√	√										
Space allocation to staff symbolises perceived importance of the job							√											
Space allocation to staff symbolises the needs of the job			√		√					√			√					

	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
Resource allocation to staff symbolises status, position, or power							√											
Resource allocation to staff symbolises perceived importance of the job												√						
Resource allocation to staff symbolises the needs of the job										√			√		√			
Rewards either tangible or intangible in the school are given for loyalty				√														
Rewards either tangible or intangible in the school are given for successful performance of whatever jobs were allocated by higher authority									√	√								
Rewards either tangible or intangible in the school are given for demonstrating high performance in the main job										√		√	√		√			
Rewards either tangible or intangible in the school are given for adhering to the school's procedures		√					√			√								
Rewards either tangible or intangible in the school are given for adhering to the employment regulations either set by the ministry of education of civil service bureau							√			√								
The school rewards by the financial incentive at the end of the year									√	√								
The school rewards by other tangible				√			√			√								

	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
rewards e.g. desk, computer, resources																		
The school rewards by promotion to a higher ranked position											√			√				
The school rewards by giving gratitude certificate											√							
The school rewards by verbal thanking									√									
The school rewards by nomination to attend a course or join a committee outside the school												√	√		√			
Formal rank in the school is based on personal background e.g. family									√									
Formal rank in the school is based on education credential									√									
Formal rank in the school is based on loyalty									√									
The school takes action against staff who can not control their classrooms													√					
The school takes action against staff who does not achieve high performance in their main area													√					
When action is taken against a member of staff, the school gives a warning letter						√												√
When action is taken against a member of staff, the school admonishes the							√			√								

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Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
member of staff																		
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Why do we need to change! It has always been done this way"								√								√		
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our headmaster/head of section wants to do it this way"											√							
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "This decision belongs to the curriculum department, other departments or committees"	√																	
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "We debated the new approach, committees studied it, and the approach is still sound, so we will do it"				√					√	√								
When the way of doing a specific thing				√			√			√	√							

	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Let's try it out this way (i.e. the new approach) and evaluate how we are doing"																		
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our research shows that this new approach is the right way to do it"											√							
Influence, control and authority in the school is based on the network of support and alliances		√				√					√							
Influence, control and authority in the school is based on access and control of agendas	√																	
Influence, control and authority in the school is based on control of rewards																		√
In the school the management assumes that the staff are lazy and must therefore be motivated with economic incentives and controlled by constant surveillance												√						
In the school the management assumes that the staff are self-		√					√											

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
motivated and need to be challenged and channelled, not controlled																		
In the school the management assumes that the staff are motivated by the need to relate well to their peers and membership groups										√			√					
In the school the management assumes that the staff are difficult to manage as they always adapt in relation to what they have been told														√				
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them now, but we will develop ourselves to deal with the situation"	√						√	√									√	√
In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me							√											√
In the school, no one has a defined area of control such as subordinates, budget, physical space, or any other resources												√						
If I have a defined area of control, I would be insulted to be given advice in		√										√						

	Academic Sections						Mechanical Sections						Electrical Sections					
Cultural Beliefs	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
that area																		
The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis					√								√				√	
The management of the school in assessing (evaluating) the staff focuses on soft evidence e.g. walking around and talking to people							√			√	√	√						
Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you										√			√					
The people in the school are living in the past reflecting on the good old days assuming things worked out then and must be good enough to work now and in the future	√																	
The people in the school worry about the far future e.g. by investing heavily in research and development, training, infrastructure, etc																		
In the school, time is divided into slots where only one task is performed at a time		√					√			√								
In the school, the emphasis is posed							√											

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Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
on what has been accomplished within a phase e.g. semester, month, a year rather than short time slots																		
In the school, time for accomplishing things is tied to targets, milestones, or deadlines which are specified in advance and related to external deadlines like labour market needs										√								
In the school, I need to collaborate and work with other staff who work at different time pace from mine							√	√				√						
If there is a disagreement between two teachers (staff) about the accuracy of a machine/equipment, they will resolve the disagreement by testing the machine/equipment				√		√				√						√		
If a decision is to be made and there is a disagreement between two options, the most experienced person will decide on the best option										√	√							
If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority vote	√																√	
If a decision is to be made and there is a disagreement between two options, the person with the highest authority				√		√						√						

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Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
will decide																		
I trust elder-statesmen experiences in the school													√					
Other functional groups act exactly according to the information I provide them												√						
In the school, if a group/committee worked on a project, the group will present their achievement as a group													√					
In the school, if a group/committee worked on a project, each member tries to outshine others by showing his own accomplishment	√										√							
People (management, teachers, staff) in the school view each other based on stereotypes e.g. on job type, religion, nationality, etc												√						
People (management, teachers, staff)in the school view each other in a very particularistic way as whole person		√																
Social rewards such as status, task and project allocation are assigned on the basis of the person's accomplishments							√			√								
Work to me is a higher priority in comparison to my family or having a family										√	√							

Cultural Beliefs	Academic Sections						Mechanical Sections						Electrical Sections					
	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools	Nationality	Committee Membership	Age	Years Worked in the School	Always Worked in a school	Worked in Other Technical Education Schools
Work to me is a higher priority in comparison to myself-interests			√															
Relationships in the school are mainly work relationships											√							
Staff are allocated working spaces that others do not share simultaneously							√			√								
Total number of beliefs affected	7	8	3	4	4	4	18	6	7	20	12	13	14	2	4	2	4	5

Appendix 12 – Change in the belief type of the different occupational levels

Cultural Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2
Mission of the school is based upon meeting the needs of the students	√				√				√				√			
Mission of the school is based upon meeting the needs of the Ministry of Education	√				√				√				√			
Mission of the school is based upon meeting the needs of the parents		√			√				√					√		
Mission of the school is based upon meeting the needs of other governmental departments		√				√				√						√
Mission of the school is based upon meeting the needs of labour market		√			√					√			√			
Mission of the school is based upon meeting the needs of universities		√				√				√			√			
Mission of the school is based upon the school's core competence and what it can offer the society		√				√					√		√			
Space allocation to staff symbolises status, position, or power				√	√				√				√			
Space allocation to staff symbolises perceived importance of the job	√				√				√				√			
Space allocation to staff symbolises the needs of the job	√							√	√				√			
Resource allocation to staff symbolises status, position, or power	√						√					√				√
Resource allocation to staff symbolises perceived importance of the job	√						√		√				√			
Resource allocation to staff symbolises the needs of the job	√							√				√	√			
Rewards either tangible or intangible in the school are given for loyalty				√			√				√				√	
Rewards either tangible or intangible in the school are given for successful performance of whatever jobs were allocated by higher authority		√					√		√				√			
Rewards either tangible or intangible in the school are given for demonstrating high performance in the main job			√					√					√	√		
Rewards either tangible or intangible in the school are given for doing jobs	√				√					√						√

Cultural Beliefs	Case School									Control School							
	Pre				Post					Pre				Post			
	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2		Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2
other than the main job																	
Rewards either tangible or intangible in the school are given for adhering to the school's procedures				√			√					√				√	
Rewards either tangible or intangible in the school are given for adhering to the employment regulations either set by the ministry of education of civil service bureau				√	√							√					√
The school rewards by the financial incentive at the end of the year		√						√				√			√		
The school rewards by other tangible rewards e.g. desk, computer, resources			√					√		√							√
The school rewards by promotion to a higher ranked position		√			√							√				√	
The school rewards by giving gratitude certificate	√				√					√				√			
The school rewards by verbal thanking			√				√					√					√
The school rewards by nomination to attend a course or join a committee outside the school		√					√					√			√		
The school rewards by other forms of intangible rewards e.g. bigger project, asked to join a committee in the school or to participate in an activity, etc		√			√							√					√
Formal rank in the school is based on personal background e.g. family				√	√					√						√	
Formal rank in the school is based on education credential	√				√							√				√	
Formal rank in the school is based on loyalty				√				√		√						√	
The school takes action against staff who break the employment regulations either set by the ministry of education or civil service bureau				√	√					√					√		
The school takes action against staff who break the school's procedures				√	√									√	√		
The school takes action against staff who can not control their classrooms			√					√		√					√		
The school takes action against staff who does not achieve high performance in their main area				√	√							√			√		

Cultural Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2
The school takes action against staff who does not accomplish whatever jobs were allocated to the person by higher authority				√	√							√				√
The school takes action against staff who does not meet specified targets				√	√							√	√			
When action is taken against a member of staff, the school gives a warning letter	√				√				√							√
When action is taken against a member of staff, the school admonishes the member of staff	√						√				√			√		
When action is taken against a member of staff, the school halts in position		√			√							√	√			
When action is taken against a member of staff, the school deprives the staff from projects and important tasks	√						√					√	√			
When action is taken against a member of staff, the school ends the contract of the staff or transfer him to another school				√				√	√			√				
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Why do we need to change! It has always been done this way"		√					√			√				√		
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our headmaster/head of section wants to do it this way"	√						√		√				√			
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "This decision belongs to the curriculum department, other departments or committees"		√					√				√					√
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "We debated the new approach, committees studied it, and the approach is still sound, so we will do it"	√						√				√					√
When the way of doing a specific thing e.g. teaching at the board with chalk is				√				√	√				√			

Cultural Beliefs	Case School									Control School							
	Pre				Post					Pre				Post			
	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2		Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2
questioned and a new approach is proposed, the attitude you take is "Let's try it out this way (i.e. the new approach) and evaluate how we are doing"																	
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our research shows that this new approach is the right way to do it"				√				√		√				√			
Influence, control and authority in the school is based on Personal characteristics and track records e.g. ability to negotiate, survive with your ideas, convince	√					√							√	√			
Influence, control and authority in the school is based on Formal rank and job description	√				√					√				√			
Influence, control and authority in the school is based on the network of support and alliances			√			√						√				√	
Influence, control and authority in the school is based on expertise and knowledge				√	√					√				√			
Influence, control and authority in the school is based on access and control of agendas	√				√								√	√			
Influence, control and authority in the school is based on control of rewards		√			√					√					√		
Influence, control and authority in the school is based on ability to coerce, block, interfere, or punish	√				√					√				√			
In the school the management assumes that the staff are lazy and must therefore be motivated with economic incentives and controlled by constant surveillance			√			√						√				√	
In the school the management assumes that the staff are self-motivated and need to be challenged and channelled, not controlled			√		√					√						√	
In the school the management assumes that the staff are motivated by the need to relate well to their peers and membership groups	√						√					√		√			
In the school the management assumes that the staff are difficult to manage as				√				√					√				√

Cultural Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2
they always adapt in relation to what they have been told																
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do something about them"		√						√	√				√			
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them and have to live with it"				√				√			√					√
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them now, but we will develop ourselves to deal with the situation"			√					√			√					√
In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me				√		√					√				√	
In the school, no one has a defined area of control such as subordinates, budget, physical space, or any other resources		√				√					√					√
If I have a defined area of control, I would be insulted to be given advice in that area	√							√	√							√
The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis		√			√				√				√			
The management of the school in assessing (evaluating) the staff focuses on soft evidence e.g. walking around and talking to people		√			√						√				√	
The school conducts formal research to know its performance	√					√				√				√		
The management of the school senses from different sources e.g. being told by a stakeholder or observing trends in the society to know the performance of the school		√			√						√				√	
Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you		√			√						√		√			
In the school dressing style reflects position, power, and status			√			√					√			√		
The people in the school are living in the past reflecting on the good old days		√				√			√				√			

Cultural Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2
assuming things worked out then and must be good enough to work now and in the future																
The people in the school worry only about how to get the immediate tasks done		√			√				√				√			
The people in the school worry mostly about the near future e.g. mid-term results or end of term results		√			√					√				√		
The people in the school worry about the far future e.g. by investing heavily in research and development, training, infrastructure, etc		√						√	√					√		
In the school, time is divided into slots where only one task is performed at a time		√				√				√					√	
In the school, the emphasis is posed on what has been accomplished within a phase e.g. semester, month, a year rather than short time slots		√					√			√				√		
In the school, time for accomplishing things is tied to targets, milestones, or deadlines which are specified in advance and related to external deadlines like labour market needs		√			√				√					√		
In the school, time for developing and accomplishing tasks is characterised by "things will take as long as they will take" as things can not be speeded up or slowed down		√				√			√					√		
In the school, I need to collaborate and work with other staff who work at different time pace from mine		√			√				√						√	
If there is a disagreement between two teachers (staff) about the accuracy of a machine/equipment, they will resolve the disagreement by testing the machine/equipment		√			√					√				√		
If a decision is to be made and there is a disagreement between two options, the most experienced person will decide on the best option		√			√					√			√			
If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority vote		√				√				√				√		
If a decision is to be made and there is a disagreement between two options,		√			√				√					√		

Cultural Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2
the person with the highest authority will decide																
I trust elder-statesmen experiences in the school		√				√			√				√			
I do not trust anyone experience in the school unless it (the argument) is proven to me		√				√					√				√	
The information I provide other functional groups are fully understood		√				√			√							√
Other functional groups act exactly according to the information I provide them		√				√			√				√			
In the school, if a group/committee worked on a project, the group will present their achievement as a group		√				√						√	√			
In the school, if a group/committee worked on a project, each member tries to outshine others by showing his own accomplishment		√			√					√						√
Managers in the school have an open-door policy		√				√				√				√		
If I have an issue or idea I can go straight to the management of the school to talk to them about it		√				√						√		√		
People (management, teachers, staff) in the school view each other based on stereotypes e.g. on job type, religion, nationality, etc	√							√		√						√
People (management, teachers, staff)in the school view each other in a very particularistic way as whole person		√			√					√				√		
Social rewards such as status, task and project allocation are assigned on the basis of the person's background, family, religion, nationality, etc.	√					√					√		√			
Social rewards such as status, task and project allocation are assigned on the basis of the person's accomplishments		√				√				√			√			
Work to me is a higher priority in comparison to my family or having a family		√					√			√				√		
Work to me is a higher priority in comparison to myself-interests		√					√			√			√			
The vocabulary people in the school use to communicate (e.g. terms, humour, procedures e.g. rewards, punishment) with each other leads to a lot of misunderstanding	√				√				√					√		

Cultural Beliefs	Case School								Control School							
	Pre				Post				Pre				Post			
	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2	Integrated	Differentiated	Fragmented	Same Direction Over Range Of 2
The school has groups in which outsiders are treated with hostility or indifference whereas insiders become privy to some more secret assumptions		√						√				√				√
Relationships in the school are friendship and familial relationships		√			√							√			√	
Relationships in the school are mainly work relationships		√				√				√				√		
Staff are allocated working spaces that others do not share simultaneously		√			√				√						√	
Total number of beliefs in each category	**25**	**44**	**12**	**20**	**35**	**27**	**21**	**18**	**39**	**19**	**19**	**24**	**40**	**22**	**20**	**19**

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Appendix 13 – Comparing the Schools' beliefs descriptively Pre and Post

Schools

Cultural Dimensions and Beliefs	Case				Control				Similarities							
	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Case vs. Control Pre	Case vs. Control Post	Pre vs. Post Case	Pre vs. Post Control	No Change Case	No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
Assumptions about External Adaptation Issues																
Mission																
Mission of the school is based upon meeting the needs of the students	4		√		4			√		√					√	√
Mission of the school is based upon meeting the needs of the Ministry of Education	4				4				√	√	√	√	√	√		
Mission of the school is based upon meeting the needs of the parents	3				2	-1			√		√		√			
Mission of the school is based upon meeting the needs of other governmental departments	3				2	-2					√		√			
Mission of the school is based upon meeting the needs of labour market	4	1			3	-1										
Mission of the school is based upon meeting the needs of universities	2		√		3							√		√		
Mission of the school is based upon the school's core competence and what it can offer the society	3				2.5	-1					√		√			
Means of Getting Work Done																
In the school, I have a defined area of control which could include my subordinates, budget, physical space, and all other resources that were allocated to me	3				3				√	√	√	√	√	√		
In the school, no one has a defined area of control such as subordinates, budget, physical space, or any other resources	4	2			3	1		√	√							
If I have a defined area of control, I would be insulted to be given advice in that area	1			√	1					√		√		√	√	

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Cultural Dimensions and Beliefs	Case — Mode Post	Case — Mode Changed from Pre by	Case — +ve change in range	Case — -ve change in range	Control — Mode Post	Control — Mode Changed from Pre by	Control — +ve change in range	Control — -ve change in range	Sim — Case vs. Control Pre	Sim — Case vs. Control Post	Sim — Pre vs. Post Case	Sim — Pre vs. Post Control	Sim — No Change Case	Sim — No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
Means of Staff Performance Measurement																
The management of the school in assessing (evaluating) the staff focuses on hard evidence such as written evidence, statistical data and analysis	5	1			4.5	-0.5		√								
The management of the school in assessing (evaluating) the staff focuses on soft evidence e.g. walking around and talking to people	1				1				√	√	√	√	√	√		
Gathering Information about Performance Mechanism																
The school conducts formal research to know its performance	2		√		4	2	√									
The management of the school senses from different sources e.g. being told by a stakeholder or observing trends in the society to know the performance of the school	2			√	2	-2		√								
Assumptions about Internal Integration Issues																
Common Language																
The vocabulary people in the school use to communicate (e.g. terms, humour, procedures e.g. rewards, punishment) with each other leads to a lot of misunderstanding	2		√		2		√									
Groups																
The school has groups in which outsiders are treated with hostility or indifference whereas insiders become privy to some more secret assumptions	1				1				√	√	√	√	√	√		
Influence and Power																
Influence, control and authority in the school is based on Personal characteristics and track records e.g. ability to negotiate, survive with your ideas, convince	4				4						√	√	√	√		
Influence, control and authority in the school is based on Formal rank and job description	4		√		4		√		√	√						

Schools

Cultural Dimensions and Beliefs	Case				Control				Similarities							
	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Case vs. Control Pre	Case vs. Control Post	Pre vs. Post Case	Pre vs. Post Control	No Change Case	No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
Influence, control and authority in the school is based on the network of support and alliances	3			√	3	-1		√								
Influence, control and authority in the school is based on expertise and knowledge	4	0.5			4					√		√		√	√	
Influence, control and authority in the school is based on access and control of agendas	3		√		3				√		√			√		
Influence, control and authority in the school is based on control of rewards	3				2	-1			√		√		√			
Influence, control and authority in the school is based on ability to coerce, block, interfere, or punish	3		√		3		√			√						
Formal Rank																
Formal rank in the school is based on personal background e.g. family	1				1				√	√	√	√	√	√		
Formal rank in the school is based on education credential	4				4				√	√	√	√	√	√		
Formal rank in the school is based on loyalty	4		√		3	-1	√									
Rewards for																
Rewards either tangible or intangible in the school are given for loyalty	3	-2	√	√	3						√			√		
Rewards either tangible or intangible in the school are given for successful performance of whatever jobs were allocated by higher authority	3	-1	√		4		√									
Rewards either tangible or intangible in the school are given for demonstrating high performance in the main job	4	1			4		√									
Rewards either tangible or intangible in the school are given for doing jobs other than the main job	4	-1			4								√	√		
Rewards either tangible or intangible in the school are given for adhering to the school's procedures	2	-1			3	-1										
Rewards either tangible or intangible in the school are given for adhering to	4	1			4	1			√	√						

Cultural Dimensions and Beliefs	Case Mode Post	Case Mode Changed from Pre by	Case +ve change in range	Case -ve change in range	Control Mode Post	Control Mode Changed from Pre by	Control +ve change in range	Control -ve change in range	Case vs. Control Pre	Case vs. Control Post	Pre vs. Post Case	Pre vs. Post Control	No Change Case	No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
the employment regulations either set by the ministry of education of civil service bureau																
Rewards by																
The school rewards by the financial incentive at the end of the year	3	-1			4	1										
The school rewards by other tangible rewards e.g. desk, computer, resources	1		√		1					√		√		√	√	
The school rewards by promotion to a higher ranked position	3	2	√		2.5	-0.5	√									
The school rewards by giving gratitude certificate	5				5				√	√	√	√	√	√		
The school rewards by verbal thanking	4	1	√		5	2	√		√							
The school rewards by nomination to attend a course or join a committee outside the school	3				3		√					√	√			
The school rewards by other forms of intangible rewards e.g. bigger project, asked to join a committee in the school or to participate in an activity, etc	3			√	3		√		√							
Action for																
The school takes action against staff who break the employment regulations either set by the ministry of education or civil service bureau	5		√		4	-0.5										
The school takes action against staff who break the school's procedures	4.5	-0.5	√		4		√									
The school takes action against staff who can not control their classrooms	3		√		4						√			√		
The school takes action against staff who does not achieve high performance in their main area	4	0.5	√		4					√		√		√	√	
The school takes action against staff who does not accomplish whatever jobs were allocated to the person by higher authority	4				4		√					√	√			
The school takes action against staff who does not meet specified targets	4	1	√		4	1	√		√							
Action by																

Cultural Dimensions and Beliefs	Case				Control				Similarities							
	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Case vs. Control Pre	Case vs. Control Post	Pre vs. Post Case	Pre vs. Post Control	No Change Case	No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
When action is taken against a member of staff, the school gives a warning letter	4			√	4			√								
When action is taken against a member of staff, the school admonishes the member of staff	3				4	1					√		√			
When action is taken against a member of staff, the school halts in position	3				3				√	√	√	√	√	√		
When action is taken against a member of staff, the school deprives the staff from projects and important tasks	2.5	-0.5		√	3	1		√								
When action is taken against a member of staff, the school ends the contract of the staff or transfers him to another school	3				3		√		√		√		√			
Norms of Intimacy																
Relationships in the school are friendship and familial relationships	4	2			3.1	-0.9		√								
Relationships in the school are mainly work relationships	2	-2			4				√			√		√		
Assumptions about Space and Time																
a. Assumptions about Space																
Distance and Relative Placement																
Managers in the school have an open-door policy	4	-1			4					√		√		√	√	
Staff are allocated working spaces that others do not share simultaneously	2			√	4	3	√									
The Symbolic of Space																
Space allocation to staff symbolises status, position, or power	4	1	√		4		√									
Space allocation to staff symbolises perceived importance of the job	4				4				√	√	√	√	√	√		
Space allocation to staff symbolises the needs of the job	3	-1			4			√	√							
The Symbolic of Resources																

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Schools

Cultural Dimensions and Beliefs	Case				Control				Similarities							
	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Case vs. Control Pre	Case vs. Control Post	Pre vs. Post Case	Pre vs. Post Control	No Change Case	No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
Resource allocation to staff symbolises status, position, or power	3	-1		√	4		√		√							
Resource allocation to staff symbolises perceived importance of the job	3	-1		√	4		√		√							
Resource allocation to staff symbolises the needs of the job	5	1			4	-1										
Body Language																
Managers in the school welcoming/greeting gesture is very warm, indicating closeness and happiness in meeting you	4		√		5							√		√		
In the school dressing style reflects position, power, and status	1				1	-1		√		√	√		√			√
b. Assumptions about Time																
Time Orientation																
The people in the school are living in the past reflecting on the good old days assuming things worked out then and must be good enough to work now and in the future	2				1	-1		√	√		√		√			
The people in the school worry only about how to get the immediate tasks done	4		√		4					√		√		√	√	
The people in the school worry mostly about the near future e.g. mid-term results or end of term results	2	-2		√	2	-2		√								
The people in the school worry about the far future e.g. by investing heavily in research and development, training, infrastructure, etc	1.5	-0.5		√	2				√		√		√			
Monochronic and Polychronic																
In the school, time is divided into slots where only one task is performed at a time	4				2	-2		√	√		√		√			
In the school, the emphasis is posed on what has been accomplished within a phase e.g. semester, month, a year rather than short time slots	4	2	√		2	-2										

Cultural Dimensions and Beliefs	Case				Control				Similarities							
	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Case vs. Control Pre	Case vs. Control Post	Pre vs. Post Case	Pre vs. Post Control	No Change Case	No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
Planning Time and Development Time																
In the school, time for accomplishing things is tied to targets, milestones, or deadlines which are specified in advance and related to external deadlines like labour market needs	4				4			√			√		√			
In the school, time for developing and accomplishing tasks is characterised by "things will take as long as they will take" as things can not be speeded up or slowed down	2				2				√	√	√	√	√	√		
Temporal Symmetry and Pacing																
In the school, I need to collaborate and work with other staff who work at different time pace from mine	1	-1			1	-1										
Assumptions about Reality and Truth																
Physical Reality																
If there is a disagreement between two teachers (staff) about the accuracy of a machine/equipment, they will resolve the disagreement by testing the machine/equipment	4				4	0	√			√	√		√			√
Social Reality																
If a decision is to be made and there is a disagreement between two options, the most experienced person will decide on the best option	4				4				√	√	√	√	√	√		
If a decision is to be made and there is a disagreement between two options, the decision will be based on the majority votem	2	-2		√	4		√									
If a decision is to be made and there is a disagreement between two options, the person with the highest authority will decide	4	-1	√		5				√		√		√			
Individual Reality																
I trust elder-statesmen experiences in the school	4	-1			4	-1										

Cultural Dimensions and Beliefs	Case				Control					Similarities							
	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range		Case vs. Control Pre	Case vs. Control Post	Pre vs. Post Case	Pre vs. Post Control	No Change Case	No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
I do not trust anyone experience in the school unless it (the argument) is proven to me	1	-1		√	1			√									
Moralism and Pragmatism																	
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Why do we need to change! It has always been done this way"	1			√	1						√		√		√	√	
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our headmaster/head of section wants to do it this way"	4		√		4		√										
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "This decision belongs to the curriculum department, other departments or committees"	3	-1		√	3	-1				√							
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "We debated the new approach, committees studied it, and the approach is still sound, so we will do it"	4				4					√	√	√	√	√	√		
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Let's try it out this way (i.e. the new approach) and evaluate how we are doing"	4		√		4		√				√						
When the way of doing a specific thing e.g. teaching at the board with chalk is questioned and a new approach is proposed, the attitude you take is "Our research shows that this new approach is the right way to do it"	4				4					√	√	√	√	√	√		
What is Information?																	
The information I provide other functional groups are fully understood	4				4					√	√	√	√	√	√		

Cultural Dimensions and Beliefs	Case				Control				Similarities							
	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Case vs. Control Pre	Case vs. Control Post	Pre vs. Post Case	Pre vs. Post Control	No Change Case	No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
Other functional groups act exactly according to the information I provide them	2	-2		√	4			√								
Assumptions about Human Nature, Activity, and Relationships																
Nature of Human Nature (Theory X, Theory Y, and Theory Z)																
In the school the management assumes that the staff are lazy and must therefore be motivated with economic incentives and controlled by constant surveillance	2	1	√		2	1	√									
In the school the management assumes that the staff are self-motivated and need to be challenged and channelled, not controlled	3		√		4	1		√								
In the school the management assumes that the staff are motivated by the need to relate well to their peers and membership groups	4				3		√				√		√			
In the school the management assumes that the staff are difficult to manage as they always adapt in relation to what they have been told	1	-0.5			2	1										
Appropriate Human Activity																
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do something about them"	4				4		√		√		√		√			
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them and have to live with it"	1			√	2	1										
The attitude in the school towards the problems it faces e.g. weak students or students vandalism is "we can do nothing about them now, but we will develop ourselves to deal with the situation"	1				1	-2		√			√		√			
Individualism and Groupism																
In the school, if a group/committee worked on a project, the group will present	4				4			√		√	√		√			√

Schools

Cultural Dimensions and Beliefs	Case				Control				Similarities							
	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Mode Post	Mode Changed from Pre by	+ve change in range	-ve change in range	Case vs. Control Pre	Case vs. Control Post	Pre vs. Post Case	Pre vs. Post Control	No Change Case	No Change Control	Changed to be similar to Cont/	Changed to be similar to Case
their achievement as a group																
In the school, if a group/committee worked on a project, each member tries to outshine others by showing his own accomplishment	2	-2		√	2		√									
Power Distance																
If I have an issue or idea I can go straight to the management of the school to talk to them about it	1				1	-3		√		√	√		√			√
Basic Characteristics of Role Relationships																
People (management, teachers, staff) in the school view each other based on stereotypes e.g. on job type, religion, nationality, etc	2		√		2	1		√								
People (management, teachers, staff)in the school view each other in a very particularistic way as whole person	1	-1		√	1							√		√		
Social rewards such as status, task and project allocation are assigned on the basis of the person's background, family, religion, nationality, etc.	1				1			√	√		√		√			
Social rewards such as status, task and project allocation are assigned on the basis of the person's accomplishments	2			√	4		√									
Activity Orientation																
Work to me is a higher priority in comparison to my family or having a family	2				2				√	√	√	√	√	√		
Work to me is a higher priority in comparison to myself-interests	5		√		4	-1	√		√							
Total Changes			29	21			29	23	37	31	35	33	35	33	8	5

Appendix 14 – The Students' Questionnaire

Tick √only one box for each sentence

1. Strengthening the principle of self-learning among students (17)

No		Arabic		English		Maths		Science		IT		Technical Drawing		Eng. Theory		Physics		Religion		Eng. Practical	
		A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA
1	The teacher gives the students homework																				
2	The teacher requests from the students to do researches on the internet																				
3	The teacher requests from the students to prepare researches and reports																				

2. Employ a variety of modern teaching methods (15)

No		Arabic		English		Maths		Science		IT		Technical Drawing		Eng. Theory		Physics		Religion		Eng. Practical	
		A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA
1	The teacher split the class into smaller working groups																				
2	The teacher stimulates the students thinking by asking challenging questions																				
3	The teacher discusses with the students the topic thoroughly																				

3. Effective class management (15)

No		Arabic		English		Maths		Science		IT		Technical Drawing		Eng. Theory		Physics		Religion		Eng. Practical	
		A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA
1	The teacher involves all or most of the students in the classroom discussion																				
2	The teacher builds strong relationships with his students and try to know their personalities, problems, and issues																				
3	The teacher controls the classroom and solves any arising issues																				

4. Employing Formative Evaluation methods (16)

No		Arabic		English		Maths		Science		IT		Technical Drawing		Eng. Theory		Physics		Religion		Eng. Practical	
		A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA	A	DA
1	The teacher uses verbal questions during the lesson																				
2	The teacher conducts short tests during the lesson																				
3	The teacher provides guidance to the students on their work/performance during the lesson																				

5. Creating a school environment that will stimulate the teaching and learning processes (19)

No		Agree	Disagree
1	There are educational posters in the different buildings of the school		
2	The classrooms in the school are clean, organised and suitable for teaching and learning		
3	There is a system in the school to encourage the students to use the Learning Resource Centre		
4	There are enough, clean toilets for the students in the school		
5	The school looks after the plantation areas		
6	The school has a health and safety system in place		
7	The school canteen is suitable for the number of students		
8	The school canteen provides a variety of healthy meals		
9	Drinking water is available to all		
10	The venue for the morning march is suitable		
11	The air conditioning of the classrooms is suitable		

6. Enhancing the positive social and behavioural values possessed by the students (5)

No		Agree	Disagree
1	The teacher stresses to the students the importance of adhering to the school's regulations and adhering to the classes times		
2	The teacher stresses to the students the importance of adhering to the teachers' instructions, and instructions for tasks and homework		
3	The teacher stresses to the students the importance of using the public places in the school reasonably		
4	The teacher stresses to the students the importance of group work and the importance of collaboration between themselves		
5	The teacher stresses to the students the importance of respecting and appreciating others		
6	The teacher stresses to the students the importance of looking after the tools and equipments in their sections		

7. Utilise different means to inform students about the different professions and education paths and to educate them about the labour market required behaviours (7)

No		Agree	Disagree
1	The vocational guide in the school organised conferences and colloquiums about the work ethics required in the labour market		
2	The vocational guide in the school distributed booklets/leaflets about the work ethics required in the labour market		
3	The vocational guide in the school organised field visits to industries and companies in order to expose the students to the work ethics required in the labour market		
4	The vocational guide in the school informed me about the labour market vacancies		
5	The vocational guide in the school assisted me in choosing a course that is in line with the labour market vacancies		
6	The vocational guide in the school assisted me in knowing my abilities and interests, and indicated which vacancies in the labour market matches them		

Appendix 15 – The Teachers' Questionnaire

Note:
1. A: Agree, DA: Disagree.

Tick ✓ only one box for each sentence

1. Follow-up to students behavioural, social and psychological problems and treat them in an educational manner (20)

No		Agree	Disagree
1	The social guide apprehends the students' problems (behavioural, social, and psychological) from staff and deals with them in an educational manner		
2	The social guide collaborates with teachers in diagnosing the students problems		
3	The social guide follows-up the students problems through classroom visits		
4	The social guide assists the students in solving their problems (behavioural, social, psychological, and special needs)		

2. Effective communication between the school workers and the outside society to enhance the educational development (22)

No		Agree	Disagree
1	The communication system between the school management and staff is effective		
2	The communication system between the staff themselves is effective		
3	The guardian board has an effective role in the communication process between the school and the students guardians		
4	The school creates projects and programmes to serve the community		
5	The school organises field trips to industries for its staff		

3. Creating a school environment that stimulates the teaching and learning processes (19)

No		Agree	Disagree

1	There are educational posters in the different buildings of the school		
2	The classrooms in the school are clean, organised and suitable for teaching and learning		
3	There is a system in the school to encourage the students to use the Learning Resource Centre		
4	There are enough, clean toilets for the students in the school		
5	The school looks after the plantation areas		
6	The school has a health and safety system in place		
7	The school canteen is suitable for the number of students		
8	The school canteen provides a variety of healthy meals		

4. Enhancing the positive social and behavioural values of the students (5)

No		Agree	Disagree
1	The students adhere to the school's regulations and adhere to classes times		
2	The students adhere to teachers' instructions, and instructions for tasks and homework		
3	The students use public places reasonably		
4	The students respect group work and collaboration between themselves		
5	The students respect and appreciate others		
6	The students look after the tools and equipments in their sections		

5. Applying a healthy and a clear system of incentives and motivation (12)

No		Agree	Disagree
1	The management of the school pay tributes to the staff who participate in the school committees and activities		
2	The management of the school pay tributes to the distinguished staff		
3	The school has clear criteria for giving financial incentives		
4	The criteria for financial incentives are publicised to all the staff in the school		

6. Organising social events, attracting and satisfying the majority of staff (13)

415

No		Agree	Disagree
1	The school organises trips for staff to create a strong community		
2	The school organises internal parties/gathering events to create a strong community		
3	The school organises cultural competition to help creating a stronger community		

Appendix 16 – Goals, and Performance Measures Staff are Measured by and Want to be Measured by

Goals of the Case School Pre

The Goals of the School as seen by the Head of Sections

The goals of the schools as seen by the teachers

Improve the students' educational and practical skills levels

Discipline

Satisfying the needs of parents

Provide educational services to all levels

Accomplish the goals of the local community and the goals of companies

Provide the students guidance and motivate them for education

Develop the students based on the curriculum set by the curricula department

Achieve first positions in competitions mainly sheikh khalifa prize

Develop teachers and their performance

Build a strong community, improve the relationships between staff and improve their belongingness to the school

Develop teachers and their performance

Develop the students to be good citizens able to serve their country

Graduate the highest number of students regardless of their educational attainment

Improve the quality of the educational process

Accomplish the requirements of the Ministry of Education and satisfy them

Improve the behaviours and values of students

Develop the students' knowledge and skills to enable them join universities or higher education colleges and institutes

Develop the students' knowledge and skills to satisfy the requirements of the labour market

Develop the students and prepare them for a challenging future where they need to solve problems and innovate

40
30
20
10

36.4
24.7
14.3
16.9
10.4
9.1
11.7
10.4
11.7
6.5
3.9
3.9
9.1
5.2
5.2
1.3
1.3
1.3
0

Goals of the Case School Post

The Goals of the School as seen by the Head of Sections (n=10)

Improve the students' educational and practical skills levels

Develop the students and prepare them for a challenging future where they need to solve problems and innovate

Improve the learning and educational environment

Develop the students' knowledge and skills to satisfy the requirements of the labour market

uild a strong community, improve the relationships between staff and improve their belongingness to the school

Develop the students' knowledge and skills to enable them join universities or higher education colleges and institut

Accomplish the goals of the local community and the goals of companies

Develop teachers and their performance

Improve the quality of the educational process

Develop the students to be good citizens able to serve their country

60 50 40 30 30 20 10 10 10 10 10 0 10 20 30 60

The goals of the schools as seen by the teachers (n=72)

Improve the students' educational and practical skills levels

Develop the students and prepare them for a challenging future where they need to solve problems and innovate

Develop the students' knowledge and skills to satisfy the requirements of the labour market

Develop the students' knowledge and skills to enable them join universities or higher education colleges and institut

Improve the behaviours and values of students

Accomplish the requirements of the Ministry of Education and satisfy them

Improve the quality of the educational process

Develop the students to be good citizens able to serve their country

Build a strong community, improve the relationships between staff and improve their belongingness to the school

Achieve first positions in competitions mainly sheikh khalifa prize

Develop the students based on the curriculum set by the curricula department

Discipline

Accomplish the goals of the local community and the goals of companies

I don't know

Show

Satisfying the needs of students

Graduate the highest number of students

Improve the learning and educational environment

50
40
30
20
15.3
9.7
10
40.3
9.7
9.7
8.3
5.6
6.9
4.2
1.4
4.2
1.4
2.8
1.4
2.8
1.4
27.8

Measuring Performance Criteria for the Case School Pre

Performance criteria Head of Sections' performance is measured by and want to be measured by

Endeavour, honesty and sincerity in doing the job

Jobs accomplished for the school management and the frequency of interaction with it

Extra curriculum activities e.g. developing extra homework or developing/using other methods than conventional method

Accomplishing whatever jobs (not educational) allocated by higher authority

Students results and success percentages

Discipline, and adherence to the school procedures

Education, knowledge and experience in ones area and continuously improving them

Teaching and interaction of students with teacher in classroom (Usually measured by classroom visits)

Relationships and collaboration with colleagues

Managing the operations of the section

No Comments

Collaboration with the management of the school

50
40
30
16.7
20
10
0

45.5
33.3
36.4
9.1
9.1
18.2
8.3
9.1
16.7
16.7
16.7
25.0
8.3
9.1
9.1
8.3
9.1

→ % of Head of Sections want their performance to be measured by

■ % of Head of Sections believe their Performance is measured by

Performance criteria Teachers' performance is measured by and want to be measured by

Opinion of Head of Section

Jobs accomplished for the school management and the frequency of interaction with it

Endeavour, honesty and sincerity in doing the job

Extra curriculum activities e.g. developing extra homework or developing/using other methods than conventional method

I don't know

Relationships and collaboration with colleagues

Written evidence which includes class-preparation notes

Accomplishing whatever jobs (not educational) allocated by higher authority

Relationships with your superior

Participation in accomplishing the projects of the section

Adherence and flexibility to do work/participate in works without arguing

Teaching and interaction of students with teacher in classroom (Usually measured by classroom visits)

Opinion of the Curriculum Specialists or a personnel from the Ministry of Education

Student satisfaction

Initiative

Students results and success percentages

Managing tools and resources

No Comments

Dealing with and controlling the students (classroom)

Relationships with the students

Dress and appearance

Discipline, and adherence to the school procedures

Amount of external (outside the school) work

Active participation in the school activities and projects

Education, knowledge and experience in ones area and continuously improving them

Working and participating in the school committees

50
40
30
20
17.7
11.4
10.1
16.5
36.4
11.7 10
20.8
49.4
7.6
24.1
13.0
26.0
0

— % of Teachers want their performance to be measured by

— % of Teachers believe Performance is measured by

Measuring Performance Criteria for the Case School Post

Performance criteria Head of Sections' performance is measured by and want to be measured by

Legend:
- % of Head of Sections believe their Performance is measured by (n=9)
- % of Head of Sections want their performance to be measured by (n=9)

Axis labels:
- Endeavour, honesty and sincerity in doing the job
- Accomplishing of whatever jobs (not educational) allocated by higher authority
- Teaching and interaction of students with teacher in classroom (Usually measured by classroom visits)
- Discipline, and adherence to the school procedures
- Working and participating in the school committees
- Active participation in the school activities and projects
- Students results and success percentages
- Dealing with and controlling the students (classroom)
- Education, knowledge and experience in ones area
- Jobs accomplished for the school management
- I don't know
- Improvement and development (Personal & Projects)
- Students results and success percentages
- Collaboration with the management of the school
- Opinion of the school management

Scale: 0, 10, 20, 30, 40, 50

Performance criteria Teachers' performance is measured by and want to be measured by

% of Teachers believe Performance is measured by (n=69)

% of Teachers want their performance to be measured by (n=66)

Goals of the Control School Pre

The Goals of the School as seen by the Head of Sections

Improve the students' educational and practical skills levels

Develop the students and prepare them for a challenging future where they need to solve problems and innovate

Develop the students based on the curriculum set by the curricula department

Develop the students' knowledge and skills to satisfy the requirements of the labour market

Accomplish the goals of the local community and the goals of companies

Develop the students' knowledge and skills to enable them join universities or higher education colleges and institut

Improve the learning and educational environment

Develop teachers and their performance

Develop the students to be good citizens able to serve their country

50
40
30
20
10
0

42.9
14.3
14.3
42.9
14.3
14.3
14.3
42.9

The goals of the schools as seen by the teachers

Improve the students' educational and practical skills levels

Improve the learning and educational environment

Develop the students and prepare them for a challenging future where they need to solve problems and innovate

Develop the students' knowledge and skills to enable them join universities or higher education colleges and institut

Graduate the highest number of students

Develop the students' knowledge and skills to satisfy the requirements of the labour market

Satisfying the needs of students

Discipline

Improve the behaviours and values of students

Show

Accomplish the requirements of the Ministry of Education and satisfy them

Accomplish the goals of the local community and the goals of companies

Improve the quality of the educational process

Develop the students based on the curriculum set by the curricula department

Develop the students to be good citizens able to serve their country

Develop teachers and their performance

Graduate the highest number of students regardless of their educational attainment

40
30 27.9
20
9.8
10
6.6
4.9
1.6
6.6
9.8
3.3
9.8
8.2
1.6
3.3
18.0
13.1
6.6
9.8
0
29.5

Goals of the Control School Post

The Goals of the School as seen by the Head of Sections - n=4

The goals of the schools as seen by the teachers - n=45

Improve the students' educational and practical skills levels

Satisfying the needs of students

Satisfying the needs of parents

Accomplish the goals of the local community and the goals of companies

Develop the students based on the curriculum set by the curricula department

Achieve first positions in competitions mainly sheikh khalifa prize

Develop teachers and their performance

Develop the students to be good citizens able to serve their country

Improve the quality of the educational process

Accomplish the requirements of the Ministry of Education and satisfy them

Improve the quality of the educational process

Improve the behaviours and values of students

Develop the students' knowledge and skills to enable them join universities or higher education colleges and institut

Develop the students' knowledge and skills to satisfy the requirements of the labour market

Develop the students and prepare them for a challenging future where they need to solve problems and innovate

50
40
30
20
10
0

26.7
42.2
6.7
6.7
2.2
13.3
8.9
22.2
4.4
13.3
6.7
4.4
15.6
15.6

Measuring Performance Criteria for the Control School Pre

Performance criteria Head of Sections' performance is measured by and want to be measured by

- Endeavour, honesty and sincerity in doing the job
- Extra curriculum activities e.g. developing extra homework or developing/using other methods than conventional method
- I don't know
- Adherence and flexibility to do work/participate in works without arguing
- Initiative for development and improvement
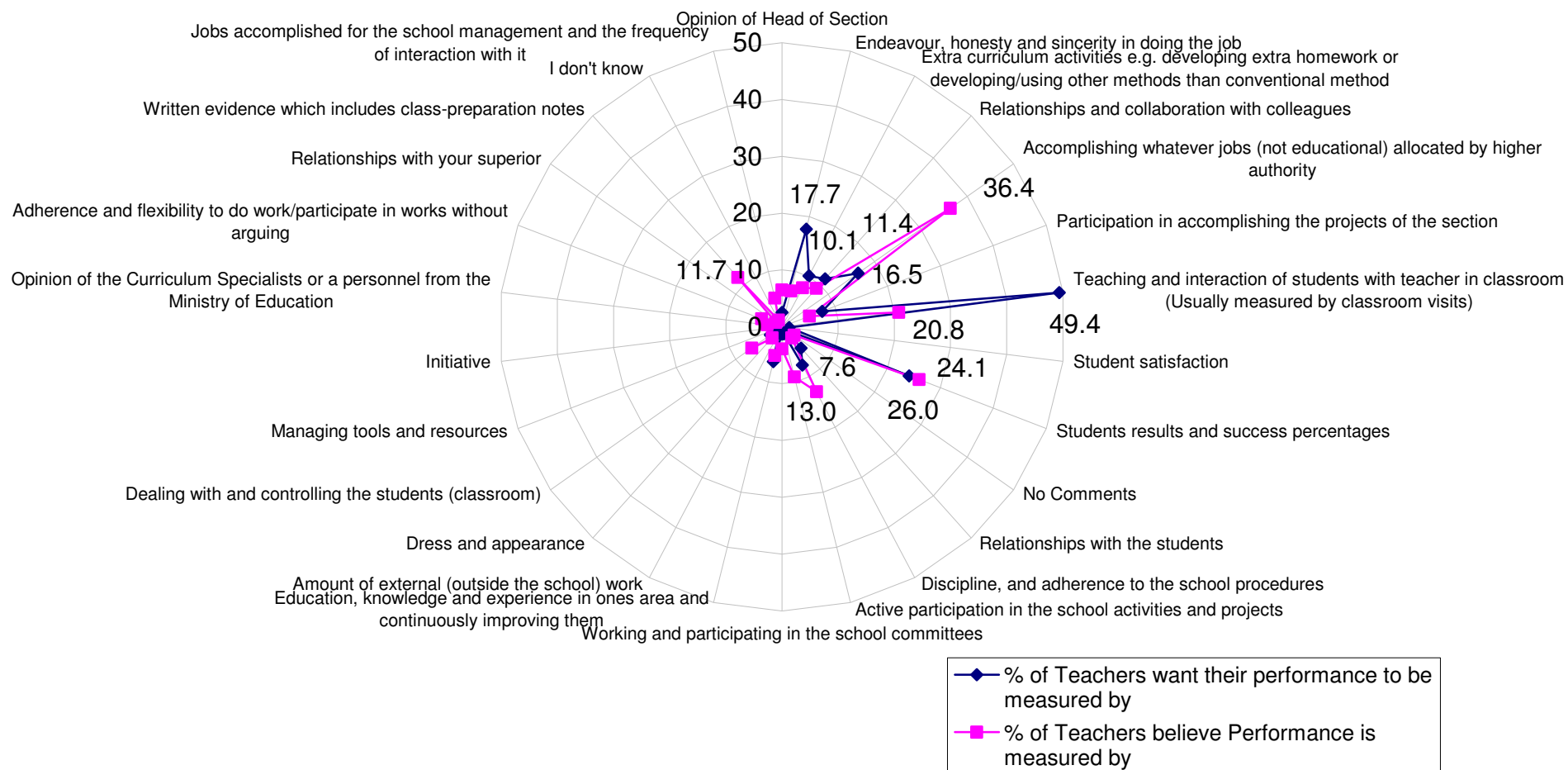- Accomplishing of whatever jobs (not educational) allocated by higher authority
- Education, knowledge and experience in ones area and continuously improving them
- Relationships and collaboration with colleagues
- Active participation in the school activities and projects
- Participation in accomplishing the projects of the section
- Students results and success percentages
- Discipline, and adherence to the school procedures
- Teaching and interaction of students with teacher in classroom (Usually measured by classroom visits)

Legend:
- % of Head of Sections believe their Performance is measured by
- % of Head of Sections want their performance to be measured by

Performance criteria Teachers' performance is measured by and want to be measured by

Radar chart axes (clockwise from top):

- Opinion of Head of Section
- Opinion of the Curriculum Specialists or a personnel from the Ministry of Education
- Endeavour, honesty and sincerity in doing the job
- Adherence and flexibility to do work/participate in works without arguing
- Extra curriculum activities e.g. developing extra homework or developing or using other methods than conventional in
- Relationships and collaboration with colleagues
- Accomplishing of whatever jobs (not educational) allocated by higher authority
- Participation in accomplishing the projects of the section
- Discipline, and adherence to the school procedures
- Written evidence which includes class-preparation notes
- Teaching and interaction of students with teacher in classroom (Usually measured by classroom visits)
- Active participation in the school activities and projects
- Working and participating in the school committees
- Dealing with and controlling the students (classroom)
- No Comments
- Students results and success percentages
- Jobs accomplished for the school management and the frequency of interaction with it
- Relationships with the students
- Education, knowledge and experience in ones area and continuously improving them
- I don't know
- Opinion of the School Management
- Personality of staff
- Improvement and development (Personal & Projects)
- Student satisfaction
- Collaboration with the management of the school
- Accomplishment of administrative work
- Initiative for development and improvement

Scale: 10, 20, 30, 40, 50

Legend:
- ◆ % of Teachers believe Performance is measured by
- ■ % of Teachers want their performance to be measured by

Measuring Performance Criteria for the Control School Post

Performance criteria Head of Sections' performance is measured by and want to be measured by
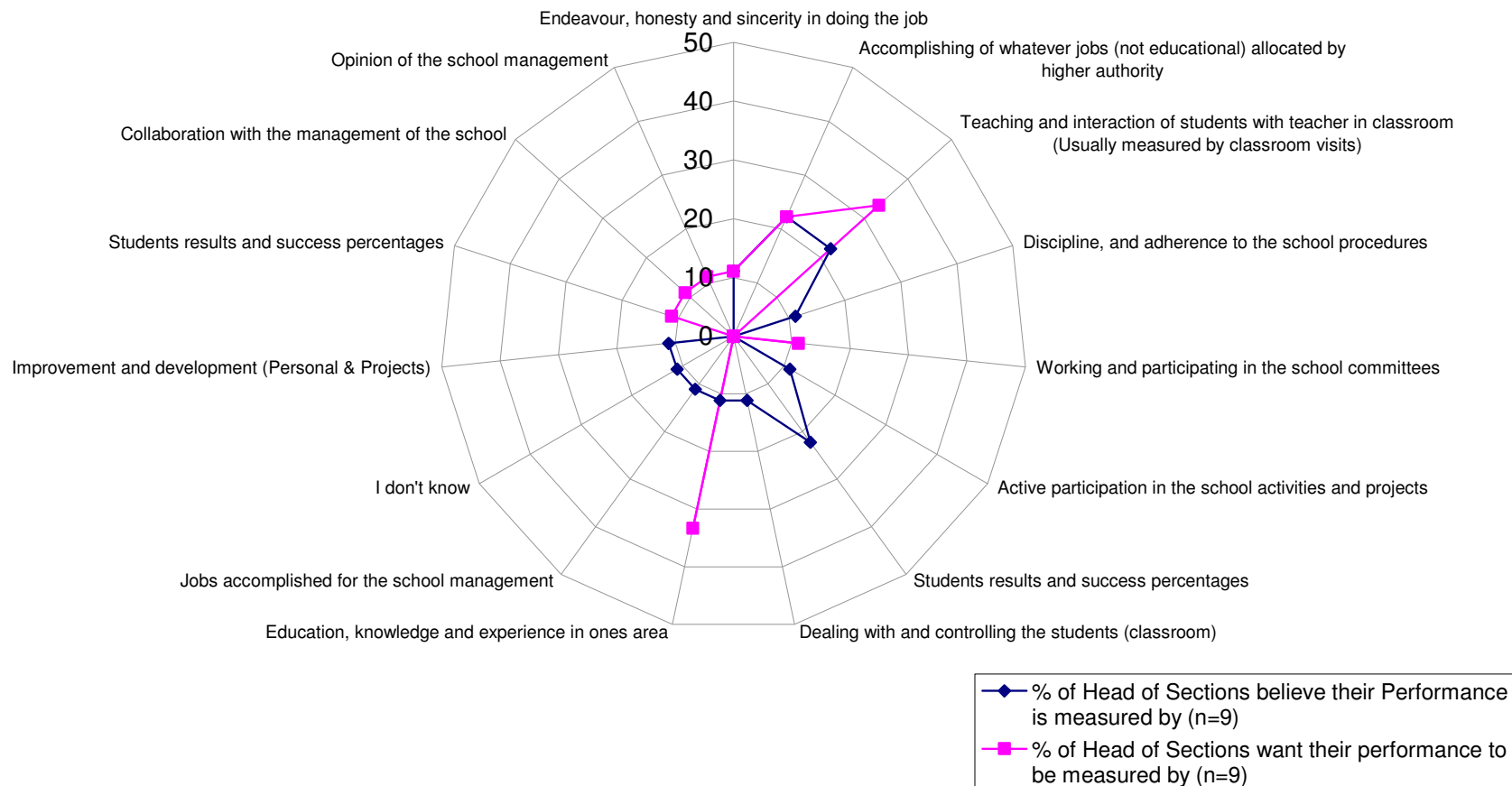
Performance criteria Teachers' performance is measured by and want to be measured by
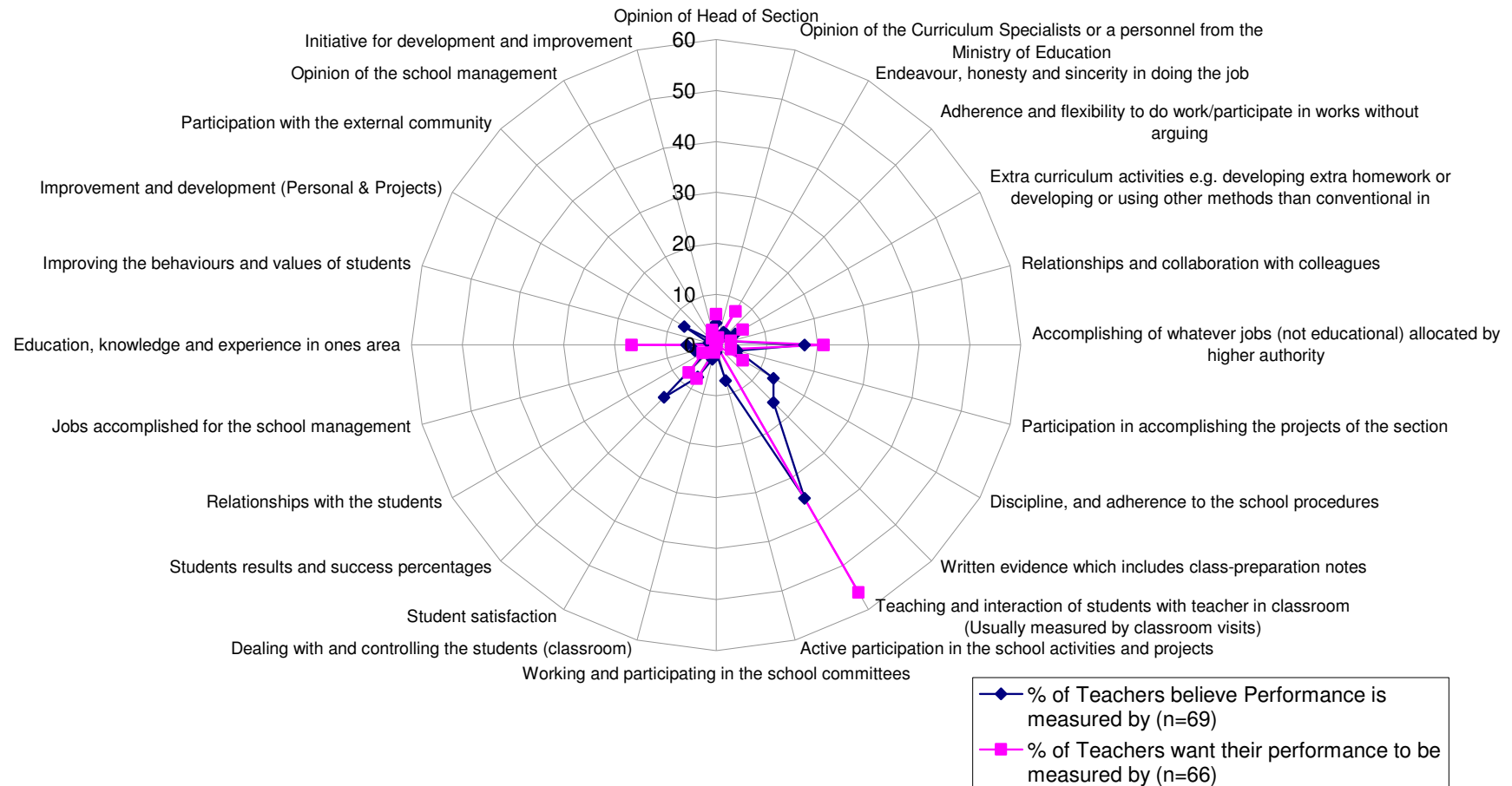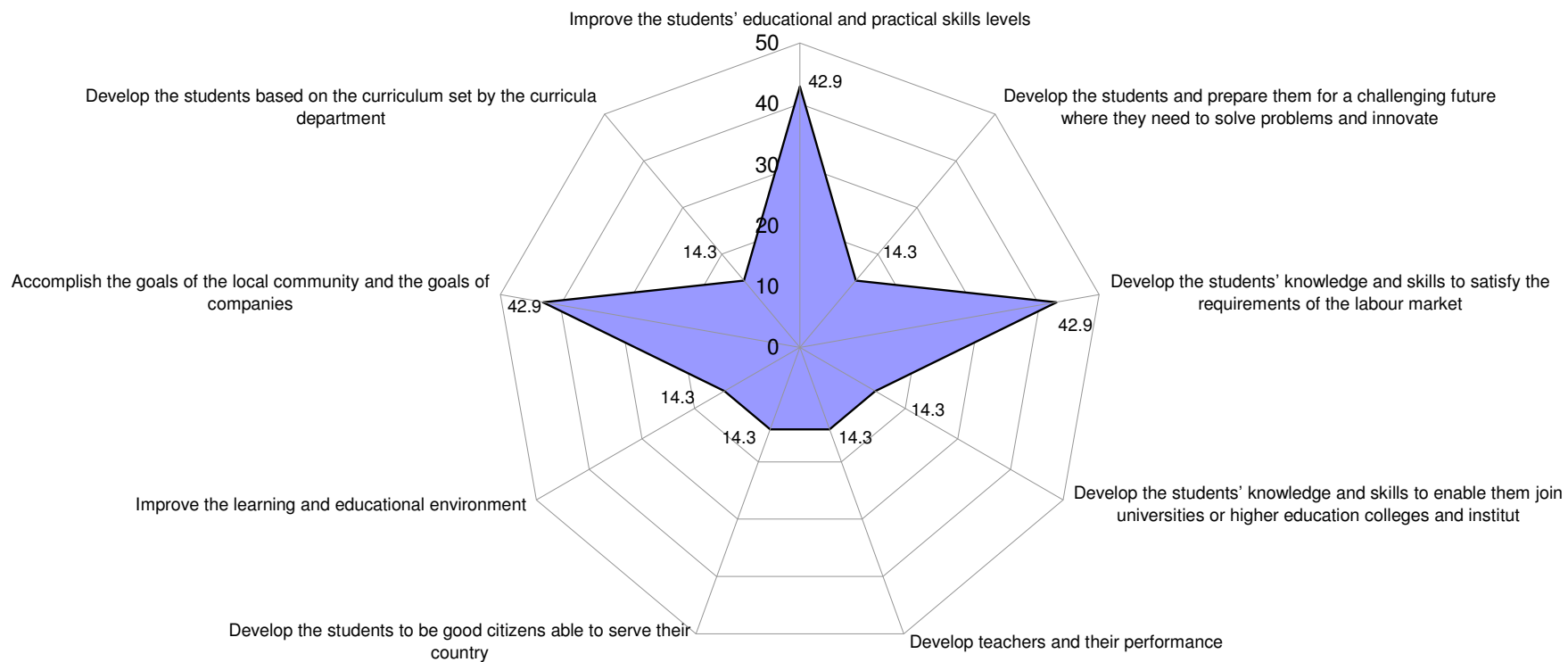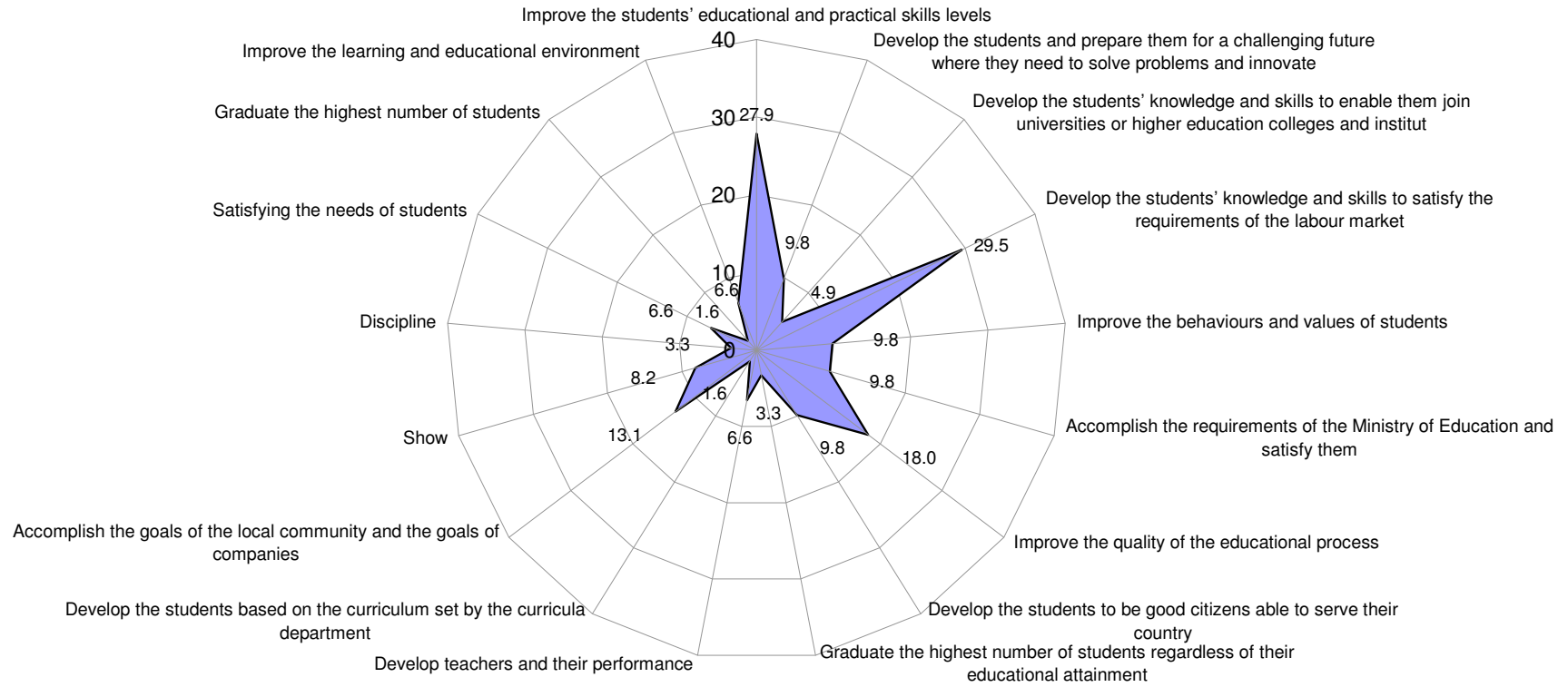

Opinion of Head of Section

Personality of staff

Collaboration with the management of the school
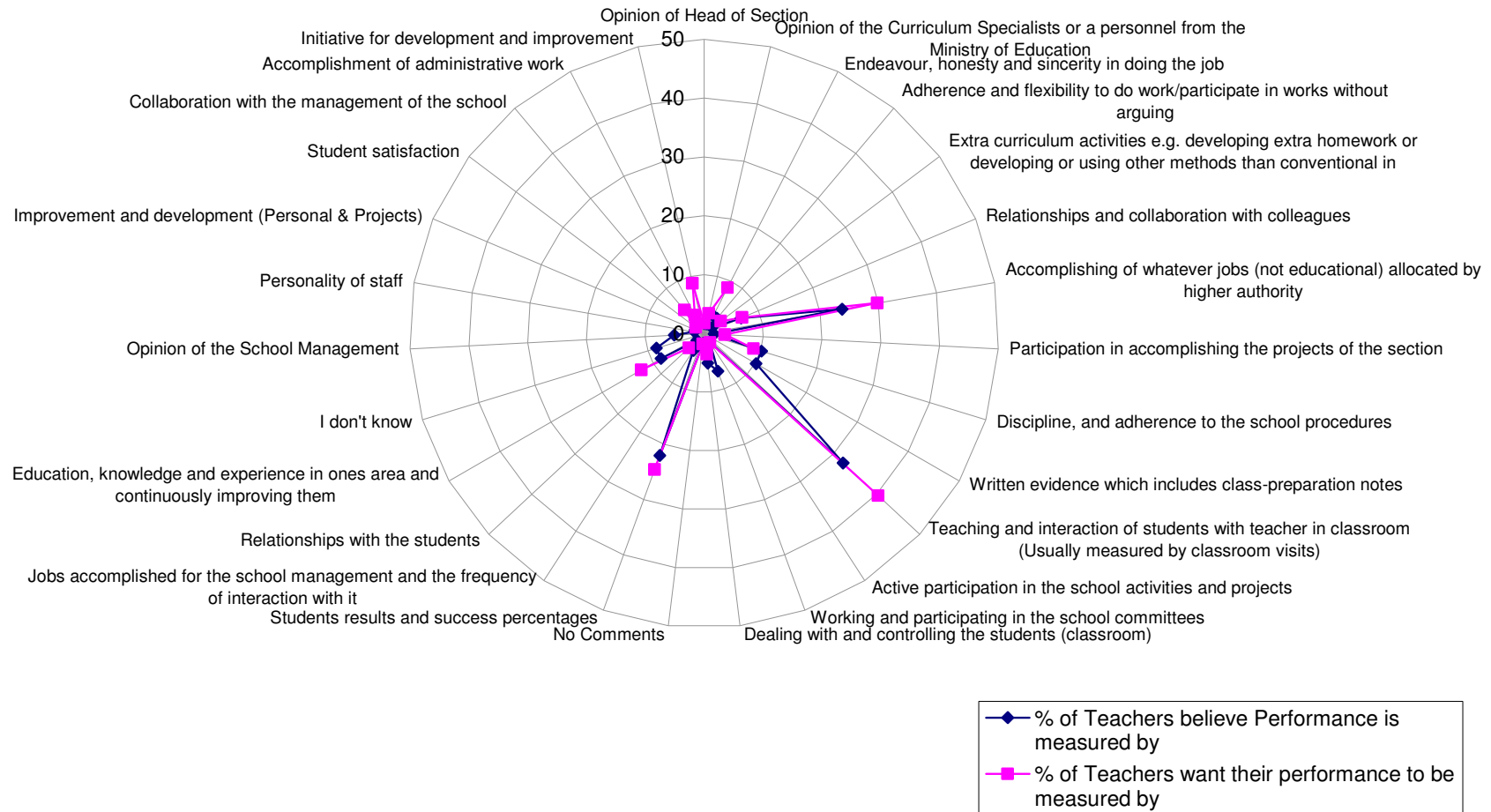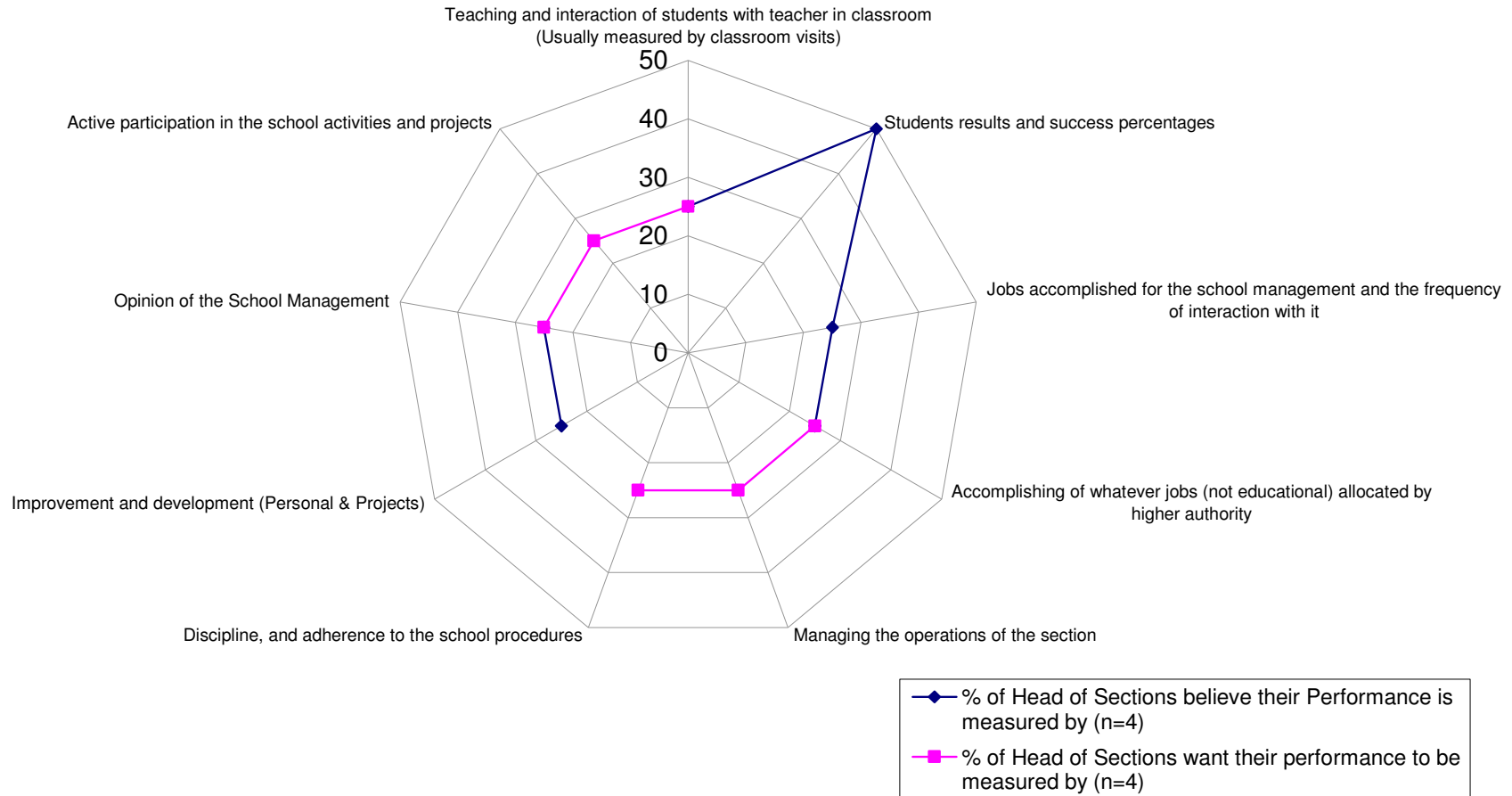
Ability to solve problems and negotiate

Initiative for development and improvement

Opinion of the School Management

Improvement and development (Personal & Projects)

Jobs accomplished for the school management and the frequency of interaction with it

Students results and success percentages

Dealing with and controlling the students (classroom)

Education, knowledge and experience in ones area and continuously improving them

Student satisfaction

Working and participating in the school committees

Active participation in the school activities and projects

Teaching and interaction of students with teacher in classroom (Usually measured by classroom visits)

Discipline, and adherence to the school procedures

Participation in accomplishing the projects of the section

Accomplishing of whatever jobs (not educational) allocated by higher authority

Relationships and collaboration with colleagues

Extra curriculum activities e.g. developing extra homework or developing or using other methods than conventional in

Adherence and flexibility to do work/participate in works without arguing

Endeavour, honesty and sincerity in doing the job

Opinion of the Curriculum Specialists

40
30
20
10
0

% of Teachers believe Performance is measured by (n=44)

% of Teachers want their performance to be measured by (n=41)