Leading School Improvement in Saudi Arabian Schools: Investigating Total Quality Management Practices.

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ABSTRACT

This study explores the implementation of the total quality management (TQM) approach in education in Saudi as a step towards school improvement. The research was undertaken primarily because there is a paucity of written material that examines (TQM) practices in Saudi Arabian school contexts. The study's significance is in harmonising with substantial changes in the education context in Saudi; it is an attempt to understand, evaluate, and assess the existing practice of (TQM) in some Saudi institutions. The study uses an interpretive research paradigm and qualitative data collection methods to understand the practical experience of adopting TQM. Using a case study design, the researcher used a survey, semi-structured interviews, notetaking, and documentary analysis to interpret perceptions of TQM in some schools across Makkah region in Saudi Arabia. Attention is paid to cultural factors that conflict with and hinder the early practice of (TQM) to build insight from the words and experiences of participants on the challenges of adopting (TQM). The study found that TQM faced considerable cultural challenges and barriers to implementation for school improvement. These challenges largely relate to educational culture and the difficulty of navigating between the Ministry of Education and school principals, and between teachers and principals within schools. The study contributes to knowledge by concentrating on some of the issues and perceptions about how to develop a better perspective on school improvement in Saudi Arabia, as the Kingdom intends to pursue the 2030 Vision, which will have a substantial impact on Saudi institutions.

ACKNOWLEDGEMENTS

DEDICATION

The hard work of more than 4 years is dedicated to my father for his invaluable contribution towards my success; and to my dearest mother- may Allah give her a long and healthy life - for her endless support and prayers.

Also, to my wife for her great support and effort.

DECLARATION

The results and conclusions embodied in this thesis are my own work. None of the material in this thesis has previously been submitted towards any other degree.

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List of Abbreviations

(TQM)	Total Quality Management
(MOE)	Ministry of Education
(DOE)	Directorate of Education
(PE)	Early Adopters of TQM
(PL)	Later Responders to TQM
(OFSTED)	Office for Standards in Education

CHAPTER ONE: INTRODUCTION TO THE STUDY

Introduction

While quality management has been a central element of modern management theory and research, Total Quality Management (TQM) has been perhaps a popular and widely acclaimed of quality management approaches for many organizations. There is a considerable debate in the field of education about the TQM approach to management. This study discusses the dynamics of TQM as an example of the quality management approach in Saudi Arabian schools. Although there may be some agreement across countries regarding what a TQM approach means in general terms, the reality in each context is determined by the history, culture and politics of a particular country. It will be necessary to show what TQM means in theory, explore conceptions of TQM and then to investigate its use in practice in the schools of Saudi Arabia.

This investigation considers the 14 principles of TQM, proposed by Deming (2000), specifically focusing on the education perspective. Indeed, these principles help to institute vibrant, progressive, and widening avenues of self-improvement and education (Scherkenbach 1991). Thus, the study aims to find out the nature of the TQM approach implemented in the Saudi Arabian education sector and how that implementation brings about an increase in school improvements.

To ask, simply, how can TQM be applied in school settings? And towards which ends? Consequently, this study compared the implementation of a TQM approach in Saudi Arabia to other available approaches that focus on social, cultural, and ideological goals along with management. The study adopts Stoll and Lagerweij's (2005) definition of school improvement and school effectiveness, which contends that the aims of any school are to achieve maximum development of its students, and attaining this will result in the

development of educational sectors. In other words, this study seeks to explore multiple perspectives to gain a better understanding of the potential benefits of applying TQM to bring about improvement and effectiveness in Saudi Arabian public schools. The study also pays attention to the improvement initiatives or methods of inquiry that enable stakeholders to contribute information about the planning of their improvement initiatives (Wells and Claxton 2002).

Background to the Study

Education in Saudi Arabia is currently changing and a lot of argument, debate and discussion focusing on the new vision for the state (which is known as the 2030 vision) is taking place, following the early development of Tatweer program and the call from King Abdullah to apply TQM in all sectors including educational field. Even though some development and progress is taking place now compared to previous educational policies; some challenges and factors are still hindering these developments. The Ministry of Education in Saudi Arabia and the local education district circulated some documents to all public schools in Saudi, explaining the necessity of applying TQM in Saudi schools. This has indicated that new initiatives are required and all school leaders should start to implement TQM in their schools. The top management in the education sector outlined how leaders and management in institutions need to shift their response to this demand for change (Government of Saudi Arabia, 2016; Alsubaie and Jones, 2017). One aim of these TQM initiatives is to bring about school improvement in Saudi Arabia. The new governing call aims to increase educational standards in Saudi Arabia and establish ways of school improvements. Therefore, most Saudi public schools have started a process of applying TQM in their daily management, which has led to some confusion about how they are supposed to apply it correctly, even though the education sector has received considerable government attention (Jared, 2017). Because of this debate and discussion on how to apply

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TQM appropriately, the government of Saudi has requested more research on the subject and that is why I have been granted a scholarship to undertake this study. The government demand for TQM was made in preparation for the vision of 2030. Given these constraints, achieving educational reform in Saudi Arabia requires transformations in the roles of educational leaders and teachers, and standards of student performance. Management strategies in education sectors should also shift in response to these initiatives. Similarly, the role of principals and teachers must be changed by the realm of the educational reform that is taking place in Saudi Arabia. The principal's role should also evolve into a multi-faceted amalgamation of management and leadership (Normore, 2010).

As part of this ambition, the Saudi government, has in the last decade initiated a series of policy and programs. For example in January 2009, the government released a circular (No. 42/5/8/10/17) directing the 83 Education Directorates in the country to "introduce TQM" as part of the school management mantra (Alruwaili, 2013, p.27). The circular was issued just before a four-day national conference for education leaders. The conference had facilities for only 1,382 invited guests, and as with similar recent events, they included Directors of Directorates, Deputy Directorate Directors, the Education Ministry's senior most decision-makers, policy and protocol officials in charge of the strategic planning and development of the national education program, educational quality consultants, head teachers, and specialist teachers.

Statement of the Research Problem

For the above reasons, the study will initially explore and evaluate the adoption of TQM in Saudi public schools toward school improvement, as proposed by Scheerens and Demeuse (2005), and then include the adoption that would help to reach the "goals of school effectiveness and school improvement" by Creemers (1996, p.21). Thereafter, the study will focus on the perceptions of school leaders and teachers for school effectiveness and

improvement as proposed by Stoll et al., (1996) when "merging school effectiveness and school improvement" (p. 113), and finally consider the recommendations on how to advance the existing practice on TQM in Saudi Arabian schools taking into consideration education contexts internationally, as proposed by Stoll and Lagerweij (2005), to focus on the TQM standards as a research variable. The research problem faced by the study is the fact that little is known about how (TQM) has been implemented in Saudi public schools, and the extent to which these adoptions have contributed to the development of education and attained school improvements.

As distinguished in literature, culture may influence any adoption of ideas or the application of a style of management, so this study would consider investigating some cultural elements that may influence the implementation of (TQM) in Saudi schools. In some cases, cultural belief or values can be barriers to applying change (Little and Leach, 2013).

Rationale of the Research

The rationale for conducting this study responds to the following points:

- Call from King Abdullah Bin Abdullah bin Abdul-Aziz to apply TQM in all sectors of the country including educational sectors with the aim to raise the productivity and effectiveness (Alruwaili, 2013)

- Having worked in the sector of education over than 17 years as an employer and researcher, and as a witness to some early practice of TQM and school improvement, the researcher had the ambition to tackle this subject.

- To understand the initiative of early practice of TQM in Saudi Arabian schools and to compare it with the international standards, as a step towards contributing to the literature available on the subject when the study is completed. In addition to the above, the significance of the study can be summarized in brief: The research is believed to be both important and significant to both the Ministry of Education in

Saudi and educational leadership whether it is as an administrator or teacher at the district or individual school level. As the transformation stage in Saudi has begun to witness some developments in recent years, the term 'TQM has started to be used in all aspects of life and work including school management. This has motivated the researcher to undertake this research and assess its impact on school improvements. The term has also created the need to understand how TQM is interpreted by principals and teachers.

Aim, Research Questions and Objectives of the Study

Aim of the Study

This study primarily investigates the perceptions of school principals and teachers in their understanding of quality improvement processes, and how that may enhance school improvement in Saudi Arabian public schools. In other words, a TQM model has been considered to be a strategic measure that can be used to increase improvement in schools. Thus, the perceptions TQM held by school principals and teachers in particular schools in Saudi Arabia may bring about transformation in those schools, which is the main focus of this study. Consequently, the main aim of this study is to:

➢ Explore and validate a quality management approach that would credibly help educational leaders to select and develop quality improvement processes appropriate to the Saudi Arabian context

This broad aim is broken down into narrow, measurable and specific objectives which the study aims to achieve. In this sense, the study proposes:

a) To explore and review relevant literature on TQM practices from a global perspective.

b) To identify the most significant factors that influence the application of TQM towards school improvement.

c) To investigate school leaders' and teachers' understandings of the notion of TQM.

d) To uncover relevant features that may influence the implementation of TQM in Saudi Arabian schools.

Research Questions

The research is guided by the following questions:

a) How do Saudi Arabian school leaders and teachers perceive TQM?

b) How are TQM practices being implemented in Saudi Arabian schools?

c) What factors facilitate the implementation of TQM by school leaders focusing on improving their schools?

d) How is school improvement being conceptualised and pursued in schools in Saudi Arabia?

Outline of the Thesis

The thesis is organised into six chapters. The content of each chapter can be briefly stated as follows.

Chapter one, the present chapter, consists of the background to the study, statement of the problem, aims and objectives of the study, research questions and significance of the study. The scope of the study, as well as the contribution of the study to general knowledge and the outline of the study are included herein.

Chapter two consists of an extensive review of literature on characteristics of TQM and its implementation in education. The chapter assesses some of the early endeavours to apply TQM in education, drawing out its impact on schools. The chapter also examines the

differences in culture between the significance of such adoption and its consequences for the development and school improvement. The Saudi culture is analysed and its impact on TQM also be discussed.

Chapter three presents the methodology of the study. This study adopts a social constructivist ontology with the orientation that knowledge does not exist independently of the social set-up, but rather what is known is socially constructed. The study's methods and methodologies are described. The chapter provides information on why this approach was undertaken and the benefits of such an approach. This chapter also provides a rationale for the way the sample was selected. This involved inviting all schools in the Makkah region to participate, and then selecting a sample of ten school from the responses characterised as early adopters of TQM(5 schools) and later responders (5 schools). It also outlines the method of data collection and analysis, in which a qualitative case-study approach was used, with in-depth interviews as the key data collection instrument.

Chapter four focuses on detailed presentation of the findings of the research and the experience of adopting a qualitative approach to get a better perspective on the subject.

Chapter five is the discussion. In this chapter the results are synthesised, discussed and analysed using a narrative thematic and format.

Chapter six is the conclusion to the thesis. This chapter discusses how the findings have answered the research questions; it then makes recommendations based on the findings. In this chapter the limitations of the study are also discussed and ideas for further research studies are provided.

CHAPTER 2: REVIEW OF RELEVANT LITERATURE AND RESEARCH

Introduction

The research sought primarily to investigate the application of Total Quality Management (TQM) in schools in pursuit of school improvement in the context of the broad TQM approach being encouraged across all sectors as part of central government policy in Saudi Arabia. The study investigates whether TQM, an approach derived from industry, can effectively optimise opportunities for improvement in the management of Saudi Arabian schools, fostering continuous enhancement of educational provision. A literature review should not simply describe and repeat research which has been done before and thus this study is a critically evaluation of academic examinations and government policies which form the basis of this enquiry. It proposes to investigate the aims and objectives of the study, outlined in Chapter 1, namely

(i) examining TQM practices from a global perspective,

(ii) identifying significant factors that influence the application of TQM in school improvement

(iii) investigating school leaders' and teachers' understandings of the principles of TQM, and

(iv) establish how the implementation of TQM practices will influence improvement in Saudi Arabian schools.

In pursuit of this aim, the following questions were asked by the author in the critical analysis of the value to the study of academic research and literature;

a) What is known and still unknown about implementing the TQM approach in Saudi Arabian public schools, and does it significantly influence or affect teachers' performance and the leadership trends of school principals in Saudi Arabia?

b) Has TQM been implemented in appropriate ways by Saudi Arabian schools, given their unique cultural, political, and social context, a reflection of the context-specific application of TQM?

c) Based on previous experience, what lessons for the institutions and Ministry of Education emerge for the implementation of the TQM approach in Saudi Arabian schools, whether positive or negative, from the perspective of progressive school improvement and what research needs to be undertaken to promote education provision?

The structure of the chapter begins with a brief discussion of the Saudi traditional education framework into which it is proposed to introduce TQM principles to effect procedural and transformational reform. This is followed by a review of the TQM approach to organisational improvement, a brief overview of its origin, history and application to modern management in business where continual competitive performance enhancement is fundamental to the quality of the outcomes produced. Deming's (1982) proposals on quality improvement are examined as the theoretical framework/background to the study, chosen for their relevance and ease of application from commercial organisations to the context of Saudi schools. The critical review of Martinez-Lorente, Dewhurst, and Dale (1998) has proved particularly appropriate in seeking the integration of TQM principles with organisational culture in improvement initiatives for schools.

TQM principles are derived from business practices, "constantly striving for improvement, changing the classic mindset of applying out of date quality check measures everybody else does, modernising the methods, and providing effective training for staff" (Merih, 2017). There is, therefore, an examination and analysis of the literature on the

dynamics of the TQM philosophy and its application and relevance to school improvement including an evaluation of the links between these practices and school management.

A Historical Review of the Saudi Arabian Education System

It is pertinent to the study that there is some understanding of the forces behind educational framework change in Saudi Arabia over the last century, since the foundation of the Kingdom in 1925. The interconnection between commercial and economic needs has driven first the introduction of a formal, limited process of teaching and learning, then as economic and administrative demands of the state grew, reform and development followed (Jamjoom, 2012). The teaching style was authoritarian and learning was by rote.

It ignored the provision of public education for girls until the 1960's and in the following decade an expansion of the secondary school provision for boys. It is indicative of the 20th century view of the government to the value provision of education for its citizens, is somewhat secondary to economic growth and there to support the latter. This section will trace, briefly and succinctly, the knowledge gap in the historical background of Saudi Arabian schools.

Saudi Arabian public schools and the Directorate of Education led the introduction of a formal, organised system of education in Saudi Arabia in 1925 and constituted a limited, male only framework, reflecting the traditional faith and culture of the new Kingdom (Al-Romi, 2001). This 'Kuttab' operated across the Arabian Peninsula, focused on enabling male students to memorise the Holy Quran and read and write in Arabic, although by 1956 only 5% of the population was literate (Lipsley, 1959).

The discovery of oil and the need for its exploitation resulted in a substantial influx of foreign investment and skills as well as personnel and their families who demanded educational provision. The General Directorate of Education was thus compelled to assume

control of all of Saudi Arabia educational affairs and established several additional public schools in 1936, a commencement of the elementary school system (Thomas, 1968). The new Directorate was a minor component of the Ministry of the Interior rather than a separate department, reflected in its inadequate staffing and organisation aims (Al-Romi, 2001, p.15). Education was not a priority despite the newly united kingdom's imperative to build an economy with no appreciable financial resources. It was assisted by Egypt which served as a "supplemental aid for teaching", providing it with a subsidised curriculum and a formal structure (Al-Romi, 2001, p.15).

Developmental Change post-1950 s

As the state became more established the need for "administrators and professional men in medicine, pharmacy, engineering, agriculture, science and education, and such administrators needed advanced forms of education which the traditional system was not able to provide" (Shukri, 1972, p.44). By 1950 the reduction of illiteracy was only one issue facing the Saudi government and education was elevated to a national priority, reflecting the need to build the economy, develop human resources and modernise the country (Al-Romi, 2001). By 1953 therefore, the Ministry of Education thus assumed full responsibility and a mandate to run the country's education system now structured to three levels of education, primary, intermediate, and secondary levels, exclusively for the male population (Thomas 1968).

With the new, more progressive education system rolled out throughout the diverse states that constitute the Kingdom, public education was introduced to the female population, albeit on a limited basis, in gender separate schools (Lipsky 1959, p.92). The management of the education framework was wholly centralised and subject to government control even to the extent of how subjects should be taught (Oyaid, 2009). This allowed no scope for student-centred adaptation of learning, nor any creative autonomy to teachers to ensure

learning was interesting and achieved. This has remained a feature of Saudi teaching throughout the decades and such conservatism still pervades modern theories and practices.

Oil discovery also resulted in the demand by domestic and foreign conglomerates for a "mammoth expansion of the Saudi education system … and huge budgets for the development of human resources" (Abir 1986, p.234). Al-Zaid (1982) asserts the focus of educational provision at the time was to "(a) provide a basic education for all Saudis, (b) teach students basic Islamic principles, and (c) prepare students for work in different fields" (Al-Romi, 2001, p.28).

It little served the interests of commerce or society, religious in its foundation and not subject to the common quality indicators of modern public education systems given its basic nature and Islamic grounding, funded, and monitored by the Saudi Arabian Ministry of Education.

Secondary schools were introduced at the close of 1975 to experiment with a modern form of high school intended to "(a) prepare students for real life by affording them the knowledge and skills they need for employment, (b) meet the needs of the society, (c) allow students select the courses they need, and (d) offer students access to an academic adviser to guide them during studies" (Al-Romi, 2001, p.29). Al Salloom (1995, p.41) suggests that the more contemporary curriculum offers a broad set of choices for students, tailored to "suit their future goals" in which they are encouraged "to take more responsibility and play an active role in shaping their education". Students opting for a science major now had a broader education experience, including mathematics, chemistry, and physics as core subjects, while a liberal arts major has a curriculum defined by religious studies, general studies and/or commercial subjects. The nature of school management and leadership did not change, remaining under the centralised, authoritarian control of the MoE.

Although on the face of it the injection of considerable financial resources and the establishment of schools is a positive development in education provision, it failed to take account of regional and community needs. Management was imposed from central government with little by way of quality control in the assessment of teaching and institutional practices (Alghamdi, 2018). The one-size-fits-all programme was not suited to the diversity of community needs even though the Ministry of Education appeared to become more outward looking in its administration and curriculum development, introducing processes aimed to develop the education system more attuned to national, regional and local needs.

This policy changed substantially in the early 21st century as the government turns its attention to building a more diverse private economy, economic and business imperatives pushing educational reform. Alameen, Male and Palaiologou (2015) summarised succinctly the task ahead for reform when they examined early years education provision in the Kingdom. They sought to determine "to what extent it was possible to behave in line with the concept of pedagogical leadership in the twenty-first century in an Arab Muslim monarchy, dominated by Islam, where directive leadership and control by the state has been the traditional norm" (Alameen, et al., 2015, p.121). Managing more than leading is a style which is predicated on a close relationship with the community the school serves. Little changed in the in the provision of education practices despite an apparent evolution of government policies based on the continuation of the Arabic language and traditions.

The Need for a Change in School Philosophy

There was little evidence in the plans over recent decades of the government in effecting change to secure strategic adaptation to each particular school and community need. In an institution guided by an inspirational leader, Sallis (2005, p.25-32), the framework for planning operations is predicated on

i. Continuous Improvement, a "deliberate and systematic approach to achieving appropriate levels of quality in a consistent fashion that meet or exceed the needs and wants of customers" (p.25)

ii. Kaizen, the breaking down of major schemes into "small projects that seek to build success and confidence, and develop a base for further ventures in improvement"

iii. Changing culture given that "Cultures are essentially conservative and homeostasis is the norm" (p.31)

iv. The upside-down organisation, an absence of control, collaborative focusing on the customer – nevertheless "if TQM is to work it must have the long-term devotion of the senior staff of the institution" to drive reform (p.32) – consistency in strategic plan

v. Keeping close to the customers with all their diverse and contradictory expectations (p.28)

vi. Professionalism of staff comfortable with what they know and understand which aids overcoming of resistance

vii. Quality of learning.

 The interaction of staff and community stakeholders is intended to devise a strategic plan to promote the quality of their school provision, although the societal faith and authoritarian traditions of Saudi culture can be problematic hurdles to overcome, as indeed is the fear of change and risks of failure.

The Saudi government through its various initiatives to diversify and improve the economy now understands that the Kingdom must produce its own highly educated workforce and professions without historical reliance on commercial immigration. It appears that "'integration', seems to be frequently invoked within the discourse on educational reform in global Muslim societies" (Sahin, 2018, p.3). It is from this perspective that Total Quality Management, an effective and adaptable practice in business organisations, is considered in the development of educational practice.

TQM Philosophy as a 'Tool 'for embedding Quality in Change

TQM theory is a tool of management intended to reform practices, which may aid improvement as part of an overall new business strategy but is not the complete answer or resolution to all that is ill in a company. An open approach is taken in this literature research into school improvement in the Saudi context. There is no anticipated universal model which can be transplanted from one country to another, from business to school or indeed from one context to another (Aldaweesh et al., 2013).

It is not expected to find the philosophical key to a future fundamental restructure of education provision in Saudi Arabia, rather the intention is to use the findings of researchers in various parts of the world to provide a basis for planning a change of attitude and vision. Cook (1990, p.40) asserts it "is not a revolution: that would discount and demean all the triumphs of public education. It is not an evolution: that would require the perpetuation of a system [that some assess as] already obsolete. What is needed is a metamorphosis - a total change of form, which presupposes a total change of substance" (Cook, p.40). Much has changed in education practice in Saudi Arabia, and a foundation has been laid for the future that does not need to be fundamentally changed but does require development more suited to modern market needs. To this effect it demands a "change of substance", the traditions and culture of teaching and knowledge accumulation and use, enhanced by a more economically directed purpose to ensure a quality workforce in the globalised market.

In theory TQM complements structural institution reform, and is dependent on innovative visionary leadership and a trained workforce undertaking continuous professional development in knowledge and pedagogical skills, unafraid to try, fail and adapt in pursuit of the quality vision (Farooq et al., 2007, p.90). Whilst these are factors in the development of TQM models, they are nevertheless catalysts for reform, for without a strong and stable foundation, building a new regime will have little success. In the school institutional context

it should be borne in mind "a major challenge that faces Saudi educational leaders, for example, is the lack of learning resources in both rented and purpose-built schools" (Algarni and Male, 2014, p.49). There is a lack of appropriate texts for modern contextual and practical learning, for example, and inadequate teaching skills to raise student knowledge beyond the limited curriculum set by central government (Khan, 2011). It is in this context of leadership, collaboration and resource availability that the theories of TQM are being applied by current government policy and it is these theories that are investigated in the literature review from its genesis in business to school improvement.

Total Quality Management: The Genesis of a new Business Philosophy

At the beginning of the 1980s, quality improvement emerged as a core management approach for manufacturing firms in Japan (Schay, 1993, p.649). The philosophy was however born decades before, "1949, when the Union of Japanese Scientists and Engineers formed a committee of scholars, engineers, and government officials devoted to improving Japanese productivity, and enhancing their post-war quality of life" (Powell 1995, p.15) The Total Quality Management (TQM) ideology of business improvement and continuous performance re-evaluation quickly spread to the US to become the most significant, successful and dominant management model of the twentieth century (Powell, 1995, p.19). The TQM implementation process is best illustrated by Figure 1 below (Chan, Ng and Jee 2012; Juran, 1992; Powell, 1995; Rampa, 2005):

Figure 1: TQM Implementation Process
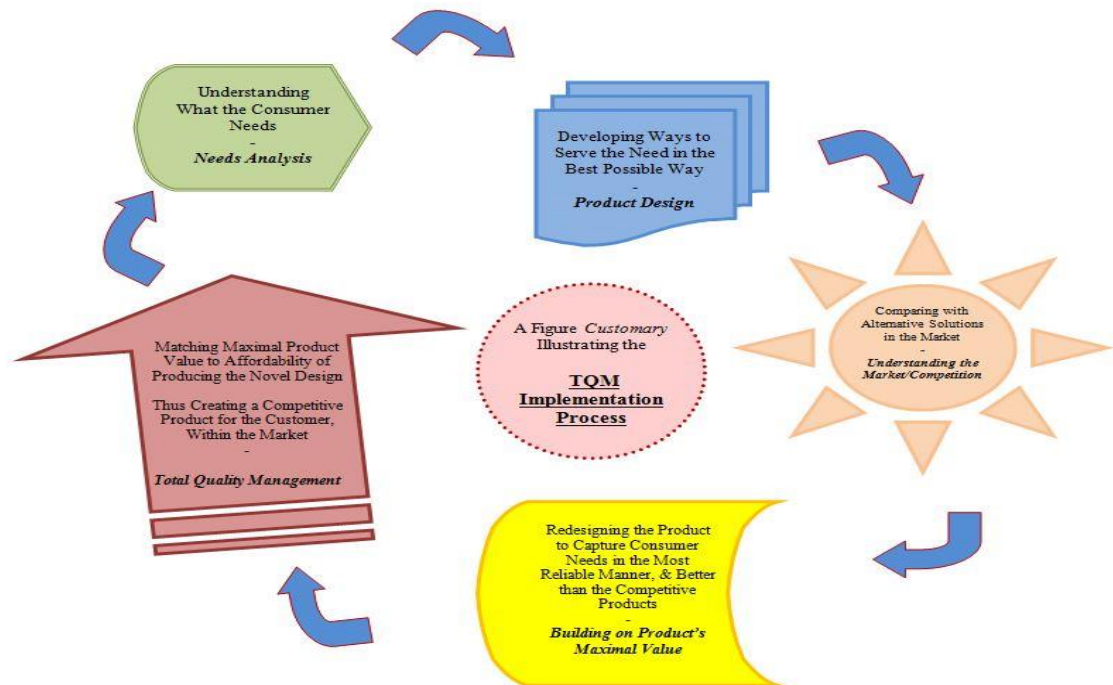
It is a systematic process, characterised by Juran (1992, p.9) as a strategic model "for planning quality into goods and services". It emerges from understanding the needs of the customer, developing a solution, understanding the market landscape, and then redesigning the solution for mass production with maximal value at an affordable price (Rampa, 2005, Chan, Ng and Jee 2012; Juran, 1992; Powell, 1995). Chan, Ng, and Jee (2012) argue that the formula of the theory emerged from the need to improve productivity and simultaneously attain and sustain competitiveness in the market, integrating the need to meet customer requirements.

This study primarily seeks to investigate how the application of TQM to educational settings supports school improvement in Saudi Arabia, in conjunction with demands for improved leadership and continuous improvement. It is therefore proposed to outline and

evaluate the origins and history of the TQM approach in both business and education provision to assess its relevance for the Saudi Arabian school context.

Definition and Principles

Quality Assurance was initially conceived as a measure of value for industrial practices, supply chain management and products (Dahlberg and Moss 2005, p.21). Therein it was associated with such factors as "reliability, delivery, usability, and an acceptable price" which meet the changing consumer needs and demands (Merih, 2017.p.2). The focus on the improvement of products, their quality and delivery is closely associated with supply change management, ensuring that each element of the production process, from raw materials to delivery, meet constantly improving standards (Heizer and Render, 2004). As such, the primary aims are enhancement of the quality of products, reduction of costs and increase in productivity.

The achievement of these goals goes beyond changes to the manufacturing process, which, at the risk of making a trite observation, is operated by employees whose work is managed and organised, developed by the need for performance changes (Krajewski and Larry, 2003). As such, the 'ways of doing things' and the organisational environment must also be adapted. TQM therefore moves beyond the product into the service process that ensures its provision. Organisational performance management is an essential part of the production process and must therefore be incorporated into TQM practice (Demirbag et al., 2006). A good product provides little market advantage without good service therefore have to be inextricably linked and related to ensure an effective TQM process, whether the primary purpose of the business is the provision of services or 'things' (Gupta et al 2005).

Substitute the pertinent elements for students, stakeholders and service users, it is not difficult to visualise the potential of business re-evaluation being applied to public service delivery, including education, thus facilitating improvement in outcomes and reputation.

From its use in industrial ideology quality has become an essential tool in public service provision to yield what Power describes as a "revolution of new public management and the growth of the 'audit society'" (1997, p.57). Scharitzer and Korunka (2000) note that in common with commercial entities producing goods or providing services, the public sector is seeking to make its administration and operation more conscious and attentive to citizen needs. Service delivery is no longer an abstract concept or practice, something which is simply 'done' but is now expected to be a measurable quantity, checked, monitored and reassessed for improvement and value to stakeholder-'consumers' in the delivery of public services (Scheduler and Felix, 2000).

The judgement of quality appears on the face of it relatively simple, Schwepker et al. (2012, p.9) asserting "people seek the benefits that products provide rather than the products per se (such that), specific products or brands represent the available combinations of benefits and costs". Derivatively therefore, judgement of quality is based on several factors, among which are the ability to serve customer needs, a comparison of costs and benefits and indeed the final decision lies with the stakeholder consumer. In the context of education they would range from government to business and most importantly in this study, the students (Pont et al., 2008).

The judgement of the consumer, be it in product quality or of the student in education provision may not however be an accurate reflection of actual value. Schwepker et al. (2010, p.13) notes "customers often have considerable knowledge of existing brands through personal or friends' experiences and exposure to promotion (and) their perceptions may not always correspond to what manufacturers may believe about their own or competitive products". The investigation of student perceptions on the quality of their education is imbued with unmeasurable variables of a personal nature such as relationships and learning behaviours (Hagenauer and Volet, 2014).

In the context of education provision and the qualifications of students who meet the diverse requirements of businesses in Saudi Arabia (Tausif 2017, p.522) "an urgent need to revamp the whole education sector to make it more linked to the industry and markets." There is insufficient focus on innovation and creative thinking in the traditional learning styles and examination teaching structure to prepare the students in public schools for life in a flexible and competitive working environment. Existing teaching methods, such as the teacher-led transmission of knowledge, are obsolete in the global markets (Tausif, 2017). Particularly in higher education, universities, which can be considered as service providers and consumers, are recognising that more imagination in courses and teaching methods are necessary to satisfy student satisfaction and increase prospects for their economic future (Letcher and Neves, 2010). A key aim of the Vision 2030 initiative recognises inadequacies in the current education provision and thus seeks "developing such teaching methods that focus on learner not on teacher and concentrate on inculcating skills, personality development, improving confidence, and promoting spirit of creativeness (MoE, 2019). This is the language of business needs adapted to quality improvement in Saudi schools.

In the business context, the quality judgment must involve more than customer views, including manufacturers, even salespeople who can improve a firm's performance based on moral judgment, understood as "a precursor to ethical behavior… [involving] decisions regarding right and wrong … an instrumental role in salespeople's ethical decision-making" (Schwepker et al., 2012, p.1). The moral code judgment is therefore based on whether the products sold by sales people have the features and quality that justify the cost to the customer.

The judgement of the quality of a product will vary according to the personal demands and perceptions of who is doing the judging, particularly in the provision of public services. Scheduler and Felix (2000, p.130) state that "quality in the public sector" requires

"fundamental quality standards" as judged by a "necessary basic consensus" of the service users, with "additional quality standards" beyond the basic. The complexity of establishing standards and measuring performance does not however undermine the need to measure quality in public management and developing a framework to meet user demands (Yu, To and Lee, 2012, p.420). Evidently, although quality as a basis of value emerged from the perspective of manufactured goods, quality metrics were gradually adopted in public service delivery (Vinni 2007, p.103), to the point where it now constitutes a decision-making framework in public management as argued by Yu, To and Lee (2012).

TQM in a Public Service Context

Vinni (2007, p.103) notes the process witnessed as "the rise of New Public Management (NPM)," where quality of service became a measurable requirement that could be strategically pursued and evaluated. This has resulted in the development of "a subjective, value-based, relative, and dynamic concept" (Dahlberg and Moss 2005, p.87). It is an attribute by which effectiveness is measured in social applications (Dahlberg and Moss 2008, p.3). Determining the quality of education however is political rather than technical, thus quality becomes "a concept with a very particular meaning and inscribed with specific assumptions and values" (Dahlberg and Moss 2008, p.4).

The Vision 2030 initiative highlights the government's awareness of the need for a new education framework, less top-down control of teaching that results in the development of the students' thinking skills and is not simply an exercise of recounting memorised answers in exams. The KSA is not unique as a nation in the need for quality improvement in education, and adaptation to the needs of commerce in a world of rising unemployment, financial and political (White, 2016). In terms of its national youth development and their economic future, such problems require urgent attention in the restructure of their education

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through teacher training, the encouragement of autonomous learning, collaboration and psychological well-being, skills demanded by business (Darling-Hammond et al., 2020).

Similar arguments have been voiced by Goldberg and Cole (2002, p.8) for whom the management of quality in public schools eventually led to quantitative improvements, namely "greater equity and higher student performance". In Saudi Arabia there is an ineffective mechanism with rather unclear and interpretive for judgement of improvement by the MoE, and indeed it is argued that government has been satisfied with compliance with their top-down teaching instructions. The need for change to the quality of Saudi provision, it is suggested, is market driven by the need to change the nature of the economy and provide constructive employment for a burgeoning youth, key factors in the National Transformation Programme and Vision 2030 (Law, 2018). It is argued by the researchers discussed, and indeed by Vlasic et al (2009) who investigated the quality management regime in Croatian education, that TQM principles transplanted from the commercial sector have aided the acceptance of quality management in school leadership and learning provision. The Tatweer Project, introduced into Saudi Arabia in 2007, has yet to produce the quality improvements demanded of the new economy, although it does indicate a step in the direction of reform to encourage student innovation (Elyas and Al-Ghamdi, 2018).

'Quality' is no longer considered a controversial feature of commercial entities and production, demanding evaluation and improvement of standards in a competitive environment. Scholars and practitioners understood quality as a normalising technology, used to establish a set of norms "against which performance should be assessed, thereby shaping policy" within a social context (Moss and Dahlberg, 2008, p.3). This inferred a universal measure or standard for comparison in a global market, without the limitation of national context and its utility as a powerful management tool to set new performance norms (Moss and Dahlberg, 2008, p.4).

This perspective on quality, considered as a universal objective measure unaffected by the context in which it is applied, does not transplant well to the provision of public services, particularly education within the framework of the Saudi cultural tradition. Sallis's (2005) differentiation between types of quality provides some insight into the difficulties faced by public service traditions when he describes two opposed philosophies, namely

(i)   procedural quality "working to defined systems and procedures … most likely to produce a standardised or quality outcome", proving the effectiveness of the process, emphasising conformity and accountability (p.13).

(ii)   Transformational, incorporating practices of a "softer and more intangible aspect of quality … [including] care, customer service and social responsibility", not solely achievable by systems but leadership and vision (p.14).

The first philosophy relates in a very basic way to the issue of hiring qualified, innovative teachers, "trained in developing instructional materials for their own purposes and using them in classrooms, and the common perception that this is beyond their capability and responsibility... [and] needs to be changed" (Alnahdi, 2014, p.3). This lack of independence is a particular problem for Saudi schools, even at the level of the most basic procedural and management tasks. The institutional "strategic management and the updating of strategic objectives, the planning of operations and resources, the operations and steering and the reporting of results" (Kettunen (2008, p.327) are all regulated by central government. As a result, Saudi schools experience a wide range of problems that undermine the quality of learning. Almadani et al (2011) identified these as: (i) insufficient resources, (ii) value for money, (iii) unmotivated, underperforming teachers and (iv) lack of communication and positive relationships with students and stakeholders.

Sallis's second philosophy relates to a transformational approach, which can not be achieved through adherence to a system or by productivity, but requires the exercise of

leadership. The OECD emphasises the key role of leadership as "education systems respond to the needs of rapidly changing societies" (Pont, 2008, p.18). The transformation of teaching methodology, curricula, and the development of skills has been neglected by the Saudi authorities, who now recognise that tradition alone will not "build ... the theoretical and practical foundations needed for both social and economic development" (Alghamdi, 2018, p.2). Procedural and management change is insufficient; there is a need for a wholescale remodelling of the framework to introduce the quality of independent, well-educated students, for entrepreneurship and business needs. This needs "purpose and partnership i) an inspiring and inclusive vision, ii) strong public engagement, iii) achievement through investment, iv) corporate educational responsibility, v) increased student voice, and vi) learning for life" (Hargreaves and Shirley, 2009). In Saudi Arabia, this programme of transformation is envisaged in Saudi Arabia by the Tatweer Project and the Vision 2030 initiative, a development in practice from teacher-led presentational pedagogy to more student-oriented, autonomous learning, that makes particular use of ICT for knowledge accumulation and management.

Public and civil services in many nations function on the basis they always have in the absence of major political reformation and reorganisation, and arguably the rigid imposition of set standards passes through its various departments, including education (EU Commission, 2017). This inhibits the initiative of change.

Applications of TQM Practices to Public Services

This review of the origins of TQM has provided significant insights for the current research study, notably the ideological principles by which the TQM approach was designed and the goals that inspired its adoption in business management circles. It shows how the principles and practices were gradually reformed and adapted to the needs of new service-based management, triggering a revolution in a previously exclusive manufacturing strategy

to become standard in the contemporary service industry (Reed et al 2000, p.5). There then developed a further set of applications as a management approach in the delivery of public service (Ferreira and Diniz, 2004; Radin and Coffee, 1993; Rago 1994).

This history of TQM applications has not however escaped criticism by practitioners and scholars who have questioned the adequacy or appropriateness of its processes. This is particularly so in the early stages of application in public service provision, essentially government related practices of considerable diversity and goals. Radin and Coffee (1993) in implementation in the administration of US public service, for example, noted the historical basis of TQM as a strategy to define and manage the quality of both goods and services which benefited both the organisation (with sustained profitability) and the customer (getting value for their money) in both product and service businesses. However, the TQM approach confronted "a very different situation in the public sector (particularly the U.S. federal government) than it met in its application in the private sector," where (i) the focus was not profitability and competitiveness, (ii) the customer was dynamically distinctive from a business customer, and (iii) where expenditure was defined by numerous conflicts besides profitability (Radin and Coffee, 1993, p.42). It failed to address particular public service principles, attempting to match the TQM approach to the norms of theories of public administration and non-commercial realities of public administration practice. It did not account for the "attributes of the public sector that constrain" the utilisation of TQM in modern democratic government. The aggressive pursuit of competitive commercial advantage through constant monitoring and improvement has little bearing on the fundamental purpose of government service where goals are more diversified across different responsibilities, roles and consumer needs. These factors may in part explain why the TQM approach has had varied levels of value to Saudi Arabian schools in pursuit of school improvement.

TQM risks becoming just another "attempt by management to bring about change that either failed to achieve its purposes or just eroded over time" (Radin and Coffee 1993, p.43). This risk is enhanced by a lack purpose expressed in the abstract concept of public service delivery accompanied by inadequate adequate assessment of the resources needed for investment in improvement. In the US, adopting TQM in public service administration was merely "accompanied by grand rhetoric and promises" with a political agenda of shared power, yet ignoring the very foundation of quality attainment (Radin and Coffee, 1993, p.44). Al-Eisa (2009) indeed suggests it is arguable that the implementation of TQM practices in the Saudi Arabian public service context has also been biased by political propaganda. Essentially, TQM is not the resolution process for underperformance but simply a procedural and ultimately transformational method by which, in the satisfaction of broader consumer needs, informs the organisation and its management of the options available to sustain improvement.

It is one thing to recognise the need for change in quality procedures and structures in public service provision, and quite another to implement them (Udjo and Aguenza, 2016). The lack of effective management of change, especially where it is more than incremental, will meet the resistance of many in the organisation defending the status quo, resulting in the adaptation to a fluid business environment failing to be implemented (Thomas, 2014). This is especially so where those affected do not share the vision and sense of urgency to meet commercial needs, but "those that fail to accept and embrace change will have a limited future" (Thomas, 2014, p.171). Although strictly applicable to the commercial and business environment, it resonates in the smooth provision of public services across the Ministries of the Saudi government, which become more difficult and complex to provide where not adapted to societal needs, tradition undermining the effective operation of civil society (Montagu, 2015).

These problems are reflected in the introduction of liberal, commercially based principles of TQM into the school environment, a context embedded in the traditions of society and its strict authoritarian approach to teacher-led learning. Hassan and Fan (2016) identify the primary resistance to change being commitment of senior management, as well as a lack of teacher training in new styles of pedagogy, insufficient resources and an untried reward and recognition process. Concerns about the efficacy of implementing TQM in Saudi Arabian education are triggered by the fact that the pursuit of such reforms occurs (a) in the "absence of political vision," and most importantly, (b) with the "inability of educational management" (Al-Eisa 2009, p.2). It is a failure of leadership. The vision needed to positively transform public education in Saudi Arabia is one with a single goal and not a mix of double standards. It must consolidate both the will to reform and the power to institute such reform by facilitating empowered leadership with accountably, supported by a team of educated and experienced personnel to strategise for measurable performance (Al-Eisa 2009). In the Saudi context is the further imperative that reform practices must integrate with its unique political, cultural and economic realities, so the effect of TQM practices must be persuasive.

The value of TQM reform to the improvement of services must be established before its transplantability to other environments can be promoted. These contexts are many and varied. Stringham (2004, p182), for example, remarks that TQM approaches in public service are challenged when "sustaining a quality program through the frequent changeover of senior political appointee leadership and the inherent tension between process improvement quality approaches and cost savings/cost avoidance approaches that surface during times of government fiscal crises". Radin and Coffee (1993) illustrate this in the U.S. postal service case where a decisive mandate for leadership was lacking in public administration, given the Executive Branch met democratic opposition in Congress and so

adopting TQM without political leadership was bound to fail. The implementation of TQM was seen as "a subterfuge for increased executive control where high-level managers (often political appointees) were able to grab hold of what they viewed as an anarchistic bureaucracy" (Radin and Coffee, 1993, p.44). It lacked adequate formation of a leadership and accountability management structure with higher level managers failing to empower those staff for whom they had responsibility, thus lacking paths of communication which aid control and monitoring (Radin and Coffee, 1993).

This study investigated how principals and their school staff have been empowered to initiate and drive the TQM approach to significant and successful improvement outcomes. The problem of principals fear of losing control and thus centralising authority, noted by Radin and Coffee (1993) at the American postal service, will be examined. It should not be forgotten that school principals derive their authority, even instruction, from political masters at the Ministry of Education which can also stifle TQM implementation.

Further, the TQM approach has been criticised for its business-biased focus and therefore unsuited to public service. The "culture change that is implied by TQM cuts is at the very essence of how public bureaucracies have been managed for 30, 50, or in some cases, 100 years or more," and this challenge is uncommon in business organizations (Radin and Coffee, 1993, p.44). Such a reform would demand interdependencies between various governmental departments and programs that challenge the structural norms of what Radin and Coffee (1993. p.45) call a "fragmented government system," where multiple players are interested in autonomy and power rather than profitability or competitiveness.

This has particular applicability to the provision of education, especially in Saudi secondary school context. The government Ministries are galvanised by the Vision 2030 initiative of the Crown Prince and after decades of piecemeal reform of education in a context of a burgeoning youth population are aware and focused on change (Kinninmont,

2017). It is a framework where regional supervisors, public education directors and directorates, principals and the teachers arguably compete to protect traditional structural norms rather than embrace the new dynamics of school improvement shaped simply by the TQM approach in the absence of a shared vision of education. It is more difficult to effect transformation of decades old practices than it is to provide a new philosophy for the provision of education. Much has to change, not simply in the way teaching is done, but in wholescale transformation of its provision, Serdyukov (2017, p.6) comprehensively asserting

> "To raise the quality of teaching, we want to enhance teacher education, professional development, and life-long learning to include attitudes, dispositions, teaching style, motivation, skills, competencies, self-assessment, self-efficacy, creativity, responsibility, autonomy to teach, capacity to innovate, freedom from administrative pressure, best conditions of work, and public sustenance."

This is indicative of the hereto for rather limited applicability of the quality concept inherent in TQM practices to Saudi Arabian education where the interdependency of public officials leads to a perception of the need to protect their autonomy. This results in fragmented support for the TQM approach when being implemented in a school and the national education framework (Al-Eisa, 2009). Acceptance of the procedural change appears to garner considerable support at least until such time as the substantial transformation is required (Alzoman, 2012).

In the USA public administration system these criticisms are not unique to government service provision (Radin and Coffee, 1993). Stringham (2004)also questioned TQM-based quality management approaches in the US public sector on similar bases but in different service contexts. Ferreira and Diniz (2004, p.1) further relate TQM to public

administration in Portugal, arguing that its "public administration faces new and more complex challenges as a result of economic, social and technologic changes the country is undergoing," but there are significant obstacles to TQM's implementation. Amongst the obstacles they noted were (i) having "no organisational culture ...yet, it is an important feature which distinguishes a successful institution," and (ii) the unwillingness "to adopt TQM philosophy" in exchange for the sacrifice of treasured norms, (iii) strong resistance to "changing the usual rules" and thus compromising on the "implementation of a quality management system," and (iv) conflicts between junior and senior leaderships (Ferreira and Diniz (2004, p.22).

By implication and based on these findings therefore, it is important to establish whether the contemporary public education platform in Saudi Arabia is significantly influenced by the following. (a) conflicts between teachers and principals, (b) lack of a quality improvement culture, (c) opposition to TQM-based change for school improvement, and/or (d) a preference for sustaining traditional social, cultural, religious or political ideologies in public education. These questions address the core aims, purpose and objectives of this study.

The critiques of attempts to adopt TQM to public service provision in Portugal reflect those levelled against the theory in the USA and other developing and developing nations. This evaluation provides a sound basis for its examination, specifically, in the education context, drawing on research in other jurisdictions and assessing applicability to the Saudi framework, imbued with its special cultures and traditions.

TQM theory has also been modified and implemented in the Saudi public healthcare framework with the aim of costs reduction, applying adaptations to Demings Principles of leadership, quality, monitoring and change which will be discussed in more detail later (Albejaidi, 2010, p.806). The fundamental principles underlying the adoption are outlined

by Luce, Bindman and Lee (1994) and in the terminology is 'neutralised' of their medical

application by this author to make them of more general applicability to schools. They are,

from the perspective of procedural improvement to promote the transformation of school

practices,

i.   organising staff who perform their specific roles

ii.   limiting staff membership to well-educated, competent and licensed professionals

iii. framing rules and regulations to ensure regular staff meetings,

iv.   keeping records that include the history of performance, results, behaviour, and
      concerns,

v.   establishing supervised diagnostic monitoring to fix problems or obstacles (Luce et
      al 1994, p.265)

Quality assurance remains key to the process, although this requires the healthcare

framework to rely on foreign professionals in a country where the expatriate worker base is

used to Western standards in both health and education, certainly until its own citizens can

be educated and trained to provide the requisite service demand (Albejaidi, 2010).

TQM aims and principles in business are described by Mohammeda et al (2012,

p.326) as (i) production of qualitative and significant work with a (ii) focus on customer

satisfaction, a (iii) clear strategy for improvement which is (iv) continuously implemented

by all employees in the organisation, (v) encouraging the principle of mutual respect and

team spirit within the organisation. It requires a leadership that integrally involves

employees in the running of the enterprise in the achievement of management goals, a

motivated and committed workforce with a focus on performance and value for money

(Mohammed et al., 2012). Different theories of leadership practice are considered in this

chapter, but "viewing a leader as a single person fulfilling leadership functions invokes

concepts of competition and power, maintenance rather than development, and management

rather than leadership" (Algarni and Male 2014, p.54). Leadership is something that can be

nurtured and trained for, and they learn how to initiate and manage a developing group dynamic with a new vision. It will be argued that a school principal requires the assistance of his senior staff and their input into an improvement vision just as a Chief Executive needs a competent and inspired board.

This provides a sound basis for regular re-evaluation of pedagogical and learning methods, and with examples from other national educational frameworks and contexts that implement improvement principles based on TQM. It will be possible to provide a case study with considerable value to the improvement of Saudi Arabian schools, particularly in terms of institutional leadership. Good business and education practice in terms of promoting organisational transformation, and indeed obstacles which inhibit progress, will be identified in current and projected Saudi education leadership public schools. This necessarily includes consideration of the transplantation of modern business ideas and other national practices into the culture and traditions of the Saudi framework.

TQM and the diverse range of leadership styles that underpin the principles have not been sufficiently examined within the Saudi Arabian context, a gap in contemporary knowledge, particularly from the perspective of the school leaders who spearhead such school improvement drives. In the investigation and implementation of TQM for progressive school improvement in the Saudi Arabian context therefore, understanding of the leadership which is fundamental to the embedding of a new vision. Management of teaching and teachers and the contextual perception of school leaders and teachers entrusted to lead such schools of their roles have to be considered as essential to their training and the subsequent success of the TQM changes.

TQM and Leadership Styles: a Critical Review

Leadership has been explored from an array of perspectives, applications, and functions in the literature. Louis and Miles (1992) for example, argue that the concept of leadership denotes the process of "establishing a mission (and) … giving a sense of direction" to a team within an organisation setting, which is then complemented by the role of management (p.94). It is a function of building and consolidating a vision for an organisation such as a school or a team, perhaps of teachers, energising and motivating members in their specific roles to follow the designs, plans and objectives of the management vision (Louis and Miles 1992, p.96). A leader not only defines the direction taken by the team, but guides, directs and monitors team member participation, motivating them to do their best to achieve the determined direction and vision, managing the process to optimise progress towards the goal. This explains why, according to Smith and Hughey (2006), "leadership is a key ingredient in the ultimate success or failure of any organisation" (p.157). Vision, commitment, communication, listening, innovating, evaluating and the development of empowered teams of teachers unafraid of mistakes are just some of the key jobs of the effective leader (Sallis, 2005, p.89).

Others view leadership as a strategic character trait. Gunter (2001) argues that "leadership is strategic and is about enabling particular personal attributes and behaviours to build followership within an organisation" in the monitoring and evaluation of performance (p.45). It is essentially ingrained rather than learned, a perspective which is not shared by providers of leadership and management training. The role and identity of leadership incorporates a management function where leadership is enforced or practiced when running an organisation and this study does not adopt a definitive description but in school leadership incorporates the facets of the personal with the functional. In the application of TQM

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theories, each leader will have a perspective on how it is adapted arising from experience and the context and traditions of the school framework. Leaders inspire, direct, motivate, instruct, guide, and shape the hands and minds under their mantel in the performance of the organisational vision. Leadership enables management of the active stakeholders in that organisation in a common direction (Gunter, 2001, p.46). The quality and effectiveness of a leader relies on a clear vision of the kind of school environment they want to create and then being able to convey that to their staff.

It is evident that leadership denotes a strategic process of determining the most progressive goal and vision of a school, motivating stakeholders in the school team comprising of teachers, students, parents and community, whilst recognising and supporting their efforts and achievements. Leaders are responsible and accountable for the quality of education in a school, improvements or failures and actively promoting positive outcomes for every stakeholder. Jarvis (1999) identifies strategies, skills and character traits which support the role, namely (a) social skills, (b) organisational skills, (c) effective planning, (d) mentoring prowess, (e) supervision and evaluation insight, (e) communication aptitude and (f) contextual awareness of the wider environment of a team. They are defined not only by seniority but the clarity of their focus on the direction the organisation takes and its progressive success.

The combination of authority figure and mentor, autonomous in decision-making within the institution with trusted delegates has been critical in reforming Saudi Arabian education, where principals in various public schools have progressively been given permission to improve their schools (Aldaweesh, et al 2012; Al-Eisa, 2009). Busher (2006) describes the qualities, expertise, skills, and knowledge needed to provide vision and leadership which are pertinent in application to Saudi educational institutions in the implementation of TQM practices. His typology includes, amongst others, (i) *servant*

leaders the use of interpersonal relationships rather than hierarchy to positively influence team members to contribute their best professional capacities (ii) *organisational architects*, leaders skilled in optimising the commitment, competence and ownership of specific tasks by team members in strategically created units. (iii) *moral educator,* who regards and engages team members as individuals, building their sense of morality, values, beliefs, and responsibility in what they contribute to the organization, and (iv) *social architect,* focused on the social and economic issues facing team members through strategically constructed social networks of a community, within and without an organisation. Busher (2006) does not propose leadership traits or styles, but, ideally, types of leader in organisational contexts.

This goes beyond the idea of a 'professional leader' who focuses on employing their organisational skills, professional expertise, and performance competence as a strategy of influencing teams and team members by introducing the importance of personal relationship building. Much of the evaluation in this study depends on how education leaders in the sample see their own roles as leaders in the school structure. The leadership typology predefines the most common leadership styles outlined in the literature. Schools are unique organisations and school, or 'educational leadership' as described by Busher (2006), operates with the same dynamic traits of leadership as business and non-business organizations, despite being fundamentally different in its vision and operations.

Aldaweesh et al (2012), Alruwaili (2013), and Alyami (2014) note an emerging trend of school leaders in Saudi Arabia who are gaining some, albeit limited, autonomy and freedom to improve student performance in their schools. Alssaloom (2005), however, asserts that still more is needed to enable school leaders to pursue continuous improvement beyond the bureaucratic processes of managing the individual school. Leadership should embrace the structural, ideological, operational and cultural landscape of an organisation and

thus autonomy and flexibility must be accorded to shepherd the schools to pursue improvement in accordance with their contextual differences.

This is a challenge in the adaptation of the TQM tools. Smith and Hughey (2006) state "leadership in the academic world is similar to, yet distinct from, leadership in the private sector" (p.157). They argue that unlike leadership in the private sector "to be successful in higher education, leaders must be intuitively cognisant of the unique factors that characterise" contemporary education institutions from a community obligation to a national objective. This study helps investigate how secondary school teachers, alongside their principals, conceive their role based on their contextual expectations where "leadership in academia is complicated by the dynamic social, economic and policy contexts in which most colleges and universities operate" in relation to public education contexts in Saudi Arabia (Goldring and Greenfield, 2002, p.24).

Chan et al (2012) also propose a conceptual framework to link leadership styles and TQM practices from a practical perspective. Conventional leaders, they argue, "adapt a suitable leadership style and approach to effectively overcome the obstacles and eventually enhance organisational performance" (p.6), unique to the context of that organisation. They suggest that practitioners can potentially improve the breadth and depth of the knowledge of leadership styles in organisations where the TQM tools are embedded to match their leadership style to the unique organization context (Chan et al., 2012, p.51). Evidently, contemporary literature has considerable range of theoretical and research knowledge on leadership, with contradictory hypotheses on organisation leadership. A critical review and synthesis of this knowledge helps identify and profile distinct leadership styles relevant to the Saudi Arabian school context, including distributed leadership styles.

Algarni and Male (2014) assert that leadership and management differ in role application. Current school management is the maintenance of a set vision and implementing

central instructions, whilst leadership promotes change based on developing principles and values. Leadership is a correlation of context, personality, social interaction, commitment and the exercise of influence rather than the exercise of authority (Algarni and Male 2014, p.51). This differentiation of management and leadership is central to Saudi education reform and is the basis of implementing positive change as a key factor in the TQM philosophy. The nature of that 'leadership' will incorporate management and operational functions, but is not limited by them. The roles are a mixed collection of demands, envisioned by the Saudi Ministry of Education namely;

i. "accountability for preparing the school environment,

ii. having a comprehensive understanding of the objectives of education and awareness of the characteristics of pupils/students at the stage they serve,

iii. organising resources and equipment, maintaining good relationships with students, teachers and parents,

iv. supervising the school's provision through carrying out observations and assessments of teachers' and students' performance

v. setting up appropriate plans for the short- and long-term targets" (related by Algarni and Male 2014, p.47).

It is difficult to conceive of efficient fulfilment of these diverse requirements by a single authoritative principal although the intention remains to centralise authority for leadership and management in the person of the principal. The focus remains on results and outcomes rather than learner-centred development (Algarni and Male 2014, p.48).

Instructional Leadership

The basic roles of the instructional leader in schools are drafting and disseminating the school mission and vision, managing curriculum and instructions, supervising teachers

and monitoring student progress and promoting school learning climate through staff incentivisation and enriching development (Noor et al., 2018, p.).
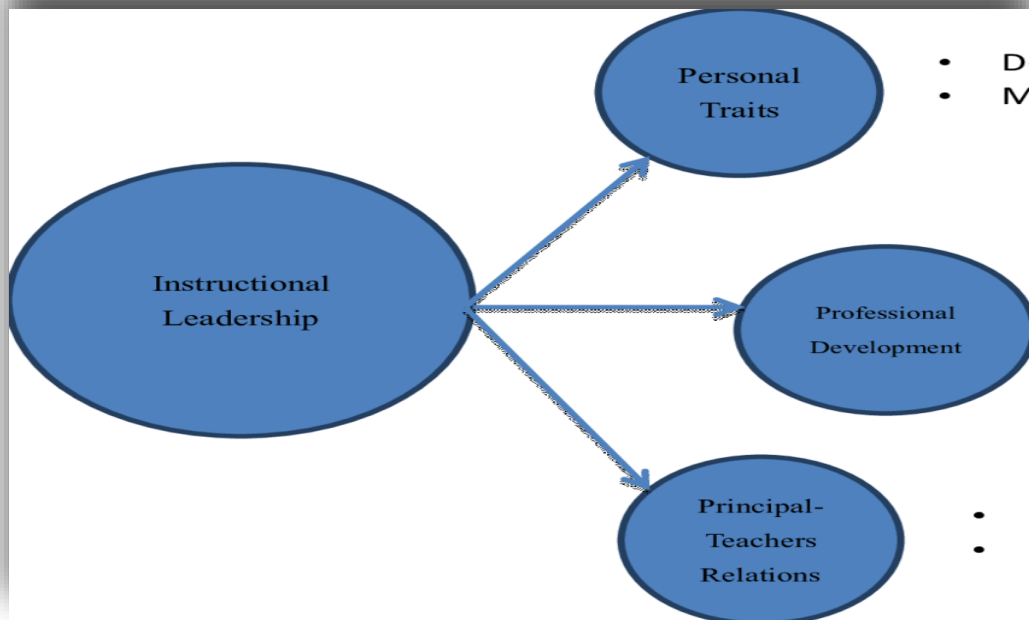
Figure 2: Source Niqab et al (2014)

The leader is often viewed as the primary source of knowledge in an institution (Bush, 2015). Their focus is on policy alignment and the fulfilment of state criteria and expectations detracting from student achievement as the primary goal of education (Ruebling et al., 2004). Herein lies the traditional problem with Saudi educational leadership. Saudi Arabia has a highly structured, centralised system of education that leaves "less opportunity for school autonomy and impacts on creativity and competitiveness among schools" (Algarni and Male 2014, p.48). This concentrates decision-making authority in the hands of the principal, overwhelming a single authoritative figure with the roles stipulated by the MoE as well as dealing with teaching responsibilities, child protection issues and the external stakeholder forces of teacher, community and religious leaders and government. Delegation is by instruction, telling staff what they need to do in order to fulfil school requirements. The solution is "reducing the role expectation of headteachers and developing

the capability of others within the school" to meet the challenges of moving from "a learning-centred to a learner-centred approach" (Algarni and Male (2014, p.48).

The Distributed Leadership Style

To implement a TQM approach, a school leader needs to distribute responsibility to the teachers and other stakeholders such that each complements the overall process of school improvement. Bennett et al. (2003) asserted that, "distributed leadership is not something done by an individual to others, or a set of individual actions through which people contribute to a group or organisation … (but it) is a group activity that works through and within relationships, rather than individual action (p.3). The key is inter-communication with those who hold delegated authority, monitored by the leadership. It is the use of initiative to provide vision and direction, inspire and motivate his teams and reshape the organisation and its culture to achieve higher goals (Leithwood, and Jantzi, 2009).

Figure 18: A distributed leadership model defines leadership roles, how they will work together and the systems needed to support them

Determine what core leadership roles will be and define responsibilities

Role definition

Organization structure

School leadership model

Systems and processes

Define how those leaders are deployed to support teams of teachers

Design the systems and processes needed to support the new organizational structure

Source: Bain & Company

Figure 3: Distributed Leadership Model: Bain and Co

Source: https://www.bain.com/insights/transforming-schools/

This leadership style is becoming more familiar than the authoritative instructional model in Saudi Arabian institutions in the experience of the researcher. Authority and

responsibility is delegated to specific departments with accountability to the principal (Gronn, 2000). School leaders, principals, used to be respected authority figures in their communities, even "heroes" (Northouse 2007, p.85). Badaracco (2001) however asserts that distributed leadership was by then an effective leadership style (Badaracco, 2001, p.120). The primary responsibility of the principal was to inspire and shape the actions and contributions of those under their leadership towards the attainment of community or organisation goals (Bennett et al., 2003, p.3). As such, school leadership today must be "socially constructed and culturally sensitive" to the context, for the context defines the outcomes of leadership more than the traits of an individual leader (Harris, 2003, p.314). Nearly seven decades ago, Gibb (1954) had predicted that the concept of leadership would soon be "probably best conceived as a group quality, as a set of functions which must be carried out by the group," rather than the qualities of an individual hero (cited by Gronn, 2000, p.324).

The "heroics of leadership genre" is impractical today in school contexts, given that this theoretical perspective emphasises the superiority of an individual and "equates school leadership chiefly with an individual leader typically the school principal" (Spillane, 2005, p.143). School leadership is not a single-handed affair but the collective contributions of all involved in the service of teaching array. It is not a question of "what of leadership" rather how is it exercised, defined by outcomes. Spillane (2005, p143) summarises that "leadership practice centres not only on what people do, but how and why they do it". Thus explained, the leadership role becomes an integration of improvement processes and quality-based approaches. School leadership, according to Flemming (2000), becomes more effective when distributed to individual team leaders who collaborate in the management of the larger organisation. The Saudi Arabian school context needs a decentralised system that distributes leadership roles to participants in the reform process of institutional provision improvement

(Alyami, 2014; Alruwaili, 2013; Harris, 2003). Modern leadership is not based on the behaviours, character traits, or actions of an individual, the traditional hero, but on the systemic appraisal of the role that a leader plays in a collective setting (Bolden 2007).

Saudi Arabian school leadership has not operated in the manner of authority distribution, harnessing the skills of both teacher and students in the promotion of learning. Essentially the framework may be considered responsibility without control. Like political power and practice in Saudi, distributed leadership is neither common nor deemed to be feasible in Saudi Arabian schools (Al-Eisa, 2009). Leadership lacked the collaborative culture when pursuing school improvement Perspectives have slowly developed whereby it is now understood as the function of organising and inspiring the collaboration of the collective efforts of multiple actors in a social unit towards the best outcomes of those under their leadership (Uhl-Bien 2006). Bolden (2011, p.252) also argues that distributed leadership can only be effective when implemented with "hybrid configurations of practice" such as being shared between a principal and the teachers in managing the learning process. It is a basic introduction of democracy in the school in the quest for advancement. Rather than the division of leader and the led, distributed leadership builds a platform for a singular group of 'us', to replace the 'me' versus 'them' ideology (Bolden 2007, p.46).

Distributed leadership integrates the contribution of teacher, students, parents and the local community to mould a unique school leadership approach where all stakeholders cooperate in "learning together and constructing meaning and knowledge collectively and collaboratively ... mediate perceptions, values, beliefs, information and assumptions through continuing conversations" (Harris 2003, p.314). It focuses on helping stakeholders in a social setting start "generating ideas together, seeking to reflect upon and make sense of work in the light of shared beliefs and new information, and creating actions that grow out of these new understandings" (Harris 2003, p.314). This is a key message in the international

research on education improvement (Chapman et al., 2012). It is a theory and practice which is relatable to instructional leadership, whereby the principal sets tasks and monitors and advises on meeting pre-determined goals, the traditional perspective. Heck and Hallinger (2010, p.656) seek to correlate the relationship suggesting that instructional leadership as an organisational property aimed at school improvement, whereas distributed leadership is not just an accidental derivative of a high performing organisation but rather has been shown to be a significant contributor to institutional success and performance.

Instead of getting the best from school improvement from the old leadership style of instructional leadership, distributed leadership has the potential to contribute to school, district, and system improvement. This determination is the result of 20 years of research on school effectiveness and school improvement in which some of it has been carried out in challenging circumstances in an attempt to improve failing frameworks and then sustain these improvements (Harris, et al 2013). It has already been noted that the pressure upon traditional leaders to be all things to all people, including the government, is unsustainable. Herein lies the importance of clearly defined, well-resourced team building and delegation of clear tasks and goal fulfilment to groups of experienced, trained teachers of particular roles and responsibilities. The leader will guide, monitor, inspire his teams toward change as small steps grow into giant leaps, "(i) forming; (ii) storming; (iii) norming; (iv) performing; (v) transforming" (Sallis, 2005, p.76). Sallis summarises the expected results of fundamental reform planning by a distributive leadership process as follows:

> Quality improvement often takes place by a series of teams working on small incremental projects, each of which is designed to solve a problem, improve an existing process or design a new one. The brief for each is usually limited because it is easier to achieve success with small and manageable assignments. Small projects that fail do not jeopardise the credibility of the whole process. (2005, p.75)

The measurement of success or otherwise of TQM practices in the achievement of reform however raises issues which cannot, and should not, be based on numerical quotas (Sallis, 2005). Rather the achievement of the vision and mission it is to be hoped will be reflected in outcomes, and internal continuous monitoring will ensure the school is fulfilling what is arguably its primary duty of educating the citizens of the future (Day et al., 2009). This is where the tools of TQM theory can be assessed for value.

This study envisages a future for the Saudi educational system practices based on what philosophy best works for the nation in promoting economic and educational aims, for neither the instructional nor the distributed leadership style seem to be applicable to current practice in Saudi Arabian schools. Alrawili, (2013) and AlEisa, (2009) criticise the current system and the form of hierarchy implemented by the government in each district and school administration which hinders institutional development. Culture, professional inadequacy, reluctance to change and take the responsibility that follows authority may further influence the form of distributing leadership (Harris, 2014).

The Transformational Leadership Style

The transformational leadership style is anchored in the collaboration of the leader with those under their leadership, their juniors (Joyce and Judge 2004). This collaboration differs from that of collaborative or instructional leadership and is considered 'pro-transformation' which means that the leader seeks positive organisational change in practices and operations, quality standards, and competitiveness for sustainable profitability through consultation with staff (Judge and Piccolo 2004, p.755). Alharbi and Yusoff (2012) examined the process in a cross-sectional survey of Saudi Arabian hospitals finding "the transformational leadership style has a significant, positive relationship with quality management practices" while other leadership styles "were found to significantly and negatively relate to quality management practices" (p.59).
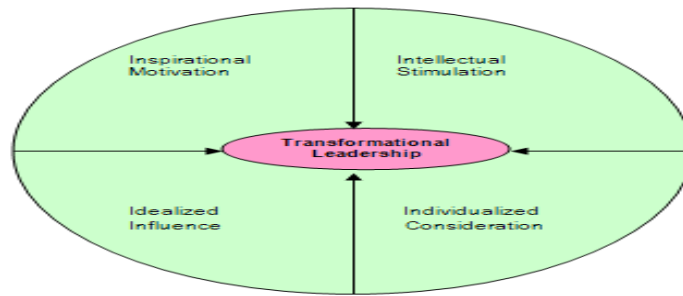
Figure 4: Model of Transformational Leadership: Source Management Study

Guide

[source: https://managementstudyguide.com/transformational-leadership.htm]

This style positively influences quality management practices by enabling:

i. leaders to "engage workers through motivational strategies"
ii. "enabling (staff) to give their best"
iii. Motivating them to "lead to the improvement of services and the development of people oriented culture" (Alharbi and Yusoff 2012, p.64).

It positively influences quality management practices by "adopting customer-centered approaches (which) mostly focus on customer satisfaction" achieved where those working in the organisation understand that employees are "internal customers" that need to be motivated and satisfied first (Alharbi and Yusoff 2012, p.64).

In adaptation to Saudi secondary schools transformative leadership cooperation and collaboration would, it is suggested, be more effective in bringing about improvement when rather than other leadership styles. It may be more culturally acceptable than the distributive leadership framework because there is little 'surrender' of authority. Stakeholders (a) identify areas that need change, (b) create a shared vision to inspire the needed change, (c) determine how to effect change, (d) execute the plan with the shared participation of all

parties, and finally (e) evaluate the change for results that incorporate positive improvements (Joyce and Judge 2004, p.901). This differs from distributed leadership significantly, since the transformation leadership process always starts by identifying areas that need change among all stakeholders, while the distributed leadership process starts by identifying duties that can cooperatively be assigned to each participating stakeholder, without a change in operation or culture of the organisation.

The transformational leadership style presents the leader as a role model for stakeholders (Judge and Piccolo 2004, p.755). The role of the leader in this instance is to nurture a common identity in the change process then motivate, inspire, guide, and consolidate stakeholders into a team that pursues the new aims in concert. When the stakeholders identify and embrace the change process, the leader then aligns each team member with a specific task, in a manner that enhances their performance when initiating the transformation (Alharbi and Yusoff 2012, p.59).

This transformational leadership style would be of value for principals in Saudi secondary schools in the implementation of an adapted and agreed TQM approach in pursuit of progressive school improvement by substantial policy, practice and cultural change. Indeed in their respective studies, Aldaweesh et al (2012), Al-Eisa (2009), Alruwaili (2013) and Alyami (2014) all identified the need to initiate and propel change in the Saudi Arabian education system towards a reform process that the transformation style is best suited for. Wirbaa and Shmailan (2015) also found that "the rapidly changing world and the increasing demand for accountability in the quality of education institutions require" unique leadership styles where Saudi Arabian school leaders adopt the best rated approaches, namely, "transformational leaders seconded by transactional leadership style" (p.174). Their findings justify the need for examination of the transformational leadership style in the context of

TQM adoption amongst principals pursuing improvement in Saudi Arabian secondary schools.

TQM and Transplantation to the Saudi School Leadership Framework

In the international sphere it is evident that business practices have been transplanted by adaptation to public service, a lesson for the Saudi administration. TQM practices prioritise and mitigate problems occurring "from the department-level perspective of the customer" (Rago 1994, p.61). It consists of reforming orthodox and traditional practices to the adoption of a more pioneering approach to resolution and public provision beyond the business purpose of "statistical quality control and industrial engineering" of products (Swiss 1992, p. 356). Adapted to fit the needs of contemporary public management in Switzerland, quality control mechanisms change the way public agencies function "without overselling and with sensitivity to government's unique circumstances" in service delivery (Swiss 1992, p.356). It is adjudged and developed through client feedback, performance monitoring and employee participation.

In his article "TQM goes to school", Lagrosen (1999, p.328) saw the benefits of the approach for improving education policy and quality in schools. His optimism does not necessarily apply to all stages of public education in Saudi Arabia, but has greater applicability to higher learning. Alruwaili (2013, p.29) asserts the application of TQM in Saudi Arabia's education directorates has not registered similar positive outcomes. While some have recorded impressive improvements, others do not yet respond to the needs of the broader community stakeholders for improved education outcomes. These they deem to include improved student performance, positive revision of syllabuses, increased active involvement of teachers, and optimisation of schools as learning environments. Such outcomes can be hindered or limited by several factors including:

a) "Bureaucratic restrictions" and "bureaucratic decision-making",

b) Formalised layers of management which result "in slow processes and prolonged procedures for easy decisions",

c) Resultant "work delays" and "excessive workloads" for teachers,

d) Normal operations become "tedious administrative chores and apathy".

e) Teachers lack "education and have inadequate training" to handle their tasks, due to a "shortage of training courses",

f) A poor reward system that fails to motivate teachers, since "fixed monthly pay ... is taken for granted based on permanent contracts valid for the life of the individual" (Alruwaili, 2013, p.29-30).

Algarni and Male (2014. p.45) identify the fundamental problem with effecting reform as "maintenance rather than development and management rather than leadership". The traditional ways of running schools will not change without inspired impetus from its leaders but the national curriculum is set by the Ministry of Education and school principals organise its application in their schools. This undermines initiative, inspiration, motivation and enrichment of learning (Algarni and Male, 2014).

All this is before the strong cultural traditions of the school contexts are taken into account (Achoui, 2006). Sayed (2010, p.87) describes the emphasis on culture and religious values as "'mental terrorism against intellectual, innovation and creativity of teachers". Prior research projects examined in this review have not yet investigated fully by study the application of TQM in Saudi Arabian public schools, particularly secondary schools, nor has the approach been measured in a manner comparable to Hammersley-Fletcher and Qualter's (2010, p.903) appraisal of improved pupil performance in English schools. This perspective, somewhat contextualises Al-Eisa's (2009) apprehension about crediting Saudi Arabia with positive education reform in the last decade.

There has been a notable reform of policy, structure, investment, social support as well as the ideological base of Saudi Arabian education (Al-Eisa, 2009). Research has

documented that TQM has been implemented in some areas of the Saudi Arabian public education system, Alyami (2014, p1424) in particular pointing out positive reform and improvement has taken place in Tatweer schools in Saudi Arabia, when such schools are reviewed exclusively "as a unit of development". Similar sentiments were expressed by Aldaweesh et al (2012, p.11) when reviewing the relationship between the implementation of TQM, and leadership in Saudi higher education. The application of the TQM approach is varied and flexible, depending on the organisation, its nature and aims.

The Tatweer Project was instituted in 2007 by King Abdullah Bin Abdul-Aziz as Saudi authorities sought to advance economic and social development in a globally competitive environment by enhancing at least part of its education framework in pursuit of quality by the adoption of commercially related best practice (Alyami, 2016). Although Alyami (2016) makes no specific mention of TQM in her thesis, the terminology used is a reflection of the adaptation of the theory to schools. What is particularly striking in her research is her association of the new practices in some Saudi schools with western neo-liberalist principles in the drive for a new economy which heralds "limited public control and accountability with a balance of liberalisation, privatisation and deregulation" (Alyami,2016, p.29). This overtly threatens over a century of national culture and tradition. Nurullah (2008) suggests the embracing of globalisation, and arguably therefore Western practices such as the capitalist TQM and competitive production process, "poses a challenge to Islamic ways of life, values, and principles." Indeed Alyami (2016, p.307) noted teacher resistance to change which caused difficulties for the leadership-management in running the school operation

The Tatweer Project is nevertheless a limited move in the management of the particular chosen schools from centralisation to partial de-centralisation, and there is little official documentation available in the public domain of measured performance (Alyami,

2016, p.13). This does not aid the assessment or evaluation of the benefits of quality focused leadership practices and teacher development that are aimed at the improvement of student outcomes, which are fundamental to TQM philosophies. Her findings describe a culture shift in the schools from their traditional sibling institutions, a reduction of centralisation, greater scope for self-evaluation and planning, the shift from manager to leader and a greater integration of technology into teaching (Alyami, 2016, p.304).

This would have been a valuable project upon which to assess the success or otherwise of TQM in Saudi education, given the premise of its constitution, measuring progress in reform and outcomes. However, evaluation of improvement is hindered by the lack of documentation and transparency, and much of the other findings are predicated on intention and what should be happening. Until there is greater disclosure of the effects of reform it will remain difficult to assess TQM value in Saudi education.

In the education provision context, this drive for a particular kind of improvement does not, on the face of it, easily apply. Sallis (2002) argues that quality and improvement are is largely moral concepts rather than a practical measurable quantity. The most appropriate tool for this study will thus be one that recognises this key difference between quality in management terms and quality in education. The interests of diverse stakeholders, rather than a single identifiable customer means that quality and value will mean vastly different things which poses more significant theoretical challenges for management.

In the Saudi Arabia context there has arisen a culture of competition in higher education provision, most notably between the public sector and new, private universities and research centres to satisfy a need to educate a quality workforce in the development of a diverse, entrepreneurial economy for the 21st century (Aldaweesh et al 2012, p.461). This means that schools in Saudi Arabia are facing the challenge of remaining relevant, sustainable, and optimally productive in society, particularly in terms of providing the

necessary skills for a rapidly developing nation, affordably. Some of the key concerns

identified by academics in their studies of the Saudi framework are

a) Not basing public school curriculums on the real-life knowledge and skills needed for subsequent employment (Alhediyanee, 1999; Al-Romi, 2001).

b) Mismatching what is taught in schools and the skills and knowledge needed to advance the society (Alhediyanee, 1999; Al-Romi, 2001).

c) Having unqualified and untrained teachers whose contracts are guaranteed for life regardless of their performance (Alruwaili, 2013).

d) Entrusting education to teachers who lack adequate training and continuing education due to a "shortage of training courses" (Alruwaili, 2013, p. 30).

e) Poor school leadership that is not subject to performance evaluations (Aldaweesh et al., 2012; Al-Eisa, 2009; Alruwaili, 2013).

f) Abstract, discordant, and ineffective education reform across the country (Al-Eisa, 2009; Alyami, 2014).

g) Allowing cultural factors to jeopardise educational advancement (Al-Eisa, 2009; Al-Romi, 2001).

This is a disappointing extensive list of quality threats which can be summarised to

inadequate or ineffective management, unaware of the future needs of their students, and the

obstacles of culture and traditional practices of teachers. TQM has been adapted and

introduced in an effort to improve educational outcomes in some institutions, to increase

efficiency and effectiveness and a valuable return on community and state investment

(Aldaweesh et al., 2012). It is one of several strategies undertaken to effect improvement

and will form a basis for this empirical study. (Aldaweesh, et al., 2012; Al-Eisa, 2009;

Alruwaili, 2013).

When the criticisms noted are converted to goals, this provides a guide for the

leadership of schools to implement improvement and potentially forms a basis for the

adaptation of TQM practices of monitoring and staff involvement. The relevance and

sustainability of educational institutions demands they embrace the optimally productive

output of well-educated students to make their contribution to society (Aldaweesh, Al-Karaghouli, and Gallear, 2012). In addition to the particular needs adaptations, TQM must also be customised to accommodate Saudi national economic, social, and cultural dynamics across its diverse states (Alruwaili, 2013). This formulation and planning for change process may perhaps take into account the principles of Detert, Schroeder, and Mauriel (2000), proposed for business but relatively simply adaptable to school management;

1) obtaining hard data to serve as the background against which organisations make rational decisions and choices;

2) embracing a firm commitment to the nature of time in the context of goal achievement;

3) motivating employees to continuously improve;

4) replacing the desire for stability with the acknowledgement and reception of innovation, change and personal growth;

5) integrating quality improvement requirements into the work, tasks, and co-workers;

6) replacing isolation in pursuit of an organisation's missions and purpose with cooperation and collaboration with partners who build on the quality aim;

7) strategically refining the control of operations and budgets, and assignment of responsibility for specific tasks during the improvement initiative, to give a shared vision to its employees;

8) defining the organisation's orientation towards external rather than internal focus, meeting the needs of society to advance the economic future of the graduates. (Detert, Schroeder, and Mauriel 2000, p.853).

These dimensions are central to this study, because they helped define the elements employed by the data collection instruments, particularly interview schedules and questionnaires, when investigating the adoption of TQM in Saudi Arabian schools. They will also enable understanding of the contextual foundation of the need for leadership behavioural change in Saudi's unique social, cultural, and economic factors. Institutions

need to look beyond their walls to ascertain from partner schools and business what is proving inadequate in their education provision.

Several of the Detert et al (2000) dimensions appear to meet the problems identified by researchers on the Saudi education system;

i. discordant, unqualified, and abstract management of education institutions (Al-Eisa, 2009; Alruwaili, 2013),

ii. poor leadership not subject to performance evaluations (Aldaweesh, Al-Karaghouli and Gallear, 2012; Al-Eisa, 2009; Alruwaili, 2013),

iii. ineffective education reforms that are neither strategically uniform nor fact-based (Al-Eisa, 2009; Alyami, 2014),

iv. a mismatch between what is taught in schools and educational curriculums with the skills needed by the human resource market (Al-Romi, 2001)

v. cultural factors that compete with the interests of educational advancement, such as competitive entrepreneurships and performance-based merits in society (Al-Eisa, 2009; Al-Romi, 2001).

A potential explanation for the source of such problems is provided by Algarni and Male (2014). The deficiencies, which undermine the effectiveness of national policy demands for physical and mental skills to complement academic achievement and raise greater awareness of the role to be played by learners as citizens of KSA can only be addressed by making "student learning a central concern and to redefine the roles of schools"(p.46). This requires a devolution of authority and planning from central government to, ultimately, the schools, to plan and design their structure and curricula. Quality improvement is a process of continuous engagement not simply a one-off overhaul of practices. It must be focused on refining the culture in Saudi Arabian public schools towards optimised effectiveness where cumulative theoretical and empirical research will

enhance understanding of the adaptable TQM philosophy of continuous improvement (Detert, et al., 2000).

Towards an analytical framework for addressing Education Practices and Goals through TQM

The business focus of TQM is on "conformance to customer requirements ... producing an outcome within the customer acceptable limit (or) … a predictable degree of uniformity and dependability at a low cost" (Chan, Ng and Jee 2012, p.7). It is the approach organisations used to achieve and sustain a competitive advantage (Reed et al., 2000, p.5). The maximum profitability of a business emerges from the ability of the management to design and present a unique product that best serves customers' needs, offering the best value at the most affordable price, compared to alternative products on the market. It is a measure the value of a product or service from the perspective of the consumer. This provides a template against which to examine the Saudi Arabian education system from the perspective of children, students, families and society who are the recipients and beneficiaries of public education. The TQM practices and methods do however provide challenges of measurement of success when applied to social service processes such as education (Tambi, 2000).

TQM Theories and Education: The Creation of a new Product and Consumer

Quality, as perceived in such social processes as education, is underpinned by personal perceptions of students and teachers (Greatbatch and Tate, 2018). The constitution of the stakeholder base in education is political and cultural, the investment in quality of provision unlimited by the most immediate users, and so management and development measurement must take account of the wider society, commerce and the economy and government stakeholders (OECD, 2016).

It is arguably seen in more conservative circles as a transplantation of Western neoliberal business principles into Saudi Education leading to "a defensive attitude intending to discredit what was perceived to be an invading hegemonic Western, secular conception of education" (Sahin (2018, p.3). On the other hand Hasan et al (2018, p.372) asserts TQM is "a tool to remove the obstacles in the way of effective schools. In this aspect, the principles of total quality management are appropriate for educational settings." The emphasis is on the descriptive word 'tool'. It, of itself, does not supply the solution to institutionalised, cultural and traditional ways of teaching and learning but provides a guide to how quality and improvement can be achieved through collaboration, inspirational leadership and change.

Adaptation to the Saudi Education Framework

It is further noted that in relation to the adaptability of TQM philosophies, that education (especially but not exclusively at tertiary level) is not restricted to the classroom, or indeed to teacher-learner interaction Blended learning, coupling traditional classroom teaching with ICT based distance learning is in early development in Saudi Arabia, where demand is increasing due to the logistics of travel in a vast variable environment and particularly to the need to meet the needs of regions and citizens in the face of a teacher shortage (Alebaikan, 2010). This is especially so in Saudi Arabia's university system, where, as Male and Alshathri note, the demand for places has vastly outstripped supply despite a substantial building policy. Indeed, studies have shown that those proficient with computers have indicated a preference for e-learning (Male and Alshathri, 2015, pp 6-7). The stakeholders may remain the same but the methods of learning provision appear less conducive to teamwork, involving students, and monitoring. This study will focus on TQM in the more institutional education provision in schools but the transition to a blended learning environment in schools remains an important area for future study.

The Development of the TQM Approach in Schools

This section of the review will focus on quality improvement in schools through the application of the TQM approach and will build upon much of what has been discussed so far, namely (a) the concept of quality improvement, (b) available TQM application tools and (c) the most relevant and suitable TQM application tool for the Saudi education provision context. In determining the measurement of quality note will be taken of the research of Felix (2000) and Vinni (2007) and its application in public administration. The work of Moss and Dahlberg (2008, p.4) has been previously outlined and it is worthy of reminder that their defining of quality in the management of education considers it to be a political process where quality becomes "a concept with a very particular meaning and inscribed with specific assumptions and values". This cannot be accomplished without a change in leadership role and perspective to achieve what Alameen, Male and Palaiologou (2015, p.122) "(1) general influencing; (2) influencing others, individuals or groups, not only for their own sake, but for a common and shared goal; and (3) influencing the aims and purposes to be achieved."

The concept of quality, particularly in commerce, implies a universal measure or standard that can be applied with precise consideration of the relevant context and jurisdiction from the perspective of management. Adapting this perspective quality improvement in schools can be established by "evaluation or measuring of the norms of performance" that result from management practices (Moss and Dahlberg, 2008, p.4). This is an imperative of this study of Saudi education, adopting Goldberg and Cole's (2002, p.8) view, that the determination and understanding of quality in such institutions mandates the evaluation of quantitative improvements among which are "greater equity and higher student performance".

A major concern, indeed a necessity in the evaluation of any consistent change in practice in an organisation is measurement, and this applies as much to schools as it does to

business enterprises. With this in mind, Sallis (2005) has suggested two practices, amongst others, which have particular application to collaborative educational environments and institutions in the creation and promotion of continued improvement, namely Benchmarking and Internal quality measurement. Benchmarking is a job for the investigative teacher-principal, ascertaining best practice among its successful competitors and adopting the methods to advance their own institutions; it is also a "useful quality tool not only for continuous improvement but it also provides the necessary comparisons for accountability purposes" (Sallis 2005, p.99).

In the more conventional, institutional provision of education, where TQM is arguably more transplantable, the determination of the consumer becomes imperative, diverse in nature and expectations. These may be categorised as

(i) primary who directly receive the service;

(ii) secondary, such as parents, governors, sponsoring employers of vocational students, all of whom have a direct stake in the education of a particular individual or in a particular institution

(iii) tertiary, who have a less direct but nonetheless crucial stakeholding in education, such as future employers, government and society as a whole;

(iv) internal, who are the employees of the institution and who have a critical stakeholding in the organisation's success (Sallis, 2005, p.22).

The process of improving quality in education includes the need to improve the environment in which it is provided, the performance of teachers, and the efficiency of the system. As aptly reflected by Goldberg and Cole (2002) following a case study on TQM application in Texas, USA, management of quality may impact how students perform, but improvements in quality can only be implemented in the education system, approach and process. They added that "faced with deteriorating state test scores in several schools, particularly those with a high population of economically disadvantaged students …

philosophy, tools, and methods of quality management [were instituted] as a means to raise student achievement through system alignment and improvement of instructional processes" (Goldberg and Cole 2002, p.8).

This study is guided by the ideology of quality in education contexts as reviewed by Goldberg and Cole (2002) and by Dahlberg and Moss (2008, p.5), for whom quality is a "constructed concept", that is "neither neutral nor self-evident, but saturated with values and assumptions".

Before focusing therefore on defining what is measured to determine quality in education, how it is implemented and the context-specific applications of quality to a specific country's education delivery, it is important to trace the origins and historical profile of TQM in Saudi Arabia. Should the values of TQM be adopted, the performance of Saudi Arabian schools could be undermined, by a lack of performance appraisal, cultural and religious obstacles to change and nonstrategic leadership. Aldaweesh et al (2012, p.462) argue "Saudi universities could benefit from the concept of leadership and tools that TQM offers to gain advantage and in improving its ranking and quality". This applies equally to the country's secondary school education. It is pertinent to review the basis upon which change is proposed, which supports the proposition in the Introduction section above that the suggestion of a revolution which overthrows and nullifies over a century of culture and tradition is not intended, and will in any case meet probable resistance. TQM is simply a useful strategic tool, and "with [its] help … an academic institution would be able to develop its own definition of quality, benchmark, and quality improvement practices in the light of customers' requirement" (Sohel-Uz-Zaman and Anjalin, 2010, p.210).

The origins of TQM are anchored in industrial production, the achievement through constant review of practices of a quality measurement standard original termed Total Quality Control, given its focus on controlling the quality of the goods produced. Deming's (1982)

argument on how to attain optimal quality for competitiveness in the market introduced a new ideology that gradually replaced "the word 'control' by 'management' with the reasoning that quality is not just a matter of control, it has to be managed" (Martinez-Lorente, Dewhurst and Dale, 1998, p.382).

Here the role of leadership in management is central. Sallis (2005, p.80-81) asserts the fundamental need for "a passion for excellence [which] cannot be communicated from behind the office desk … management by walking about … autonomy, experimentation, and support for failure … create a sense of 'family" being the new method of leadership listening and learning. TQM emerged as a way of monitoring, supervising and changing operations and relations until the customer gets the best quality goods at a fair price as the organisation regulates production costs to gain optimal competitiveness in the market and enhance profitability (Puffer and McCarthy, 1996, p.109). A simple interpretation for implementing TQM in Saudi Arabian education would require principals and teachers (the leaders), working in secondary schools (the organisations), to facilitate and actively provide the best possible education (the product) to the students (the customers), thus enabling maximal value outcomes relative to the amount of money (public funds) invested in schools (cost/price). However a question which arises in the application of TQM to an educational framework is whether students can be described as the primary consumers given that they are not the only recipient stakeholders and beneficiaries in schools (Rampa, 2005; Yau and Cheng, 2013). The quality outcomes of education are important to students, the community, society and governments, which finance the public education system (Rampa, 2005; Mehralizadeh and Safaeemoghaddam, 2010). Education cannot be defined as a universal standard product regardless of context (Moss and Dahlberg 2008, p.4). In Saudi Arabia particularly, given its faith traditions and culture, outcomes of education are not individual but collective and communal. As such, when reviewing quality management in schools, a

customer's perspective and standardised product, suggests Zairi (1994) is secondary to societal and religious tradition (Zairi, 1995).

TQM frameworks are arguably unique to individual organisations, adapting the underlying principles to the needs of the institution or business. How to facilitate the development of a TQM profile template is what this study seeks to identify, a generalisation of precepts and rules for adaptation summarised by Mohammeda et al (2012, p.326), above. A further model of interest in business is that of Deming (1982, p.49) with its emphasis on value or profitability (the outcome) with a minimalist approach to expenditure (cost) in order to achieve commercial advantage in a competitive and critical market.

In contemporary applications of TQM in public service delivery and the broader economic development of nations, using minimum resources to generate maximum value produced the Value for Money (VFM) principle, a way of striking the best balance between what is spent to generate an outcome. The specific mention of the VFM principle is absent from any published source that addresses management in the Saudi school context. Its interpretation is however a predominant characteristic of contemporary critical reviews of Saudi Arabian education. Several scholars, most notably Abir (1986), Al Salloom (1995), Al-Romi (2001), Aldaweesh, et al., (2012), Alruwaili (2013), and most recently, Alyami (2014), have highlighted, albeit narrowly and without offering examples, a new era of public education in Saudi Arabia. These researchers have noted an increased interest among administrators and regulators in Saudi Arabia in ensuring that public funds were invested to offer valuable public education producing successful outcomes for children, parents and society.

Since its development, TQM has redefined the quality of goods and service delivery to business customers, as well as the provision of services by non-business agencies. Crosby (1978, p.23) states the adoption of a TQM approach makes the optimal quality of a product

or service a customary and fundamental reality for the recipient as the organisation embraces "the art of making quality certain", improvement the basis of engagement. From a more universal perspective the VFM principle inspired the analysis of the 'Three Es' namely, Economy, Efficiency, and Effectiveness (Emmi et al., 2011, p.14; Jackson 2011, p.1; Loiy 2012, p.54). Recent practice has added a fourth 'E' to represent Equity, which ensures that the VFM analysis also "accounts for the importance of reaching different groups" particularly in public service (Jackson 2011, p.1). The VFM analysis adopts the following concepts as illustrated by Figure 5 below.

Figure 5: Value for Money Principles

Value for money: The optimum combination of whole-life cost and quality (or fitness for purpose) to meet the user's requirement. It can be assessed using the criteria of economy, efficiency and effectiveness.

CONCEPTS

Economy: Reducing the cost of resources used for an activity, with a regard for maintaining quality.

Effectiveness: Successfully achieving the intended outcomes from an activity.

Efficiency: Increasing output for a given input, or minimising input for a given output, with a regard for maintaining quality.

"E" — equity — analysis accounts for the importance of reaching different groups.[2]

Adopted From Jackson (2011), Loiy (2012) and Emmi et al. (2011)

From a theoretical perspective, managers adopt a TQM approach to cover the "sum of a company's wide effort that involves all of the employees and suppliers aiming to continuously improve the quality of the product to achieve customer satisfaction" (Dean and Bowen, 1994, p.393). Quality management has become the cornerstone of business establishments producing goods as well as organisations delivering services either as businesses or for public service (Rago 1994, p.61). According to Rago (1994, p.64), the quality-based management approach predominantly used in the industrial sector was adopted by the Swiss government in the delivery of government services. A brief review of the historical development of the Saudi education framework will be indicative of the difficulties faced in transferring TQM principles to school operations.

International Quality and Performance Standards: Frameworks for Excellence

To meet the requirement of the second part of this investigation the numerous tools and practice standards for implementing a TQM programme will be examined. These include jurisdictional and global quality awards such as the International Standard IS0 9000 series which provides measurement frameworks for excellence within a specific service or product industry (Sallis, 2002). The British Standards Institute (BSI) (1992) and the International Organisation for Standardisation (ISO) (1986) defined quality as, "the totality of features and characteristics of a product or service that bear on its ability to satisfy stated or implied needs" (Stebbing 1990, p.1). As such it is a measurable concept that can be managed of improved using assorted frameworks or tools (Stebbing 1989, p.31). The BSI (1992) thus helped define a measurable concept that can be applied to this study of the achievements of systemic educational reform in Saudi Arabia which is discussed in more detail later in the chapter.

It should be noted that other TQM application and practice tools are available to business and public service, based on precise principles and philosophies, occasionally focused wholly on improved customer satisfaction, others on continuous improvement practices, others addressing the elimination of mistakes in the production process (Haijan, 1994). These include;

a) Jurisdictional and global quality awards and certifications (Tovey, 1995; Al-Khateeb and Al-Khateeb, 2004; Al-Badri, 2005; Stebbing, 1989)

b) Deming's 14 principles of TQM (Deming 1986; Neave 1987; Omachonu and Ross, 2004)

c) Deming's Plan Do Check Act (PDCA) cycle (Weller, 1993; Omachonu and Ross, 2004)

d) Six-Sigma (Tennant, 2001; Harry and Schroeder, 2000; Omachonu and Ross, 2004)

e) Crosby's 14 Principles of Quality Improvement (Crosby, 2005; Evans and Dean, 2003; Omachonu and Ross, 2004)

f) Benchmarking quality improvement (Al-Khateeb and Al-Khateeb, 2004; Spendolini, 1992; Kaufman, 1985)

Other TQM applications tools are relatively well established but less commonly used, including:

g) Juran's 7 Principles of TQM (Evans and Dean, 2003; Omachonu and Ross, 2004)

h) School-Based Quality Control Circle (Kudair, 2005; Blankstein, 1992)

i) Ishikawa's Principles of Improvement (Ishikawa, 1985; Ishikawa, 1990)

j) Kaizen Strategy (Imai, 1986; Omachonu and Ross, 2004)

The researcher has reviewed these TQM applications tools and whilst each gives valuable guidance in addressing the problems and practices they are developed for, few are relevant to school-based quality improvement due to limited clear measurable targets. Consequently, the third consideration for this part of the literature review is the identification of practice, management and measurement tools which will aid improvement in Saudi Arabian schools.

The TQM model of improvement mechanics was, according to Bemowsky (1992, p.18), contextualised by the US Naval Air Systems Command in 1985 in an attempt to emulate the Japanese management style focused on standardisation and perpetual quality improvement. It was further adapted to different business environments, strategically distinct in their approaches but with the core intention to provide a strategic framework of customised strategies for continuous quality improvement (Murgatroyd and Morgan, 1993). Deming (1982) asserts an organisation remains competitive in the market, not just by attaining a competitive advantage, but also by sustaining its competitiveness.

The Application of Deming's Principles for Business Management in the School

Deming is considered the father of modern quality management (Neave, 1987). His fourteen Key Principles for Management was first published in his 1982 book "*Quality, Productivity, and Competitive Position*" and reiterated in 1986 The book was later renamed and republished in 1986 (Deming 1986, p. 51). Deming argued that "a long-term commitment to new learning and new philosophy is required of any management that seeks transformation (since) the timid and the fainthearted, and the people that expect quick results, are doomed to disappointment" (Deming 1986). Most of the 14 principles for management proposed by Deming (1986) were geared towards "improving the effectiveness of a business or organisation" and were thus largely philosophical though a few were more programmatic proposals for a transformation of the management process. Although designed for business application his principles may be critically reviewed for transplantation into school leadership and change, the adoption of statistical principles to strategically define the management of an organisation regardless of whether it is a service or product-based organisation. His principles are outlined in Figure 6, overleaf.

Figure 6: Illustration of Deming's 14 Principles for Management as Presented

by Neave (1987)

Deming's 14 Principles for Management
Adapted from Neave (1987, pp. 361 – 369)
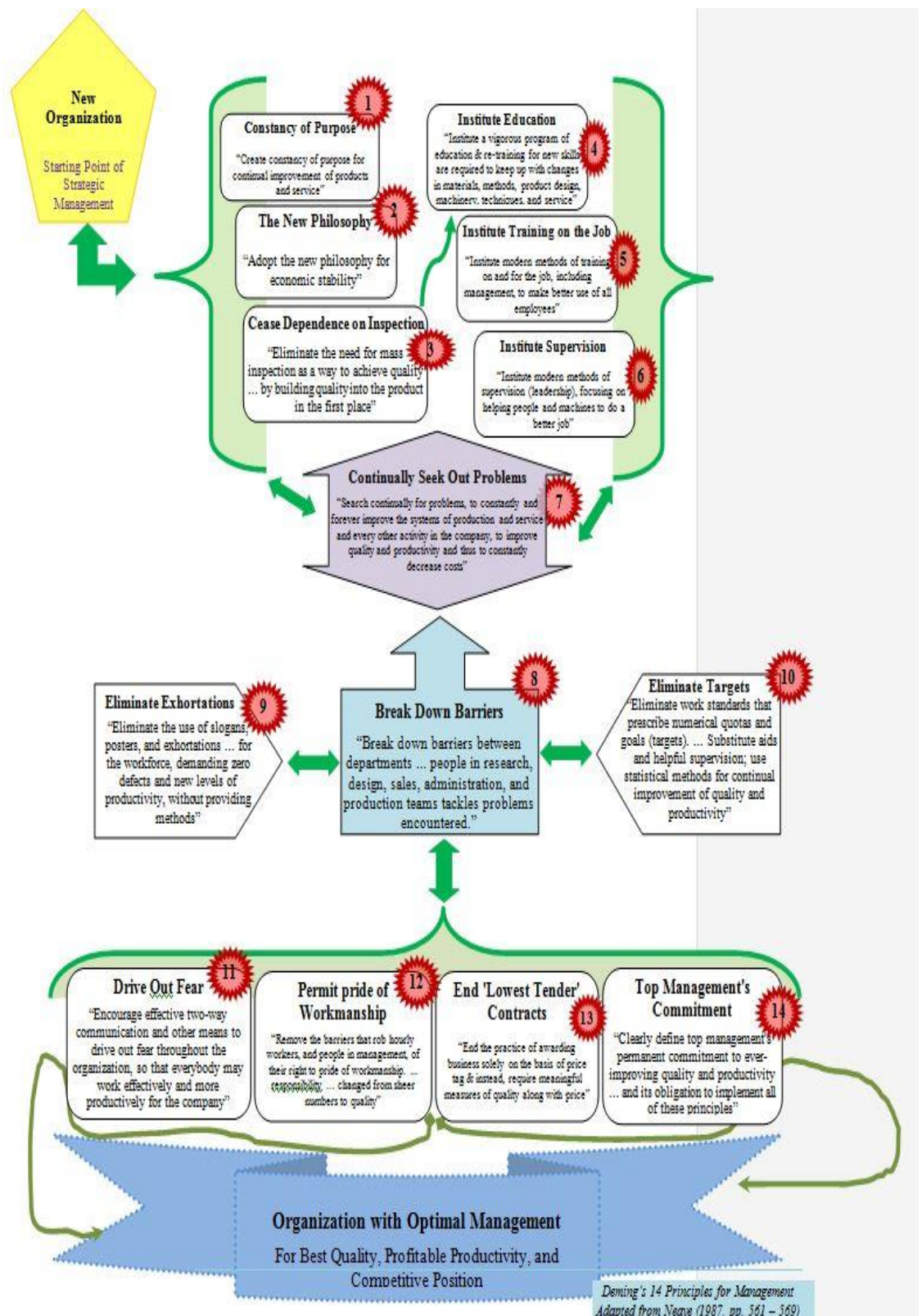
Three of these principles (1, 5 and 13) focused on the need for continuous improvement. The first recommended that organization managers should invest in creating the "constancy of purpose toward improvement of product and service" (p. 37), focusing on becoming competitive and sustaining competitiveness in the market. Importantly, this principle recommends that an organization's management should create a strategic way to "allocate resources to provide for long-range needs rather than short-term profitability, with a plan to become competitive, to stay in business, and to provide jobs" (Neave (1987, p. 564). This study evaluated this principle based on leaders' and teachers' understanding of improving Saudi Arabian schools for the long-term, rather than for the convenience of daily operations. The other three principles which are number eight, eleven and fourteen which are breakdown barriers between departments and people in research, design administration and tackling problems encountered in the daily practice of school. Other principles which focus on drive out fear through organisation so that everyone may work effectively and more productivity in the institution. The final is the top management which clearly defined top management commitment which clearly defined top management permanent commitment of improving quality and productivity and its obligation to implement all these principles.

Furthermore, Deming (1962) proposed the need to improve the quality of production and services constantly and forever by making the organization integrate progressive quality improvements that also consistently decrease costs. In the fourth principle, Deming (1986) proposed that an organization must "institute a vigorous program of education and self-improvement" (p. 14). The need for continuous improvement is therefore not only a core mandate of the TQM approach, but a requisite component of strategic quality management as proposed by Deming (1986), applicable even to the management of schools.

Global Perspectives on TQM and School-Based Improvement

Much has been made of the introduction of TQM practices in schools but the major question is how to employ and evaluate the model in the improvement initiative as a universal global imperative. This demands evidence based applicability and value. According to Flemming (2000, p.59), "educational organisations are judged to some extent on the ways in which they engage with and adopt change in response to national reform agendas". Several prominent scholars have noted the trend of introducing the TQM approach to schools across diverse national frameworks as a measure of improving the quality of education in schools, including Duignan (1986), Zairi (1995), and Lagrosen (1999). This does not mean that because a system of leadership and management works somewhere else it can be transplanted to the Saudi context.

Adopting a neutral jurisdictional stance when reviewing the improvement of schools based on the TQM approach, Duignan (1986) proposed a novel summary of TQM-based school improvement, critically and strategically selecting previous research to investigate how to improve the effectiveness of schooling. His conclusions may be summarised as "the centrality of school culture and climate are factors that influence effectiveness" (Duignan, 1986, p.69). School culture must progressively and continuously adopt positive change and improvement and must be shared by all stakeholders who must be aware of and share the vision of the leadership. Staff, students and parents must be committed to the "belief system which values academic achievement, creates high expectations for everybody's performance, demands order and discipline so that students can learn effectively, and encourages collaborative and collegial work and relationships" (Duignan, 1986, p.69). From a national perspective these factors are reflective of the vision for change recommended by the Ministry of Economy and Planning (2009) in the 8th Saudi Development Plan, for an

increasingly competitive education curriculum and management approach as Saudi Arabia competes in the global market.

Duignan's (1986) 30-year-old findings echo a reality that emerged from this literature review that TQM principles are most effective when it is allied to a vision of culture change. Organisational or institutional culture provides a launch pad that can either frustrate or inspire the implementation of leadership programmes based on business practices. Zairi (1995) later critically reviewed the potential advantages of adopting TQM in schools and the response of schools to its implementation to promote improvement and sustained competitiveness where the student is viewed as the customer. He finds that whilst TQM "continues to spread in industry and commerce on a global basis, despite various levels of scepticism and doubt expressed about its potential to lead to competitive benefits," the initiatives have proved effective when refining "education for superior performance" (Zairi, 1995, p.29). The approach gradually reshaped schools at all levels towards better performance at lower cost, from the perspective of education providers. This is defined in terms of the skills and competence of graduating students, improvement in the quality of education provided, competitively qualified teachers, and principals entrusted to manage public education. It was helping to strategically refine the effectiveness of school operations, both in management and teaching and improving students' competitive academic performance in curriculum outcomes and the cogency of knowledge and skills delivered to students.

Regardless of the degree of success attained, improved school performance should only accrue at a lesser cost (Zairi, 1995). Although Zairi noted several barriers to the introduction of TQM principles, he asserts they were gradually triggering "a complete and radical transformation of education and training provision capable of meeting modern business requirements" (p.29). It aided a "developing integrated approach to Total Quality

Education (TQE)," by strategically assisting those who provide both education and training to attain a more competitive position in the market. TQM principles were not wholly welcomed with approval by senior or governmental management teachers and schools leaders support of TQM indicated "a high degree of enthusiasm and positive response to the challenges" (Zairi, 1995 p.32). The adaptation to the education context received a new name, Total Quality Education (TQE) to "assist providers of education and training to become more competitive" (Zairi, 1995 p.34).

Nations and education providers face intense competition in the globalised market, education and training provided is conceived as comparable in benefits and results, "competitive benefits", to the options available elsewhere. The more an education system can help competent graduates join the contemporary job market, with increasingly advancing technological prowess, the more such an education system is deemed to be competitively productive. This explains Alruwaili's (2013) assertion that some countries are "losing the productivity race to world-class competitors" (p.26). The more successful competitive nations have optimised their national education systems to facilitate modern forms of human skills accumulation demanded by the contemporary job market. This is a practice relatively new to the Saudi traditional education frameworks. More competitive nations ensure that the cost involved in improving school outcomes is affordable, justified and based on student outcomes, and where TQM principles are adopted and retained they are is implemented in harmony with their context (Zairi, 1995). The Total Quality Education approach is uniquely optimised for this change.

Lagrosen's (1999) work provides an example of the effect of a TQM approach in four public schools in Sweden to improve their normal operations and attainment of goals. His was a qualitative research method, collecting data from schools and stakeholders using focus-group interview, observation, feedback seminars, and in-depth interview instruments

in the sampled schools. Considerable positivity was found in the quality of all dimensions of public education (Lagrosen, 1999, p.328). Eight lessons were learned from his study which are taken account of as part of the evaluation process for Saudi schools, namely

i.   broader and relevant understanding of schools as organisations with variant but complementing stakeholders,

ii. greater and sustained job satisfaction levels among the teachers and staff,

iii. better and more productive communication on all critical levels particularly with parents and students,

iv. increased participation in learning and building a positive learning environment

v.   enhanced co-operation between school departments and between personnel, stakeholders and community,

vi. improved management transforming autocratic bureaucracy to model leadership,

vii. comprehensive, justified, accountable, and effective performance, achievements and failures evaluations, and

viii. increased stakeholders participation in implementing remedial actions for errors and shortcomings (Lagrosen 1999, p.328).

This list provides an effective checklist for researchers in the assessment of the value and success of TQM adoption in a TQE context. School improvement emerges from positive cultural change, thus linking change to school management and a new leadership perspective and practice. This relationship is to be investigated herein in a global context before examining the Saudi framework.

Lagrosen (1999, p.331) suggests the changing of operations in a school management structure accrues "some negative effects", and thus resistance. These include "an increased workload and a sense of insecurity due to the changes taking place" (p.331). Alruwaili (2013) views this as creating the potential confusion of a "corresponding proliferation of frameworks" that limits the implementation of TQM in educational institutions. These frameworks include

i.   pedagogical and curricula frameworks (Srikanthan and Dalrymple, 2003, p.127),

ii.   static collegial and managerial rationality among the leadership and staff of a school,

iii. traditional facilitative and bureaucratic rationalities (Mehralizadeh and Safaeemoghaddam, 2010, p.175)

iv.   abstract uncertainty about what the change entails and promises (Alruwaili, 2013, p.26),

v.   the subjectivity melted upon the stakeholders as a demand for change (Alruwaili, 2013, p.28),

vi.   dominant cultural frameworks that defined the traditional order of operations (Zairi and Alsughayir, 2011, p.641) as well as

vii. political and power-game frameworks (Brennan, de Varies and Williams, 1997, p.62), and

viii. the demand for a stakeholder engagement framework (Mehralizadeh and Safaeemoghaddam, 2010, p.177).

These limitations and barriers to TQM changes aimed at school improvement can be strategically mitigated using precise models of implementation. Such models have included Juran's 7 principles, benchmarking quality improvement, Crosby's 14 principles of quality improvement, Deming's Plan Do Check Act, school-based quality control circle, Ishikawa's principles of improvement, and Deming's 14 principles of TQM. Nonetheless, researchers and scholars continue to question the best possible way of implementing TQM initiatives in school contexts with prominent barriers. The Deming Principles have been considered by this researcher as most appropriate for adaptation to the education context.

Srikanthan and Dalrymple's (2003) critical discussion of the transplantation of a business-inclined model of TQM to schools whose operations eschewed profitability considerations and lacked market competitiveness. Educational institutions now face "the absence of agreement on a model for quality" given that the TQM approach and the derived quality models of application have an "industrial origin" and thus a profitability and market-

based competitiveness as their focus (Srikanthan and Dalrymple, 2003, p.128). Variants of the TQM approach and reviews of non-TQM alternatives have to be considered for value to education improvement. This study is limited to the investigation and evaluation of the implementation of TQM, and not any other alternative tool for school improvement.

Evidently, and obviously, not all TQM models will work effectively and sustainably in all schools given that they have a fundamentally business base and in any case each school has a unique context with diverse stakeholders. Zairi and Alsughayir (2011) assert that schools, and indeed businesses, must adopt a bespoke quality framework or model for its own socio-cultural and political contexts. Building a unique framework at the outset of the TQM process in the planning stage will aid adaptation to its context (Alruwaili, 2013, p.31). Each national system, and indeed region and individual schools must account for their unique resources, barriers, environment and culture, and how these factors uniquely shape their TQM philosophy. This is integral to the adoption of the TQM approach in Saudi Arabian schools, based on the experience of other nations. Simply because a concept sounds useful does not mean account does not have to be taken of whether it works elsewhere.

Credible evidence of improved outcomes effected by TQM practices are indicated by Rampa's (2005) case study of black schools in South Africa which embraced what he calls a resuscitation of a culture of learning, teaching and services. This is predicated upon the Culture of Learning, Teaching and Services (COLTS) programme proposed by Chisholm and Vally (1996, p.4). Rampa (2005) asserted that "the breakdown of COLTS in these schools could be ascribed to conditions in black schools during the past 50 years - years fraught with conflict" (p.4). Political turmoil and conflict in society and the schools had undermined sound governance and leadership in their framework leading to breakdown of "value systems, attitudes, ethos and morale amongst educators" (Rampa 2005, p.5). They schools suffered profoundly, lacking educational achievement, professional recognition,

dedication and motivation, matched with a lack of commitment and vibrant indiscipline, irresponsibility and inadequate authority in leadership. A change of approach utilising TQM principles of cooperation and goal setting had significant success, progressively transforming the culture (Rampa, 2005). Achievement, professional recognition and reward became embedded in the new cultural structure, evidence that the concept of culture is not a static given, but is re-creatable for the betterment of society.

Stringham (2004) notes that business values, aims, policies and practices differ markedly to public service application of TQM. This is particularly so in the unique context of schools, especially in terms of measures and standards, but the model remains a useful guiding framework for improvement but will not of course answer all management and leadership needs (Rampa, 2005). Existing research studies have tended to avoid evaluation of TQM in the education sector, the measurement of value absent, for example, in O'Mahony and Garavan's (2012) proposal for implementing the TQM framework in the organisation of higher education and Louis and Miles' 1992 research on how to improve urban high schools. Hammersley-Fletcher and Qualter (2010) employed pupil performance as the measure of improvement in schools but did not assess the benefits of cooperation, professional recognition, dedication and motivation outlined by Rampa (2005).

In Saudi studies, Abir (1986) Al Salloom (1995) looked only at student achievement deficits of inadequate leadership rather than the broader effect upon other stakeholders review of the Saudi Arabian education sector. Aldaweesh et al (2012) researched the relationship between TQM implementation and the leadership role in the Saudi higher education framework, while Alyami (2014) evaluated the success of Saudi Arabian Tatweer Schools after adopting TQM. These studies also tended to have a limited focus, which did not include a broad review and assessment of TQM's various practice aims.

Rampa (2005) captured how the adoption of TQM in schools can improve significant values that directly influence the performance and success of South African schools and was followed by Yau and Cheng (2013) in Hong Kong when they profiled the adoption of TQM in Hong King's primary schools. They found that the in pursuit of improvements in quality management in Hong Kong's primary schools, most had implemented a culture-changing framework of (a) duties and values, (b) teams and systems, (c) changes and resources, and (d) simultaneously empowering the staff and meeting the needs of their pupils (Yau and Cheng, 2013, p.16). They conducted an empirical study to examine how the relationships between these frameworks were influencing school improvement using a quantitative survey research design, with a survey questionnaire issued to 322 primary school stakeholders in 83 selected primary schools across Hong Kong. They then correlated and modelled the data using structural equations and found that these culture-changing frameworks were progressively improving the quality of education in Hong Kong's primary schools both progressively and sustainably. The analysis concluded that, the "relationships among 'values and duties', 'systems and teams', 'resources and changes', and 'meeting pupil needs and empowering staff'" indicate a progressive and sustainable improvement of primary schools in Hong Kong (Yau and Cheng, 2013, p.27). Several factors were identified which significantly and positively affected quality management in Hong Kong schools including (a) a changing school climate and culture, (b) emphasis on student backgrounds and school processes, (c) observing and optimising school traditions, and (d) positively nurturing the community's expectation of the school. To sustain this improvement in the effectiveness in Hong Kong's primary schools, Yau and Cheng (2013) further highlighted the need for "the leadership of principals, teachers and parents" to acknowledge who accepted that the relevance of knowledge changed over time and thus learners must pursue their education as a life-long, professional development (p.27).

These factors reflect the similar background of need for change in Saudi Arabian schools, characterised by

i.   constraining cultural factors competing with educational advancement (Al-Eisa, 2009; Al-Romi, 2001),

ii.   a mismatch between the curriculum demands to provide skills needed by a developing society (Al-Romi, 2001) and

iii. the lack of a national political vision in the country's education programs, coupled with

iv.   retrogressive traditional policies (Al-Eisa, 2009).

The literature concurs that modern public schools in Saudi Arabia need to change their management approach from a pro-religious, communal-centric approach to become competitive and standardised centres of contemporary education, based on the findings generated by the research of Al Salloom (1995), Aldaweesh et al (2012), Al-Eisa (2009), Alruwaili (2013), and Alyami (2014).

Systematic, progressive, and sustainable quality improvement is a central principle of the TQM framework and it is a tool of management in schools which adopt the practices. Al-Jammal and Ghamrawi (2013) investigated how TQM helps improve the perceptions of school leaders and teachers in public and private schools in Beirut, Lebanon" by optimising school effectiveness. They reported that the empirical results of their qualitative study positively supported a new era of school improvement, attributing gains to the adoption of the quality standards of TQM principles identified by Jamaa (2010) in his Indonesian high school research. These included (a) academic products/outputs/results, (b) essential physical learning environment and resources to boost education outcomes, (c) critical human resource factors which regulate the role of teachers, (d) student services to optimise the learning process, and (e) the actual learning processes through the education cycle (Al-Jammal and

Ghamrawi, 2013, p.492). Figure 7 illustrates the conceptual quality framework adopted and used by Al-Jammal and Ghamrawi (2013) to evaluate TQM-based quality management of Lebanese schools and by Jamaa (2010) in Indonesia.

Figure 7: The conceptual Framework of TQM and Student Academic Performance

Figure 1: The Conceptual Framework of TQM and Student Academic Performance
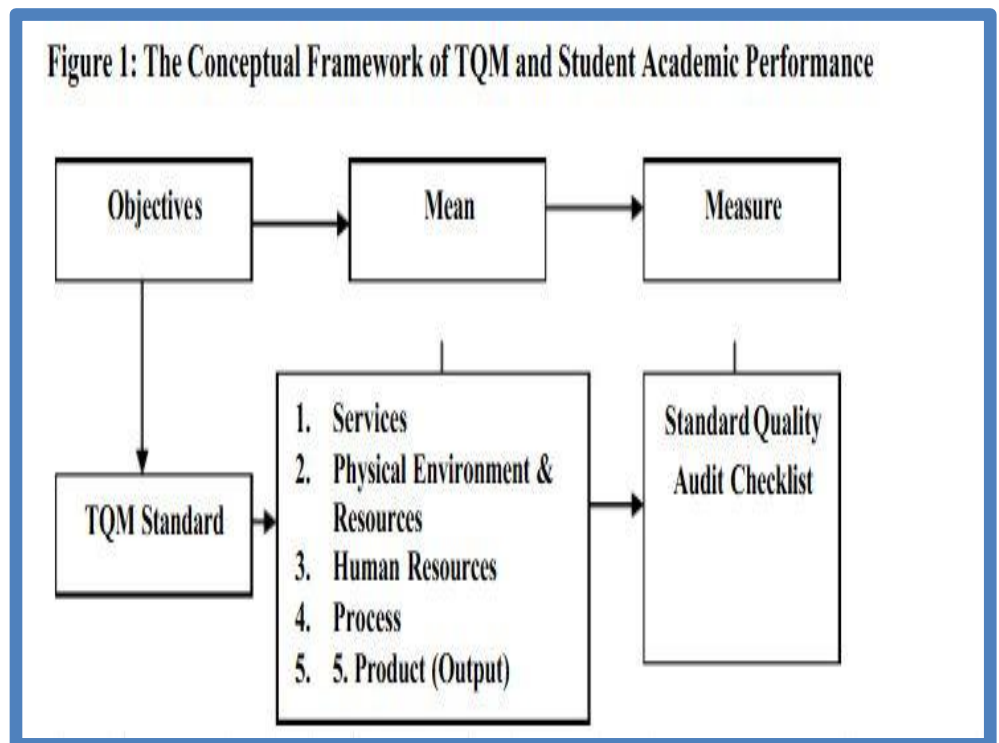
Rungtusanatham et al. (2005) suggests that the TQM approach, adapted to the specific nature of the national educational frameworks has some success as a programme to assist school leadership develop the quality of their institutions, a "convergence hypothesis"

of TQM principles with cultural variants. This researcher sought studies which undermined the value of TQM principles in education provision improvement to ascertain how adaptation could 'fix' deficiencies in the process and application. It appears the previous literature is, as a whole, broadly supportive of its value-added implementation. This study therefore seeks evidence of whether the relatively unique culture, traditions and government control of the education process of Saudi Arabia will accept and embed the essentially Western capitalist TQM approach in its public schools. Education leaders in Saudi Arabian schools are embracing a gradual improvement process by somewhat tentatively adopting TQM principles of cooperation, quality monitoring and change to build quality and effectiveness in public schools according to numerous authors such as Alruwaili (2013), Abir (1986), Al Salloom (1995), Aldaweesh et al. (2012) as well as Alyami (2014).

Alruwaili (2013) notes "the conditions, policies, and practices which normally suit TQM have been adopted in Saudi Arabia out of their relational context" as the country pursues improved quality of education (p.32). With this in mind it is proposed herein to collect data from the sampled Saudi Arabian schools focusing on the contextual application of the TQM approach rather than using a standardised template. It is a reflection of the fact that the Saudi government has been seeking rapid improvement in the quality of education provision (Alssaloom, 2005). The introduction of sustained generous education budgets, decentralisation of education leadership and technological innovations has yet, however, to be reflected in outcomes which satisfy the aspirations and needs of professionals and business in the country (Alssaloom, 2005, p.47). Increased workforce competence is needed in the competitive global market and can only be domestically achieved through the transformation of traditional schools to modern institutions of learning (Al-Romi, 2001; Alyami, 2014). Aldaweesh et al (2012) assert that "due to the increase of recent competition in different sectors including the higher education many Middle Eastern universities

(particularly in Saudi Arabia) are trying their best to increase their efficiency and effectiveness in higher education by adopting TQM principles" (p.461).

The effectiveness of a school in the production of desire outcomes requires all stakeholders to collaborate to enable optimal student performance, socially, culturally and economically (Dahlberg and Moss 2005, p.26). Using a TQM model, specifically adapted to education provision contexts, teachers, students and school leaders, as well as government investors and supervisors, define strategically managed input to yield the most effective output/outcome in student performance of that school (Kenway 1994, p.73). Kenway (1994) describes this as the process of "economising education" which he suggests has become mandatory across the globe, where higher productivity in terms of student performance has become critical at a lower cost.

Adapting the TQM Approach in Saudi Arabian Schools

Alruwaili (2013) asserts the Saudi Arabian government has initiated consultations and stakeholder meetings with the Directors of Directorates and Deputy Directorate Directors, the Education Ministry's most senior decision-makers regarding schools pioneering a TQM leadership approach adapted from business practices. Policy and protocol officials in charge of the planning and development of the national education program, educational quality consultants, head teachers and specialist teachers are involved with the core ambition of reform and improvement of the entire education system.

It envisages an overhaul of the ethos of education provision in a recognised international framework of quality rather than a "rigid and outdated, responding too slowly to the changes in the world" system (Alssaloom, 2005 p.31). Institutions have been managed against a background of jurisdictional importance where performance is not evaluated based on society's needs and benchmarking against more established and developed economies is absent (Al-Romi, 2001; Abir, 1986; Aldaweesh, et al 2012). They were not responsive to

the need for professional human skills in a developing economy that is seeking to establish itself as a globally competitive region (Al-Eisa, 2009; Al-Romi, 2001). School, family and community involvement in local education, especially at primary level, creates a synergy of relationships which demystifies what happens in children's schooling and shares knowledge of what is being achieved (Alameen, Male and Palaiologou, 2015, p.131). There is still however some reticence experienced by schools in their attempts to engage with such ley stakeholders which may be due to work commitments, culture, or simply the failure of the principal to establish an open relationship.

Alssaloom (2005) argues that Saudi education institutions have previously functioned traditionally, casually and without focusing on outcomes. Unlike 21st century schools in other nations, Saudi schools have been run with "teaching, management, and leadership processes (that) fail entirely to match the current advanced approaches worldwide" (Alssaloom, 2005, p.47). Their curricula and standards are not comparable to those of other more established economies and the creation and monitoring of a learner centred environment is central to reform and requires the delegation of authority to staff trained beyond their subject to provide and activity rich curriculum (Algarni and Male, 2014).

The process of economising education by using the TQM approach to optimise student performance is exemplified by the launch of the TQM-based Tatweer schools (Alyami, 2014). Alyami (2014) set out common exam-based expectations for such schools, including expectations upon students to win assorted national and international awards for their performance, graduate having "acquired the skills needed to conduct their own research," and demonstrate increased communication skills, self-reliance, and self-confidence. Further, some students now look "for information rather than receive it", learning from their own research, become more innovative in their thinking with an ability

to conduct complex discussions (Alyami, 2014, p.1428). Student achievement has not yet improved significantly, arguably because changes in structural practices take time to embed Alyami (2014). Al-Jammal and Ghamrawi (2013) noted resistance from teaching staff who were yet to be convinced of the value of TQM philosophies. In his Saudi study of male and female schools however Alruwaili (2013) found that school leaders and managers perceive the TQM implementation as an essential tool in the shaping of new teacher training opportunities, inter-staff relationships and cooperation, reward systems and rectifying mismanagement practices (p.26). There is some evidence of success of the adaptation of the TQM philosophy and practices in the Saudi context in improving management and outcomes but these are somewhat abstract and lack formal and empirical evaluation. This is a purpose of the present study.

Influencing change in Saudi Arabia

The aim of this study is based on the identification of 'quality' features in schools against which to define and measure improvement using in part Deming's (1986) principles to ascertain how teachers in Saudi Arabian schools have adopted and created constancy of purpose for continual improvement of the education they provide. The leadership principles of TQM theories, matched with transformational leadership team building, collaboration and the exchange of ideas are more likely to produce, it is argued, more measurable monitored improvement across the pedagogical sphere (Ah-Teck. 2011). Moving beyond Alssaloom's (2005) criticisms there has been a shift in leadership when charting the future of Saudi Arabian schools as central government recognised the need to invest in improving quality, a mandate imposed by global standards. That must be directly overseen by leader adopting a transformational approach with staff, performing as "role models, [to] maintain optimism,

mobilise commitment and show concern for followers' needs and for organisational development" (Alameen, Male and Palaiologou 2015, p.123).

Although positive change is occurring, progress has been slow in upgrading the curriculum to global standards as the Kingdom continues to integrate professional expatriates from western nations. TQM is not necessarily the sole basis of reform, the panacea to the ills of the education provision framework. Nevertheless the choice of principles and practices adoptable to the specific sector and institutions will facilitate performance-based comparisons as schools attempt to become competitive, particularly in the higher education sector (Al-Eisa, 2009; Al-Romi, 2001). The priority of the reforming Saudi education system has been to transform students into modern-day human capital in a capitalist culture of production (Al-Romi, 2001, p.2).

Care should be taken however in characterising Saudi Arabia's schools as sustainably improving or otherwise since there remains a question about how to judge such improvement. Alssaloom (2005) defines this improvement in terms of teaching practices, as well as the school management and leadership approaches adopted by contemporary Saudi schools. Such practices have included competition-based performance rating, formulation of schools-specific goals, responding to the need for competitiveness, and increased participation of stakeholders when designing the school curriculum (Aldaweesh et al., 2012; Alyami, R. (2014). For his part, Alruwaili (2013, p.26) focused on "implementation … challenges … training opportunities, reward systems, workplace relations, and mismanagement practices" to define school effectiveness. However, there remains a significant gap in the literature, when it comes to comprehensive quality management and sustained improvement frameworks employed by schools. This raises the need for studies such as this in validating a credible quality management approach to assist educational

leaders in their selection and development of TQM quality improvement processes suited to the Saudi Arabian context.

Change has to be evidence based, on credible research methodologies, and although reform has been implemented, this has tended to be on an abstract basis (Alruwaili, 2013, p. 26; Alyami, 2014; Alssaloom, 2005; Al-Eisa, 2009). Just because something sounds good, does not mean it will fit. The available literature attests to the fact that Saudi Arabia has revised its national approach to education, embraced the need to optimise the level and standards of public education offered to its citizens, and invested progressively towards improvement (Al-Jammal and Ghamrawi, 2013; Aldaweesh et al., 2012; Alyami, 2014; Alssaloom, 2005; Al-Eisa, 2009). O'Mahony and Garavan (2012, p.186) note the "political, economic and socio-cultural factors" that define public education "are presently steering positive quality-based change in educational institutions". The 8th Saudi Development Plan 2005-2009 asserted "employment in the public sector is now approaching saturation amidst signs that growing incompatibility between outputs of the education and training system and requirements of development is leading to structural unemployment among Saudis" (Ministry of Economy and Planning 2009, p. 26). The framework produced only inadequately skilled graduates in the commercial, technical, and capitalistic demands of the growing economy thus denying employment opportunities for young nationals (Al-Romi, 2001; Al-Eisa, 2009).

The plan stipulated the Ministry of Education must enforce "official accountability in education and move to develop it at lower cost and higher quality in the shortest possible time in order to deal efficiently with the challenges posed by global scientific development and successive technical advances (Ministry of Economy and Planning 2009, p.11). The public education curriculum at all levels had to be reformed, modernised and standardised for global human resource needs.

The government approach to the quality of public education has evidently changed, a perceptible commitment to quality improvements with increased emphases on economic, scientific and technological skills in the contemporary curriculum as well as in the management of public education directorates (Alruwaili 2013, p.26; Alyami, 2014; Alssaloom, 2005; Al-Eisa, 2009). The stated goal was that "by 2024, the Saudi economy will be a developed, thriving and prosperous economy based on sustainable foundations …[with] a high quality education and training system" (Ministry of Economy and Planning 2009, p.9). Table 1 below exemplifies the trend toward increasing education qualifications in the Saudi Arabian workforce from 2004 with a projected growth rate by 2014.

Table 1: Trends in Qualification of the Saudi Workforce by Level of Education since 2004 and as Projected to 2014 by the Ministry of Economy and Planning (2009, p. 19)

Description	Saudi Workforces (000)					Average Annual Growth Rate 2004–2024
	2004	2009	2014	2019	2024	
Total Saudi Manpower	**3804.19**	**4885.96**	**6757.04**	**8984.45**	**11850.18**	**5.9**
– Without qualifications	551.61	547.23	628.4	700.79	793.96	1.8
– Primary education	696.17	684.03	783.82	880.48	995.42	1.8
– Intermediate education	699.97	1035.82	1283.84	1338.68	948.01	1.5
– Secondary education	1046.15	1114.00	1891.97	3135.57	5214.08	8.4
– University education	810.29	1504.88	2169.01	2928.93	3898.71	8.2

In January 2009 the government released a circular (No. 42/5/8/10/17), just before a four day national conference for education leaders, directing the 83 Education Directorates in the country to "introduce TQM" as part of the school management mantra (Alruwaili, 2013, p.27). 1,382 invited guests included Directors of Directorates, Deputy Directorate

Directors, the Education Ministry's senior most decision-makers as well as policy and protocol officials in charge of the planning and development of the national education program. Key speakers at the conference included World Bank officials, representatives from the American Society for Quality Standards and Awards, the Organization for Economic and Development, the Canadian Ministry of Education, and David Hutchins International Quality College amongst others.

The circular and the experience and expertise of the invited guests demonstrate that the Saudi Arabian government has embraced the need for quality-based school improvements to meet international standards, acknowledging the need to apply the TQM philosophy where appropriate to education provision. The abstract theoretical mechanism for positive change is fuelled by a philosophical vision of improving and sustaining quality education outcomes in terms of the content of the curriculum, in the management of schools, and in the adoption of international standards for training the critically essential skills of a gradually developing and globalising economy. Nevertheless it is somewhat disturbing that in a study of Saudi primary schools,   state that insofar as mission and vision declarations "some people in organisations do not take these statements seriously or know the purpose of the organisation and most respondents had not been involved in discussion on their drafting (Alameen, Male and Palaiologo, 2015, p.129).

Alruwaili (2013) asserts the relevance of investigating TQM applications in Saudi Arabian public schools in his recent research on the adoption of TQM initiatives by the Education Directorates in Saudi Arabian provinces. He conducted 40 interviews accompanied by unstructured observations of the provincial directorates, complemented by documentary analysis of institutional policies. It emerged from the study that two case studies of provincial Directorates (the Eastern Directorate and the Aljouf Directorate), had already embraced and implemented TQM initiatives, "even before the ministerial

compulsion" (p. 26). It should be noted that each of the diverse states which make up the Kingdom have their own particular education philosophies and practices which are under pressure to reform. Alruwaili (2013) concluded that while the nature of progress to date it was still emerging and developing against the embedded environmental and socioeconomic fabric of local cultures. The reform process largely enforced universal management approaches of TQM. School leaders primarily functioned as actors in the school improvement process and had gradually "become leaders rather than controllers, providing the vision and inspiration to produce quality and strive for 'excellence' themselves," and by so doing embracing the TQM philosophy into their policies and practices (Alruwaili, 2013, p.32).

The adoption and implementation process of TQM in Saudi Arabia has been limited by "constraining forces, whether personal, professional, or organisational" (Alruwaili, 2013, p.29). Three of the most pertinent to this study included (a) bureaucratic restrictions of the Saudi Arabian education system, namely centralised management where education is primarily influenced by the traditional top-down authority structure, (b) education leaders who lacked educational achievements and or who have inadequate managerial and administrative training among contemporary leaders, and (c) a poor reward system that demotes school leaders where school leaders have tenure, fixed monthly pay and permanent contracts valid for the life of the individual (Alruwaili, 2013, p.29-30). The other constraining forces negatively impacting on the implementation of the TQM approach in the Saudi education system included poor workplace relations, widespread corruption and malpractices, and the lack of physical and technological resources (Alruwaili, 2013, p.31).

TQM and Change Management

The review of the studies and literature herein has provided an evidential foundation for the introduction of adapted TQM tools. The role and enthusiasm of educational leaders cannot be overstated in the implementation of changes to institutional practices, ideologies, and approaches which encompass each stakeholder. This stimulates organisational transformation focused on continuous improvement. Bunker and Wakefield (2006) characterised modern times as times of change signified by increased competition across nations, unprecedented demands on the professional competence of the workforce, and increased competitiveness of organisations' productivity. The role and value of schools may remain the same, to provide a productive knowledgeable citizenry which is able to enhance the lives of their community and nation. Their leaders face the challenges of a globalised community and unprecedented economic, social, cultural and political demands and must embrace, willingly or otherwise, "the context of significant, unrelenting change" (Bunker, and Wakefield 2006, p.1).

Alyami (2014) has argued that Saudi Arabia has had to embrace the need for global competitiveness in the standards of its education framework. There is an emerging agenda for change in an increasingly global landscape and standardised quality improvements to gain a footing among international competitors (Aldaweesh et al., 2012). It is no longer enough to have Saudi Arabian style traditional, faith orientated schools; they need to be competitively comparable to schools in other developed and developing nations, based on what is taught, how it is taught, and how the students perform (Al Salloom, 1995; Al-Khateeb and Al-Khateeb, 2004; Al-Romi, 2001; Alruwaili, 2013; Alyami, 2014).

The TQM philosophy depends on a leadership prepared to initiate, shape and sustain improved academic performance through inspiration, guidance and monitoring. Bennett et al. (2003) argued this is best implemented in form of distributed leadership, where the school

leaders inspire, motivate and guide teachers, parents and students to take an active role in shaping their change process positively. Delegating authority to teams places principals in contemporary public schools as leading actors in the improvement process. They are no longer merely school controllers but "(providers of) the vision and inspiration (that can) produce quality and strive for excellence themselves" (Alruwaili (2013, p.32). This is an aim of TQM tool use. Al-Jammal and Ghamrawi (2013) in their study of Lebanese schools noted the success of TQM principles which prioritised operational effectiveness inspired and supported by school leaders and teachers (p.488). The linking of "people, power, and culture" enables education leaders to use their authority creatively to shape cultural change towards improvements that society and schools support and are involved in (Busher 2006, p.72). Sallis (2005, p.136) diagrammatically summarises the interaction of the elements of TQM in school improvement as a basis for strategic planning which accounts for school and stakeholder needs and expectations, effecting and monitoring change in a new institutional framework in which there has been considerable input from both external, but particularly internal interests in educational quality (figure 8, below).
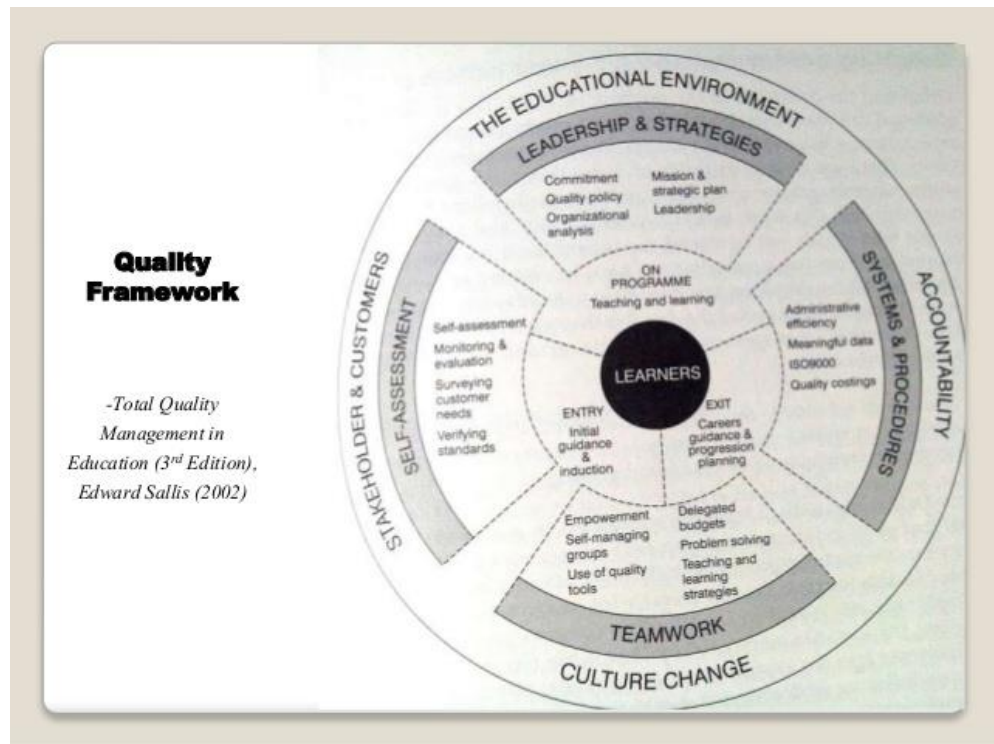
Figure 8: Interaction of the elements of TQM in school improvement

There are institutional and cultural obstacles to such fundamental change in Saudi Arabia, a resistance to overhaul of the traditional 'way things are done'. This includes the adoption of TQM tools in a context of abstract uncertainty of the nature of the change and promises it makes (Alruwaili, 2013, p.26). A new vision, sense of inspiration and leadership style is vital to achieve quality outcomes where these have previously failed to be delivered, and TQM has proven results elsewhere (Alruwaili, 2013, p.32).

The measurement standards of improving quality and competitiveness have variously been deemed to be fair and appropriate in numerous and assorted organisations, with variations to feature the contextual interests of each, an adaptation achieved by planning and understanding of aims and goals (Rago, 1994, p.61).

The adoption of TQM practices as part of a school strategy of improvement is built on goals of better student performance, academic standards that can compete around the globe, active participation of academia in positively influencing economic development, as

well as matching the human resource capital with the necessary professional skills and competence in society (Al-Eisa, 2009; Aldaweesh et al., 2012; Al-Khateeb and Al-Khateeb, 2004; Alruwaili, 2013; Alssaloom, 2005). The TQM approach must be defined by a deliberate organisational transformation. In Lagrosen's (1999) qualitative Swedish public school study of schools which utilised TQM tools and practices he found that the adopted TQM initiatives had transformed the way the schools were managed, capturing the cooperation of each stakeholder in improving student performance. Such changes included the culture that defines the operation of such schools, something which is essential in the Saudi Arabian education system.

Duignan's (1986) review of prior research also concluded that "the centrality of school culture and climate are factors that influence effectiveness" and improvement was evidenced in the introduction of a new sense of commitment to reform. (p.69). The new school culture integrates the commitment of students, staff and parents in a "belief system which values academic achievement, creates high expectations for everybody's performance, demands order and discipline so that students can learn effectively, and encourages collaborative and collegial work and relationships" (Duignan, 1986, p.69). Strategic, collaborative and systematic transformation of the culture in which schools operate, the system of operations, and the engagement of the stakeholders will continue to identify and then implement positive change. This perspective is shared by the findings of Detert et al (2000) in their synthesising of organisational culture with adopted and bespoke values and beliefs underlying TQM management practice, the latter viewed as a broadly effective tool of reform (p.850).

The relationship between culture and the introduction of new behaviours and practices has not however been adequately explored in the literature because researchers, scholars and practitioners lacked a comprehensive framework to define and measure the

transformation of organisational cultures. The link between cultural change and the adoption of TQM is central to the process of changing the Saudi Arabian education towards improved outcomes as the nation develops response to cultural, economic and social realities in the 20th century (Abir, 1986; Toronto, 1992; Thomas, 1968; Lipsky, 1959; Al-Romi, 2001). This new political, economic and educational philosophy does not mean institutional and traditional barriers and resistance will cease to exist but the government demands for new education provision methods and standards, driven by its citizenry, will prevail, albeit slowly (Alyami 2014). The present study aimed not only to validate and contextualise the adoption of TQM theory in the improvement of contemporary Saudi Arabian secondary schools but will also identify areas of resistance to change.

The Tatweer Schools in Saudi Arabia examined by Alyami (2014) represent a new development of Saudi education, introduced as a new policy initiative focused on improving the quality of education in a global context, with relative autonomy in operation and innovation (Alyami, 2014, p.1424). Alyami's (2014) findings from focus groups and semi-structured interviews characterised the Tatweer Programmes as positive but yet to be effective in student outcome improvement. It does however show that the traditional framework of educational provision is capable of sustaining "a major shift of Saudi educational policy; moving from centralisation to decentralisation, from focusing on the individual to team learning; from being isolated schools to be open schools and having a partnership with society" (Alyami, 2014, p.1424)..

Alyami's (2014) view of education quality is from the perspective of a two-fold innovation namely school and student level, as illustrated in Figure 9.

Figure 9 Improvement of Quality Standards in School, from the Perspective of

Innovations

(Source: Alyami 2014, p. 1428)

Quality of Education

Depicted by:

Innovation

a) School Level

Innovation at the school level was reflected in:

- Technology
- Smart classes
- Implementation of projects
- Use of Intel program
- Innovative projects in learning
- Intensive training courses for the head teachers and teachers
- Teachers' progressive professional development
- Enhancing schools' internal capacity for autonomous operation for problem solving as per their mission and goals

b) Student Level

Innovation at the student level was reflected in:

- Numerous and assorted national and international awards
- Acquisition of academic research skills
- Self-confidence and exploration
- Self-reliance and independence
- Communication skills
- Active learning rather than being recipients of information
- Ability and enterprise to express informed opinion
- High level of academic debate in both ability and attainment
- Explorative academic trips and value-added projects

Adapted from
Alyami
(2014, p. 1428)

In practice, the changes identified by Alyami (2014) in the Saudi Arabian educational policy are indicative of a progressively dynamic transformation of public education.

Vision 2030 in Education

The Saudi Vision 2030 initiative was instituted as a development of the National Transformation Programme aimed at modernising every part of life, commerce, law, health and education, to ensure the place of the Kingdom as a driver of the world economy (NTP, 2020). This would attract foreign investment and promote domestic entrepreneurship through improvement of government services, making Saudi Arabia a global investment powerhouse no longer reliant on oil but its other primary resource, its people (Saudi Vision 2030, 2017). The principle of 'determination' is the calculated imposition of new ideas upon an existing socio-political framework, in Vision 2030 the enforcement of diversity of the national economy to tackle international standards (KSA, 2018).

This study of Total Quality Management principles in education broadly shares the aims of Vision 2030 to provide effective leadership, boost quality of services and reduce delays and bureaucracy to enhance results. The objective of the initiative is to build a thriving country in which all citizens can fulfil their capacities, hopes and ambitions, requiring a commitment from Saudi society and an educated and trained workforce to achieve world class government, economic and welfare services (Riyadh Chamber, 2018). The initiative provides improved opportunities for international and governmental-private business partnerships arising from its fortunate geographical location in the centre of the Middle East.

Transformative programmes for the reform of cabinet Ministries and their practices and efficiencies, including Education, are designed to provide a strategic focus for the aims of economic development and improvement of the lives and future of the citizens and their Kingdom. Implementation is led by a group of government executives who lead the change

and bring significant impact to cooperation in public investment, human capital programs, national infrastructure plans and strengthening the public sector through cooperation in strategic partnership programs with private organisations. Progress is monitored and measurement tools developed for assessing improvement

This is exemplified in the guidance of the Ministry of Education to schools and to improve results and student outcomes, especially by the time higher education produces qualified students who fulfil the requirements of the job market. Herein lies a need to consider how business quality and leadership practices may affect such education outcomes and an aim of this study (Arif, 2018). The starting point must be the training of professionals who provide the educational services, to facilitate and sustain a transition period in society, the preparation of a modern curriculum which focuses on rigorous standards in literacy and numeracy skills, and character development (Timperley, 2007). The MoE has stated seven aims to meet the requirements of Vision 2030 to implement change whilst preserving, so far as a modern, international type of curriculum accommodated, namely

    i.   To harmonise the outputs of the education system to meet market needs;

    ii.   To provide sufficient knowledge and skills for learners;

    iii.   To consolidate of Arabic and Islamic values within society;

    iv.   To prepare new advanced curricula;

    v.   To create a positive learning environment;

    vi.   To take into consideration disabled learners and ensure their dependence and integration into society

    vii.   To focus scholarship opportunities on areas that serve the national economy and prestigious discipline (MOE, 2019, Vision 2030)

These Vision 2030 aims for the education sector are supplemented by the researcher to include such TQM principles as leadership roles and management, strategic planning,

privatisation and investment in the education system. Saudi schools need to work hard, restructure and develop existing educational practices which improve suffering outcomes under the traditional framework, and this study will suggest that TQM principle adoption could provide a new and adaptable method for the provision of learning.

Conclusion

This chapter has critically reviewed the literature on the TQM approach towards school improvement, tracing its origins and history from business to schools, contextualising the foundations on which school improvement initiatives are anchored. In highlighting the application of TQM philosophy to the drive for the continuous improvement of contemporary schools Deming's Fourteen Key Principles for Management have proved a useful guide for analysis as a basis for incorporating the ideology of school culture into school improvement. This has been particularly pertinent to the thesis argument for a new focused leadership and restructure of practices in Saudi education institutions.

It is evident from the review that Saudi schools are gradually, though with various delays, adopting TQM theories as part of their strategic pursuit of improvement in outcomes, as indeed have several other nations seeking greater advancement in the global market. It is certainly the case that business TQM approaches are unsuited to the rarefied need of schools, but the underlying theories are adaptable as valuable tools of reform of out-dated, traditional practices. Evidence is available to Saudi school leaders that the tools can work where the institutional culture and practices are adapted to the same envisioned goal. TQM is simply a part of the improvement programme; the theory cannot operate in a vacuum. This is especially so when the organisation is not capable of being treated in the manner of a standardised production process for outcomes.

All schools are unique and must adapt their own versions of TQM principles. They also have different sites of resistance to change, given the diversity of stakeholder interests. Nevertheless it is difficult to conceive of an argument against continuous school improvement, enhanced outcomes, greater community input but the value of TQM philosophy in the achievement of these goals depends on evidence on suitability, effectiveness, and appropriateness of initiatives. The empirical basis of this study is to provide such evidence in its investigation of Saudi public school.

CHAPTER 3: RESEARCH METHODOLOGY

Introduction

This Chapter discusses the research methodology and presents a justification for its selection for this study to enable the answering of the research questions and fulfil the aims and objectives of this project. The Chapter will identify and examine traditional research paradigms used in broadly similar studies of a sociological and educational nature, seeking an "understanding the reality of the world and studying it" (Abdul Rehman and Alharthi 2016, p.51). It will explain the favouring of qualitative over quantitative methods of data collection in different aspects of the empirical research. The chapter will also consider research approaches and strategies establishing links between the selected approaches to sample selection for data and the pertinent ethical considerations. The chapter is divided into two sections, recognising the differentiation between

(i) *Methodology*, the rationale underpinning the philosophical strategy of the data collection, in this case the phenomenology of the "lived experience" of teacher, leaders and schools adopting TQM principles in education provision, essentially seeking [subjective] realities rather than a definitive truth (Crotty 1998), and

(ii) *Methods*, the scientific instruments utilised in the collection and analysis of data and knowledge.

The research philosophy and practice is developed to meet the data collection needs of the aims and objectives of the study.

Overview of Research Aim, Objectives, and Questions

The aim of the study is to examine how school leaders and teachers perceive methods of achievement of school improvement in terms of quality of education, enhancing outcomes

and satisfying the diverse stakeholders, particularly their understanding of TQM-based quality improvement. Its broad objective is to contribute to the development of the state education sector in Saudi Arabia by investigation and evaluating how a quality management approach that may help education leaders to develop and implement quality improvement processes adapted from international business principles to Saudi schools.

Review of Objectives

The study will therefore

i.   explore the knowledge and understanding of a TQM approach among school leaders, and teachers in Saudi schools
ii. investigate how implementing adapted TQM principles in the case study institutions effect improvement, cultural and leadership change and academic, personal and societal outcomes in the Saudi context
iii. examine obstacles to the adoption of adapted TQM principles and practices and
iv. evaluate how principals' leadership styles in Saudi Arabian school contexts have influenced their interactions with TQM practices.

Review of Research Questions

The research questions directly determine and shape the selection of research methodology and methods of data collection. They examine the extent of the understanding amongst educational professionals in the selected schools of TQM principles and how they perceive, and they may promote school improvement in their contexts. Their input and opinions in the qualitative research facilitate understanding of how transformational and distributed leadership styles, where they are adopted, have influenced and interacted with TQM practices. Consideration of the influence of the objectives and questions on research methodology enables an assessment of the including research paradigm, design strategy, and sampling, broadly following Hays (2002) plan below.

Figure 10: Hays (2002) Plan

Ontology	Epistemology	Theoretical perspective	Methodology	Methods	Sources
What is reality?	What and how can I know reality/ knowledge?	What approach can we use to get knowledge?	What procedure can we use to acquire knowledge?	What tools can we use to acquire knowledge?	What data can we collect?

Adapted from Hay (2002) pg. 64 and Crotty (1998)
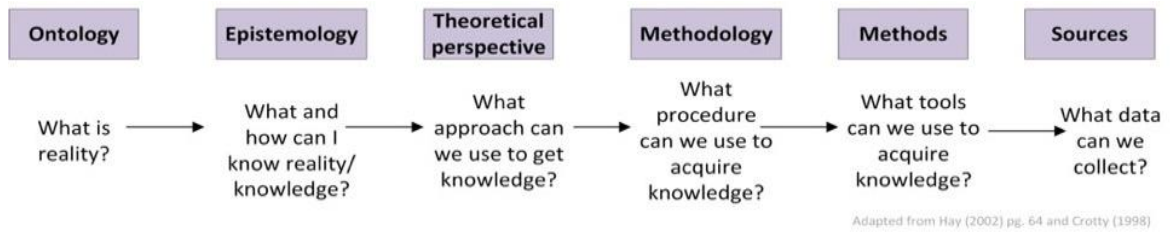
Section 1: Methodological Philosophical and Theoretical Underpinnings of the Research

Research approaches are generally defined in categories of (a) ontology, (b) epistemology, (c) methodology, and (d) axiology (Lincoln and Guba 2013). Ontology means the nature of reality under investigation. Epistemology is about the relationship between knowledge and the researcher (Lincoln and Guba 2013). In methodology, the researcher selects the most apposite strategy to acquire knowledge about the area of interest and in axiology, the most valuable, significant, and relevant knowledge to select from all available knowledge (Lincoln and Guba 2013). Munhall (2012) proposed a fifth question/assumption critical in social research, namely the rhetorical question representing appropriateness of the language and voice used when reporting the findings generated by a study.

In the reflection on a broad composite paradigm for this study, Ling and Ling's (2019, p.5) definition of the term of approach is adopted, "a set of concepts that reflect a world view underpinning the particular subject", in this case, leadership and teacher support for the application of adjusted TQM principles to the school environment. The axiology elemental to the paradigm, the value attributed to the nature of the understanding gained from the study, lies in the ability to maintain credibility through researcher objectivity in evaluating the meaning of the evidence gathered (Kasi, 2009, p.95). This is inherent in the epistemological reality of the knowledge and perceptions of the participants in this research.

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Epistemology

This factor in the decision-making process on paradigm selection is defined as "the characteristics, the principles, the assumptions that guide the process of knowing …" (*Gialdino, 2009*, p.4). It is the manner and basis in which the researcher accumulates knowledge of the outcomes sought in the study, "what we can know about the world and how we can know it", in this context how TQM principles may be adopted and adapted in the Saudi educational framework (Marsh and Furlong, 2018, p.18). It relates the nature of knowledge and beliefs to how it is collected ensuring the accuracy of the "set of assumptions, concepts, values, and practices that constitute a way of viewing reality" (McGregor and Murnane, 2010, p.421).

Education is not a fixed process and must develop with societal, technological and political reform and change, nor is it restricted to institutions and teacher transmission (Ismail, et al., 2016). Thus there can be no definitive truth ascertainable from the knowledge and data gleaned from research on the sociological subject. In the epistemological approach of this study it is borne in mind that the relationship between the acquisition of reliable knowledge on the effectiveness of TQM in Saudi classrooms has to be discriminated from inaccurate perceptions of those resistant to its principles (Bostrom, 2018). This will be discussed in associated contexts of ontology and philosophical theories of positivism, interpretivism and realism in order to aid reflection on the methods of research appropriate to the conduct of the knowledge and data collection process.

Ontology

The definition of ontology in educational research is profoundly elusive in the search of a theoretical foundation for study, Karpov (2019) suggesting that the principle of social effectiveness of teaching programmes excludes a metaphysical, philosophical ontological perspective and "a practical theory can offer only speculative and preliminary ideas of

education" (Karpov, 2019 : Guarino et al., 2009). It is the study of "what exists", not so much of an obvious material nature, but the effect of intangible, abstract principles (Effingham, 2013). The Oxford dictionary definition is adopted as most apposite to a description which meet the aim and objectives of this study, namely a "set of concepts and categories in a subject area or domain that shows their properties and the relations between them." This will facilitate a consideration of the philosophical approaches to the subject.

Philosophical Approaches to the Epistemology and Ontology

The positivist theory of knowledge accumulation is broadly geared to seeking trends in behaviour from quantitative data which correlate with and explain the subject of study which arguably "lacks the capacity for self-reflection and cultural production" required in this research (Prasad, 2017, p.2). Positivists study reality using objective statistical methods that are independent from the researcher's knowledge and attitude, distinguishing between facts and values (O'Donoghue et al., 2017). Parahoo (2014) suggests that ontologically, positivism views reality as single, objective and independent of human observation, discernible and tangible. The researcher seeks a cause-effect relationship between the basis of examination and the subject examined (Sousa, 2010). This is more appropriate to a study of the natural sciences, where" there exists a single, objective reality or 'truth 'which can be discovered by scientific investigation" (Gilbert and Stoneman, 2015, p.33).

It is difficult to conceive how this approach can produce insightful data on a topic which seeks to understand personal political and social perceptions of the introduction of western TQM business principles into the culture of Middle Eastern schools. The approach in this study is more akin to a post-modern outlook, viewing the social world "fully socially constructed by humankind" (Sousa, 2010, p.456). In the context of educational provision

and its fundamental change and improvement, much of the data is subjective, based on views and perspectives of those leaders and stakeholders who participate in the study. It can be suggested that the adoption of leadership and quality change in schools is aimed at socially reconstructing the education provision therein. There is little scope for objective findings and so consideration is given to the sibling philosophical theory of interpretivism.

Interpretivism

Bryman (2012) argues that there can be no definitive single real truth in sociological study where the data framework is founded on diverse social outlooks and perspectives, prone to realignment and shift in a changing society. Meanings and understandings of participant providing the information are fluid and sensed rather than objective. In the ontological context, interpretivist researchers will view reality as constructed by human interaction where reality is a process of social construction (Scott and Lewis, 2017). That individual reality is also fluid and subject to change with contextual development (Killam, 2013, p16). The researcher assumes that reality is socially constructed by language, consciousness, shared meanings, and instruments (Myers, 2008). This is a context which accurately reflects school-life, relative in time and culture.

Context plays a pivotal role in interpretivist research where, epistemologically, reality is subjective in the sense that knowledge is constructed by the researcher and participants, whose attitudes and perspectives shape the research findings in the unique environment of study (Hibbert and van der Walt, 2014). Social phenomena, in this case the attitudes of Saudi schools, political leadership and teachers and principals, are best understood "through the eyes of the participants rather than the researcher" (Cohen et al., 2018, p.19). Nevertheless such data is evaluated from the critically realist perspective for the reason that it is not merely enough for this research to explain the adoption and benefits of TQM principles in education but to change the framework of educational provision (Patton, 2002).

The methods adopted in this approach for data collection and analysis are not, therefore, based on numbers or statistics but upon opinions and perspectives from, for example, questionnaires interviews and then upon observations based on thematic analysis (Swanwick et al., 2019). The research and its interpretation is value bound and that the researcher cannot be separated from what is being studied (Li, 2015). This poses questions of accuracy and veracity of the findings and therefore the methods of analysis herein seek to achieve a dispassionate assessment approach to the data interpretation.

The approach of the researcher to this project is to construct knowledge from the contributions, textual data and experience of the participants, shaped by the researcher's perspectives and experience within the specific context of schools in Saudi Arabia (Scott and Lewis, 2017). The interpretivist philosophy adopted is considered apposite to this approach, coupled with a critically realist view where the researcher acknowledges the embedded cultural and religious bias against change in the Saudi education framework (Saunders et al., 2009). The most appropriate considered and reflected upon direction of data gathering, evaluation and search for understanding of perceptions of the value of TQM principles to the restructure of Saudi school education provision in this research is therefore (i) interpretivist, the gaining and interpreting of knowledge of how the study participants see the world in which they teach and how it can be changed and (ii) critically realist, acknowledging the strength of contextual factors. This requires the research approach and strategy to be reflected upon which is apposite to the fulfilment of these philosophies.

Research approach

Three traditional approaches to data collection are used in educational research studies, namely

    i.   Quantitative, the collection of objective numerical information, the analysis of which

           is generally by statistical calculation seeking a definite answer or conclusion,

    ii.   Qualitative, non-numerical data, for example opinions and feedback, and

    iii.   Mixed methods, where different parts of the empirical study require different

           approaches (Johnson and Christensen (2017, p.33)

In short, Houser, (2015, p.102) describes quantitative research as a positivist paradigm investigation of objective data, qualitative being the collection of "value laden" information. The latter is subject to interpretation without a definitive cause-effect result and mixed methods, seeking a coalescence or statistical correlation between different forms of data, usually numerical and opinion-based to seek limitation of bias (Newman and Benz 1998). This is not the information sought in this study. In the evaluation of opinions, personal, political and pedagogical, the quantitative approach using numerical representations and data to assess the effect of the TQM phenomenon will not serve the purpose of the research (Rasinger, 2013). The aim cannot be to ensure replication of the findings in other studies because personal perceptions and context vary considerably across different institutions. This section has therefore guided reflection strongly toward the qualitative process of data collection, given the nature of the information to be gained from the participants and this, thus, guides the choice of methods used in the empirical study.

Qualitative Research

This approach to data gathering and assessment is more conducive to the interpretivist philosophy, gathering information in the form of participant perceptions through interviews and observations (Harding et al., 2013). The range of information collected is in the form of images and impressions to understand the extent of the knowledge, application and effectiveness of TQM principles in schools from stakeholders. This does not require the establishment of a conclusive truth following evaluation, or indeed a hypothesis guide to the

direction of the enquiry (Guest et al., 2013, p.3). The data will aid how much school leaders, teachers and other stakeholders understand the concept of TQM, their training in the practice of its principles, contribution to improvement of student outcomes and the change in leadership style in terms of transformation and distribution of authority in Saudi schools.

Figure 11 Research Philosophy
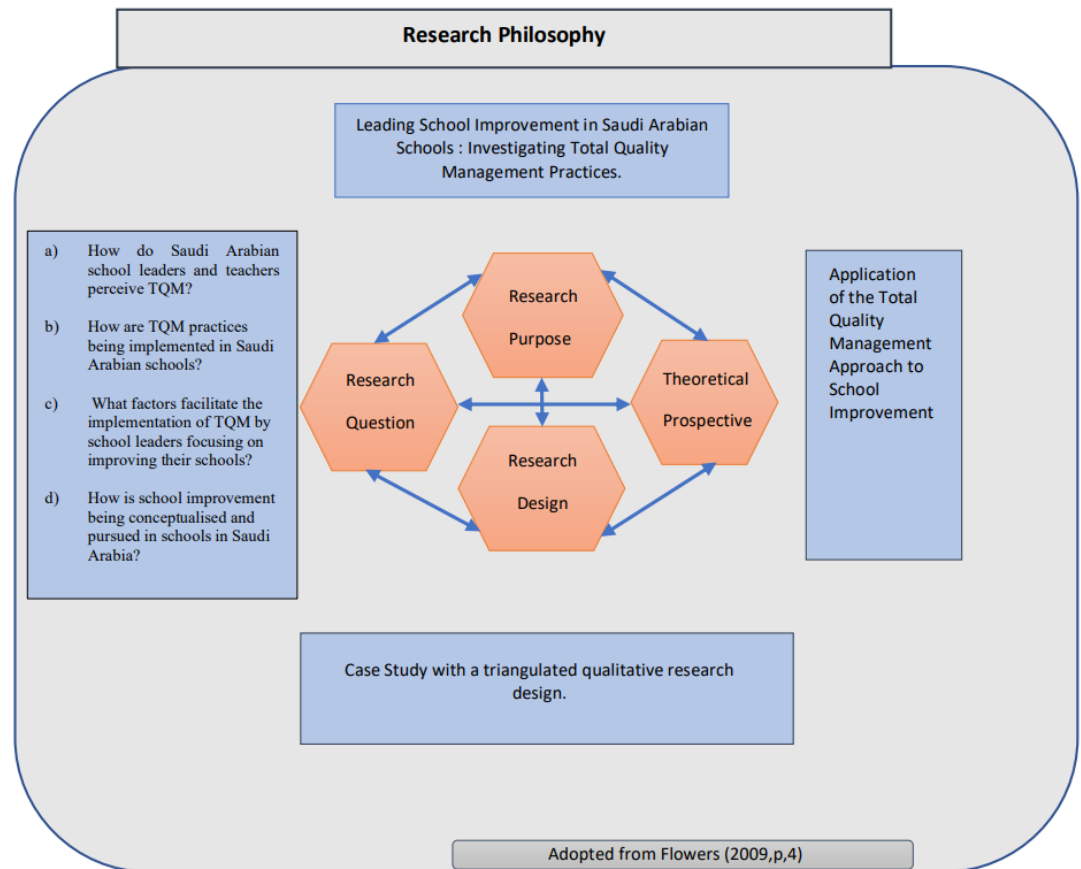
Scientific Method of Research and Analysis

In the interpretive nature of evaluating the data and information from qualitative research it is imperative that the researcher seeks limitation, if elimination is not possible, of personal bias or the seeking of findings which fit the desired purpose of the study. Hence the exercise of critical analysis will enhance credibility of the evaluation of "explanations of educational activities and behaviours" (Scott, 2002, p.83).

This has been undertaken and reflected upon in the examination of research paradigms and philosophies, and will be further addressed in the resultant choice of methods for data gathering. Principles of validity and credibility of results analysis have been a priority in this reflection process as the researcher has become more conscious of the need to avoid personal

bias in information gathering and evaluation (Collier, 1994, p.17). Nevertheless the nature of the study is not predicated upon a hypothesis which is to be proved or disproved and thus truth is interpreted depending on the context in which the data is gathered.

Research strategy

The study employed a case study approach that was selected and implemented based on the purpose, aim, and objectiveness of the research. The study did not seek to investigate school improvement in general but within a specific context of TQM practices and the Saudi Arabian jurisdiction. The case study process is utilised as a reliable and suitable approach in this context for the gathering of perceptions and opinions, a naturalistic "investigation into a specific instance or phenomenon in its real-life context" (Cohen et al., 2018, p.292). The case study primarily focuses on the characteristics of an individual unit: "a child, a clique, a class, a school, or a community" (Cohen et al., 2018, p.375).

Time, resources and a pragmatic approach requires the examination of selected teachers and principals in Saudi Arabian schools (a cohort design), that have either implemented or delayed a TQM approach, a "population-based nested case-control study" (Lin et al., 2015, p.503). Participant perceptions of leadership and quality were sought to ascertain how education improvement was being achieved in their schools. A full explanation of the method by which the participants were selected is provided in Section 2: Methods

It is anticipated that the case study findings will have broader application beyond their specific context, producing knowledge about individual units of which the group is made up, which can be generalisable to the wider Saudi national education framework.

Cohen et al (2018, p.380-81) citing Robson (2002) and Ruddin (2006) among others, make a strong argument in favour of the analytical generalizability of case studies, in which there is a logical rather than a statistical connection between the part and the whole, contributing

to the development of theories against which individual cases can then be empirically tested.

Recent policy changes have reflected the will of the government to apply TQM to diverse public service sectors, including education. Its application is reflected in the focus of this study on the improvement of school performance as an indicator of school effectiveness, as proposed by Alruwaili (2013, p.26). As such, using a TQM approach, teachers, students, school leaders, government agencies, and ministerial supervisors, all collaborate to define the input that can be managed to yield the most effective output and outcome in student performance at that school (Kenway, 1994, p.73).

In the information gathering process of the implementation of case study research, Bassey (1999, p.65) asserts that the study must collect "sufficient data" to:

    a) Explore the significant features of a case;

    b) Develop plausible interpretations of case-specific findings;

    c) Optimise findings for trustworthiness of how findings are interpreted;

    d) Justify interpretations with rigid and well -constructed arguments;

    e) Integrate a critical review of relevant literature as the convincing background upon which such interpretations are made;

    f) Provide an empirical framework for subsequent researchers to validate or challenge any findings made from the case study, or to justify alternative arguments;

In case studies the researcher chooses an area of investigation focused on a target population and devotes the research process to gaining detailed qualitative data about that subject without the need for quantified comparisons with other potential subjects (Yin 2003, p.31).

Conclusion

This section has provided a description of the researcher's reflection process in addressing the data gathering needs of this study to meet the aims, objectives and research questions. The epistemological theory of the nature of knowledge and the ontology of its existence and relationship to the context of study is founded in this research upon the critical interpretation

of data mined from the subjective perceptions, images and opinions of school leaders and teachers on the application of TQM principles in the Saudi educational setting. There is no objective truth to be ascertained from the evaluation of diverse personal information. The intention is to find how education professionals view the institutional and student outcomes of a new leadership and quality enhancement structure. It is with this in mind that the methods of data gathering, the tools, are chosen and justified.

Section 2: Methods

Population, Sampling Procedure and Sample

The empirical study process is divided into three procedures focusing on the introduction of TQM principles into Saudi Public Schools, and therefore the methods chosen on the basis of the methodological philosophies outlined in the last section. Reflection on the diversity of data gathering methods has further focused on meeting the particulars of the aim and objectives discussed in Chapter 1. The main part of the empirical research is based in the Makkah area of Saudi Arabia. Logistics, expense restraints and time constraints have demanded that such limitations be applied but this does not undermine the veracity of the findings for reasons which are apparent in the forthcoming discussion.

Deming's Principles of TQM have been discussed and form a basis for what is considered to be adaptable to the school setting. These are, for the purposes of recall in the research process, summarised as follows:

    i.   constancy of purpose for improvement following adaption of a new philosophy of leadership and management,

    ii.   emphasis on achievement of quality in service and outcomes for all stakeholders, improving performance constantly through planning and collaboration,

        a.   driving out fear and

        b.   breaking down staff barriers,

   c. removing targets and slogans

iii. institutional training on the job, enhancing opportunities for self-improvement and rewards for quality work, will all involved in accomplishing the transformation.

The Saudi Arabian public education system is structured into three levels - primary, intermediate, and secondary - administered by the Ministry of Education (Al-Romi, 2001, p.20). They are funded, governed and monitored by the Ministry of Education based on national education policies from the work force to curriculum directives. The focus in this study is on public education in Saudi Arabia exclusively providing a case study of school education. The investigation will then focus on examination of the adoption of TQM practices in pursuit of school improvement in both the administration and leadership ultimately to define school effectiveness.

The Study Process

After considerable reflection, the researcher decided that the approach to the study required not simply preparation of the methods of empirical research, but in nation such as Saudi Arabia, which is not known for the transparency of its government operations, advice should be sought from those who had achieved principal status in schools. This assisted in the development of the strategic approach toward the primary empirical study.

1. The Pilot Study

As a preparatory measure to the main empirical study and a requisite stage prior to the academic approval of the project in the post-graduate program, the researcher conducted a pilot study. It is common practice for researchers to conduct a pilot study to enable parameters to be set for the principal investigation. Arain et al. (2010, p.61) defined a pilot study as "a 'small study for helping to design a further confirmatory study," and useful for a

researcher for "various purposes such as testing study procedures, validity of tools, estimation of the recruitment rate, and estimation of parameters such as the variance of the outcome variable to calculate sample size". Morin (2013) also reviewed the "value of a pilot study", concluding that they are valuable when testing research questions, planning the implementation process of a study, estimating the likelihood of fulfilling the study's objectives and (importantly for this discussion), determining whether the study may uncover new knowledge.

Given the lack of academic enquiry into the Saudi education framework, particularly the use of TQM principles of quality and leadership this author believed it prudent to seek advice and guidance from former senior teachers and school principals to broaden his own knowledge of the Saudi system. Frazer et al (2018, p.261) describe the benefit of a pilot study as "a risk mitigation strategy to reduce the chance of failure in a larger project", the results of which are not commonly reported or used in academic studies. This researcher takes the view that the pilot explanation is indicative of the depth of the examination into a subject which has not been adequately examined in Saudi schools. Little emphasis is placed on the results but the process by which the main empirical data gathering is conducted. In pursuit of the aim, objectives and research questions of the study, and employing the qualitative methodology, the pilot enquiry was implemented as a reflection of the study strategy using unstructured face-to-face interviews in the UK.

Derived from the value and role of pilot studies as proposed by Arain et al. (2010), Morin (2013) above, the pilot study was conducted to:

iv.   discuss and reflect upon the data collection process for implementation of the main study;

v.   test the data collection and analysis procedure;

vi.   examine the validity and reliability of data collection tools;

vii. evaluate the feasibility of meeting the research questions posed by the study;

viii. determine whether the study would contribute new knowledge.

Permission was sought from the Administration of Saudi Embassy in London and the (Ministry of Education in Saudi) in 2017 to conduct a field study based on the workplace and on procedures which been approved by the thesis supervisor. There was some delay in the researcher finding the time to travel and dedicate to the study for personal reasons and a letter was received from the Saudi Embassy in London confirming the research department's permission to conduct the fieldwork. The field studies were conducted during the year 2017 and the researcher adopted a survey study method. The survey study incorporated the structured questionnaire and interview aspects of the research process.

The pilot study was conducted in two phases, the first phase in the UK, where the researcher is pursuing postgraduate qualifications, for logistical convenience, the fact that the target participants expressed consent to involvement and their knowledge and expertise of the Saudi education system was considered relatively unrivalled. These eight former senior teachers and principals, holders of 8 Masters and PhD level students in the UK to continue their studies, were:

i. Saudi Arabian 'students' pursuing postgraduate studies in the UK;
ii. Born and initially trained in Saudi Arabia;
iii. Had at least 2 years' experience as teachers employed by the Saudi Arabian Ministry of Education prior to their studies in the UK;
iv. Willing to participate in the study without any reward of compensation.

Given the nature of this research plan, the sample was recruited through personal requests, referrals from friends, and a brief announcement at a monthly meeting where university students from Saudi Arabia meet, interact and socialise in the UK and the request for participation was met with some enthusiasm. The research plan focused on professionals currently facilitating public education in Saudi Arabia in schools adopting the TQM

approach or where such principles play a significant role in leadership and management. The pilot study involved discussion with Saudi educational professionals with school principal-ship experience currently studying in the UK to develop ideas and aid reflection on the direction and process of the study. These teachers and lecturers were from diverse states in the KSA and their input, relatively informal, enabled the researcher to reflect on methods and questions.

This part of the research process gave a general over view about the problems which would be faced in dealing with the Saudi authorities, based on experience of the respondents and help to choose the suitable data collection tools that help to achieve better understanding of the educational framework. The qualitative unstructured interviews conducted with the participants individually in their various UK universities, based on a general set of questions as a guide to eliciting information on the factors pertinent to the research plan. This initiative proved invaluable in assisting the understanding of the researcher on the Saudi school education practices and further gave guidance on the forms of questions which should be asked in the study from those with greater knowledge of the pedagogical framework.

The questions were directed at ascertaining the perspectives of experienced educators and researchers in assessing the suitability of interview schedule and determining what, if any, of the sections need refining in order to produce a stronger data gathering procedure. They were generated from consideration and reflection upon literature and studies of the broad principles of TQM in business and public services, identifying those which were most appropriate to the Saudi education framework. The author, a teacher in secondary education in the Makkah region of the Kingdom, had experienced some of the early practice of the educational sectors in Saudi schools and was aware of difficulties and challenges to be addressed and researched. Documents and reports were provided by the Ministry of Education in relation to the policies of introduction of what can be termed TQM practices in

school and workshops attended on topic under investigation to facilitate framing of the research questions.

This relatively informal part of the research methods helped clarify challenges or resistances that the researcher may face during data collection as well as determining whether the method to be employed was suited to answering the research questions. As a constructive exercise in preparation for the challenges ahead it helped to devise in advance suitable approaches, methods and questions for qualitative response. It was an invaluable part of the honing or sharpening of the questionnaire and interview tactics and questions although and the findings are reflected in the method development rather than their results.

The second phase of the pilot study was conducted by means of a survey. A questionnaire was administered to a representative sample of principals from all Directorates of Education in Saudi Arabia. This aimed to give all school leaders an equal opportunity to participate in the study and gather feedback, perspectives and views about the application of TQM in Saudi Arabian schools.

The surveys were sent to the Directorates of Education in the Central, Eastern, Western Northern and Southern region of the diverse Saudi Arabian Kingdom was sought to facilitate the development of the strategic methods and plans for the main research. Those directorates, whose schools were accessed with the assistance of the local authorities, are Riyadh, Eastern Province, Makkah reign Almadeenah Almonawarah, Tabuk, Alqaseem, Hail, Northern Boarders, Aljouf, Albahah , Aseer region, Najraan and Jizan. It has been noted that Frazer et al (2018) have suggested the results of a pilot study do not normally form part of research analysis and findings. In this study it has considerable value in developing a question and data collection method structure which helped to consider the application of the findings from the Makkah schools across the nation

All the feedback from both phases of the pilot study highlighted the importance and need for the field study, because information about the use of TQM in schools in Saudi Arabia was missing and there was confusion about its use for school improvement. This suggested that there was an overall lack of information about TQM practices.

2. Empirical Research Study

The first element of the main empirical research study comprised letters sent to 147 secondary schools in Makkah area seeking their provisional agreement to participate in the study, and then sending the teachers' questionnaire to the teachers in a sample of ten schools involved in the more detailed study, through the administrative assistant at the Directorate of education in Makkah region. These questionnaires complemented the main interview component of the study by creating a means of checking the perceptions of teachers with regard to the those of the head teachers. These scoping questionnaires were drafted, reflected upon and refined from the pilot discussions with experienced Saudi teachers and principals studying in the UK and the feedback from the survey questionnaires which have been sent to all directorates of Education in Saudi Arabia, these were forwarded to the schools in each Directorate with instructions to participants to

i.   explain their status in the schools,
ii. note how long they took to finish the questionnaire in a single sitting,
iii. answer all questions to the best of their knowledge, indicating areas of confusion or ambiguity.

All 147 schools in Makkah region were invited to participate in the study and the final choice of ten schools was randomly selected through the use of DOE computer system. Such a relatively limited choice of schools for investigation does not limit the veracity of the data or findings therefrom on the perceptions and comparison of quality and leadership improvement.

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The purpose of piloting the questionnaire was to determine the length of time taken for completion by respondents and to ascertain any faults in the clarity of the enquiries which would compromise the veracity of the replies (Williams, 2003). This was particularly pertinent in ascertaining knowledge and perspectives from teachers of TQM and the use of its adapted principles in schools, whether ostensibly adopted in their institutions or not. In order to motivate cooperation the questionnaire had to be 'attractive' and clear (Bee et al 2016). Respondents were welcomed to comment on points which lacked clarity. Any enquiries which yielded unusable data could also be removed with the intention of arriving at a better understanding of participants' opinions and their feelings about the adoption of TQM in Saudi schools.

The main focus of the empirical research is based on 10 case studies of schools in the in Makkah Educational region which located in the western region in Saudi Arabia. It is bordered to the south and west by Bahra Governorate and Al Jumum Governorate, and to the east by Taif Governorate, while to the north it is bordered by Al Jumum Governorate. The population of the governorate, according to the estimates of the Population and Housing Census of 2011, is about 1578722 people, which represents about 22.83% of the population of the region, and as such it is considered the second largest governorate in terms of population at the level of the western region.

 The Saudi schools in all regions - central, southern, northern eastern and western - have the same contexts, because the system in Saudi Arabia is centralised and all schools in the country have to adopt the instructions which come from the MOE. The secondary schools in Makkah region have the same policy , standardisation, resources, curriculums and school organisational system as all the other schools in every region in the kingdom. The role of the DOE in each region is to ensure that all schools have applied the government's instructions.

School leaders usually did not practice autonomy in their schools, but applied the MOE's instructions (Alruwaili, 2013)

Yin (2014, p.16) describes a case study as an "an empirical inquiry that investigates a contemporary phenomenon (the 'case') in depth and within its real-world context". It is a method for researchers to evaluate the usefulness and relevance of the subject examined in its study context. Case studies holistically "explore and investigate contemporary real-life phenomenon through detailed contextual analysis of a limited number of events or conditions, and their relationships" (Zainal, 2007, p.2).

It is a 'naturalist' examination, predicated on what actually happens in the schools with limited generalisability of findings (Flick, 1998). As a qualitative research method, this was a more pertinent choice for the nature of this investigation, rather than a utilitarian approach which would require a researcher "to identify the particular benefits (a study) wishes to maximise, to identify a suitable population for maximisation, to specify what is to count as maximisation, and to fully understand the consequences of our actions" (Cohen, et al., 2018, p.70). This has a rigidity which the researcher considered, following discussions with Saudi professionals studying in the UK, would not have produced sufficient cooperation for valuable insight in the Kingdom.

Cohen et al. (2018, p.292) characterise a case study as an "investigation into a specific instance or phenomenon in its real-life context" aimed at optimising the generalisability of case study findings. Flick (1998) argues that when choosing a study approach, and thus the target population, a researcher should strike a balance "between having research questions that are so broad that they do not steer the research in any particular direction, and so narrow that they block new avenues of inquiry" (p.150).

Three factors were considered of importance in the design method of this study, and so the approach and choices were based on

(i)   enabling the most effective data collection for the education-based investigation, with an accurate, reliable, and reflective understanding of TQM principles in school improvement,

(ii)   provide in-depth reflective qualitative descriptions of findings from participant contributions and

(iii)   ensure that the selected participants, principals and teachers, were the most representative stakeholders of school improvement.

This approach is explained by Cohen et al (2018) who asserts that "the quality of a piece of research stands or falls not only by the appropriateness of methodology and instrumentation but also by the suitability of the sampling strategy that has been adopted" in education research (Cohen et al., 2018, p.202; Morrison, 1993, p.112–117). The sampling of the participant population was influenced by the pilot discussions in the UK and the pilot study of schools, chosen randomly from the respondents to the questionnaire process. It was then necessary to reflect how valid and pertinent data could be mined from principals and teachers in the case study schools as the best representative stakeholders of school leadership involved in TQM based teaching and learning provision.

The study also explored the challenges and barriers to school improvement within the same Saudi Arabian context, reliably appraising the context that can be generalised for education leaders and teachers offering public education throughout the country. It would not be feasible or reliable to collect data from the entire population of Saudi Arabian principals and teachers due to time, cost and logistical constraints and so the data veracity is based on the applications of the method strategy. It does however depend on the cooperation of the schools, their principals and teachers, and equal opportunity was given to all schools in Makkah region to be included in the random sample procedure. 10 principals were selected

for interview and then ten teachers from each school were targeted with questionnaires. The following section provides a brief contextual background of Saudi schools.

Sampling Procedure

For feasibility and practicality, a study, particularly a case study, can rarely conduct a survey of all participants in a target population. A scientific enquiry simply selects some representatives of the target population, whose findings can then be generalised for the larger population (Cohen et al., 2018). This project therefore employed a two stage sampling procedure to recruit teachers and principals selected from the Saudi Arabian education system, who provide an in-depth picture of the area of interest, namely TQM principles in school practices (Crotty, 1998; Munhall, 2012). The sample of participants was chosen, with the assistance of the Directorate responsible for the Makkah region as representative of the broader professional body. The overall aim when recruiting the sample therefore was:

(i) Strategically selecting information-rich sources of data (Creswell, 2014);

(ii) Selecting participants who best represented the nature of the study (Patton, 2002);

(iii) Recruiting subjects who were key human actors for their conscious understanding of the subject under study;

(iv) Gaining the individual perspective of key participants, to gain an in-depth picture of the phenomenon under study (Munhall, 2012).

The study sought to determine accurately whether in practice the teachers and principals actively pursue increased improvement. It therefore sought to collect data from Saudi Arabian schools in such a way that the interaction between the schools and the researcher, as well as the participants and the research process, did not impose significant bias on the study's findings. Flick (1998) proposed a novel understanding of, and recommendations for, conducting a reliable empirical study within education institutions. They both understood

the potential of academic institutions to affect negatively the accuracy and reliability of research findings. The study largely relied on Flick's (1998) work to anticipate potential ways in which carrying out research in Saudi Arabian schools where participants work either as principals or teachers may impact on the data collection process. As it emerged, three of the five considerations proposed by Flick (1998) helped shape the sampling procedure employed.

Particular problems include that sampled teachers may act defensively and only present information that defends their image and job profile, even when such information is deliberately inaccurate. According to Flick (1998), conducting a research study represents "an intrusion and intervention into a social system, and so disrupts the system to be studied such that the system reacts, often defensively" (p. 57). The study therefore had to adopt a data collection process that did not incite the principals and teachers in the selected schools to adopt a defensive mode. To exemplify, the study primarily defined the participants as principals and teachers from schools that were either early adopters of TQM practices or later responders.

A further variable which would impact on cooperation and thus findings is that the participants sampled may reflect only their ideological, fantasised, and mentally acceptable realities that do not translate into their actual practices within the school system. This can create a 'mutual opacity' between "the social system under study and the research project, which is not reduced by information exchange between the system under study and the researcher" (Flick (1998, p.57). Essentially, responses may be accurate and unembellished but may be coloured by the ideological perceptions of the teachers and principals and therefore not reflect true instances of school improvement. Systems and institutions often have "immune reactions" to the ideology of participants and so data in such instances can

be inaccurately generalised as having originated from the concept of school improvement while it only reflects the ideology of current principals and teachers (Flick 1998, p.57).

During informal discussions in the pilot phase of the study, a teacher made mention that participants may have had an inclination to divert contributions into perceptions of the personalities of the principals and how the school is run rather than reflect on the school improvement process. This is somewhat consistent with the observations of Flick (1998) that emphasis should be placed on the particular aims of the investigation, a mutual understanding amongst participants that the purpose of this study was the examination of the changes in school operation effected by TQM principles rather than questioning personalities. It would certainly be enlightening to consider reflections on personalities, but this researcher took the view that such 'data' may be considered 'gossip' and did not form a part of the study. As such, the sampling procedure helped the study to focus primarily on the school improvement process in which the sampled respondents are only participants in the process, without shaping the evaluation with the personalities, character traits and profiles of the principals and teachers. Such improvement of the findings will be feasible for subsequent research studies.

Ultimately, having considered all the foregoing factors, the researcher followed the suggestion of Cohen et al (2018) that since "questions of sampling arise directly out of the issue of defining the population on which the research will focus," the researcher "must take sampling decisions early in the overall planning of a piece of research" (p.202). As such, while determining the most appropriate sampling procedure, the researcher considered several specific factors, namely:

a)   Retaining the purpose of the study as the process of school improvement rather than the unique personalities of the sampled participants (Flick 1998, p.57);

b) Identifying participants in schools whose policy and operational tendencies are evidence of school improvement practices, regardless of what the sampled participants felt or thought (Flick 1998, p.57);

c) The study selected teachers and principals who had at least 5 years' experience in their current position at the time of selection, and were thus amply knowledgeable about the school improvement process (Arsenault and Anderson 1998, p.121).

d) The expense of conducting the study (Cohen et al., 2018);

e) The amount of time necessary for conducting the study (Cohen et al., 2018);

f) The accessibility of sampled participants (Cohen et al., 2018).

These factors were applied alongside a computerized random probability drawing from the sample of principals and teachers in Makkah region, Saudi Arabia . These factors are an academically acceptable sampling strategy selected for case studies to meet a predefined qualification status of potential respondents Cohen et al (2018, p.202).The study generated data from a selected sample that meets these factors where schools, more than principals and teachers, mostly determine the selection procedure. The study recruited:

(i) Ten principals in total from a localized sample of Schools in the Makkah region,

(ii) In addition, each school was further represented by 10 teachers who competed separate questionnaires.

Consequently, there was a total of 110 participants in the study sample (teachers and principals combined).

Sample Selection Criteria

Drawing from the literature on qualitative methodology and utilizing documentation from the Saudi MoE, this research used the following criteria to further identify potential participants:

a) Available for the data collection process at a location and time most convenient to them;

b) A teacher or a principal in a single public secondary school in Saudi Arabia and had to have been in their current position for at least 5 years at the time of selection;

c) A principal or a teacher in a school that was either an early TQM adopter or a later responder to TQM practices;

d) Willing to participate in the research process for data collection without coercion or reward, and with absolute anonymity;

e) Without any personal or official relation with the researcher either at present or previously, and whose interaction with the researcher did not constitute a conflict of interests or bias;

f) For the convenience and affordability of the research process, participants had to be principals or teachers practicing in schools of Saudi Arabia.

Access to and Consent of Participants

The next task for the researcher was to gain permission to access schools, principals and teachers. When recruiting the sample of schools revisions to the sample occurred based on participants' choices. In education research, "gaining access not only is a practical matter but also provides insights into the social organisation of the setting" (Hammersley and Atkinson, 1983, p.54). Advantage was taken by this author of having been born and raised in Saudi Arabia, and having received a standard education there before seeking progressive higher education outside the country. This facilitated relationship and trust building with the participant schools, particularly when the purpose of the study was explained.

The researcher had already made progressive contact with several friends and acquaintances in the ministry, particularly teachers, and a principal presently working in Saudi Arabian secondary schools.

The researcher secured the contact details of the principals in the randomly generated list of schools meeting the selection criteria, and made an introductory call, quoting the identity of

the reference from whom he acquired the contact details, to build trust and reliability. That call focused on four precise factors, namely:

a) Introduction to the researcher's interest in conducting a scholarly study;

b) Overview of the proposed research undertaking, namely purpose, aim, and objectives;

c) A prompt and request for participation, as a conclusion to having identified the target population and proposed sample of participants;

d) Clarification and assurance of absolute anonymity, human rights, and protection from any possible harm or jeopardy.

If any of the contacted principals decided not to participate in the study, an alternative school within the pre-selected pool was contacted through the DOE to fill the gap. The researcher maintained an active engagement with the principals, both online and via several direct calls, to maintain a sense of trust, vital in the context of the culture and traditions of Saudi Arabia and as a reassurance the author was not working for the MoE.

Ultimately, the researcher sent a Brief Research Outline, Ethical Guidelines, and Informed Consent Form. These documents

(i) informed the principals of the study and its purpose,

(ii) helped the principals understand their role as a participant,

(iii) gave the principals an informed choice about whether to participate of not, and

(iv) defined the ethical rules to be observed in the study.

Principals were assured that only if, without obligation or coercion, they agreed to participate, would they be requested to sign, scan, and send back the Informed Consent Form. The study would only account for the sample based on the signed Informed Consent Forms received from the principals.

After recruiting the 10 principals to participate in the study, the researcher requested assistance in the selection of teachers from their school for participation with varied backgrounds and experience, as well as with assorted specialist areas. It would be chaotic and unnecessarily cumbersome for the researcher to select the teacher participants using the same process as the principals and identifying those with adequate knowledge of the school's management practices.

The researcher sent a brief research outline, ethical guidelines, and informed consent form as attachments to an email message (similarly attached to this study as Appendices). They were of a similar format to documents approved by the principal and (a) informed the teachers of the study and its purpose, (b) helped them understand their role in the study (c) gave them an informed choice about whether to participate of not, and (d) defined the ethical rules to be observed. Only if, without obligation or coercion, teachers agreed to participate, were they requested to sign, scan, and send back the Informed Consent Form. The study only accounted for the sample based on the signed Informed Consent Forms received from teachers based on Makkah district.

Final Sample (Size and Characteristics)

The final sample therefore incorporated 10 participants who were principals involved in the day-to-day leadership of a public school in Saudi Arabia. Initial interviews with the Principles revealed them to be at different points in adopting TQM processes as part of the school improvement strategies forming two clusters of practices.

(i) five from schools that contained early adopters of TQM practices in pursuit of school improvement, and

(ii) five from schools that contained later responders to TQM practices.

In each of the randomly chosen institutions, a further 10 teachers were recruited as a confirmatory check on how school improvement strategies and TQM practices were recognised in practice.

Data Collection Process and Triangulation

Triangulation facilitates the establishing of the credibility and validity of qualitative findings by using different data collection methods with different groups involved in the empirical study, in this case, the principals and teachers (Patton, 1999). The methods were chosen by reflection upon the appropriate methods of ascertaining opinions and perspectives of those with arguably different interests in school leadership and management. The process also provides for a more in-depth insight into the subject of the research. Cohen et al (2018) assert that, though "triangulation is not without its critics" in contemporary scientific research, "triangulation can be a useful technique where a researcher is engaged in a case study, a particular example of complex phenomena" (p.266).

That reflection was predicated on the issues arising from the aim and objectives

(i) how principals and teachers (school leaders) understand the TQM approach and its implementation for school improvement;

(ii) the implementation of the TQM approach to increase operational effectiveness and thus school improvement;

(iii) the link between a principal's management styles and the implementation process of the TQM approach for school improvement.

The data was therefore integrated from face-to-face interviews, surveys and field notes made by the researcher to record the conduct of the data gathering process and as an aide memoire, thereafter thematically reviewed. The data addressed the research questions to optimise its accuracy, comprehensiveness, reliability, credibility, and generalisability in the context of

the study findings. In its implementation therefore, the study adopted the triangular framework proposed by Oliver-Hoyo and Allen (2006) as shown in Figure 12 (overleaf).

Figure 12: Triangulated Design for Data collection

FIGURE 1

Triangulated design for data collection
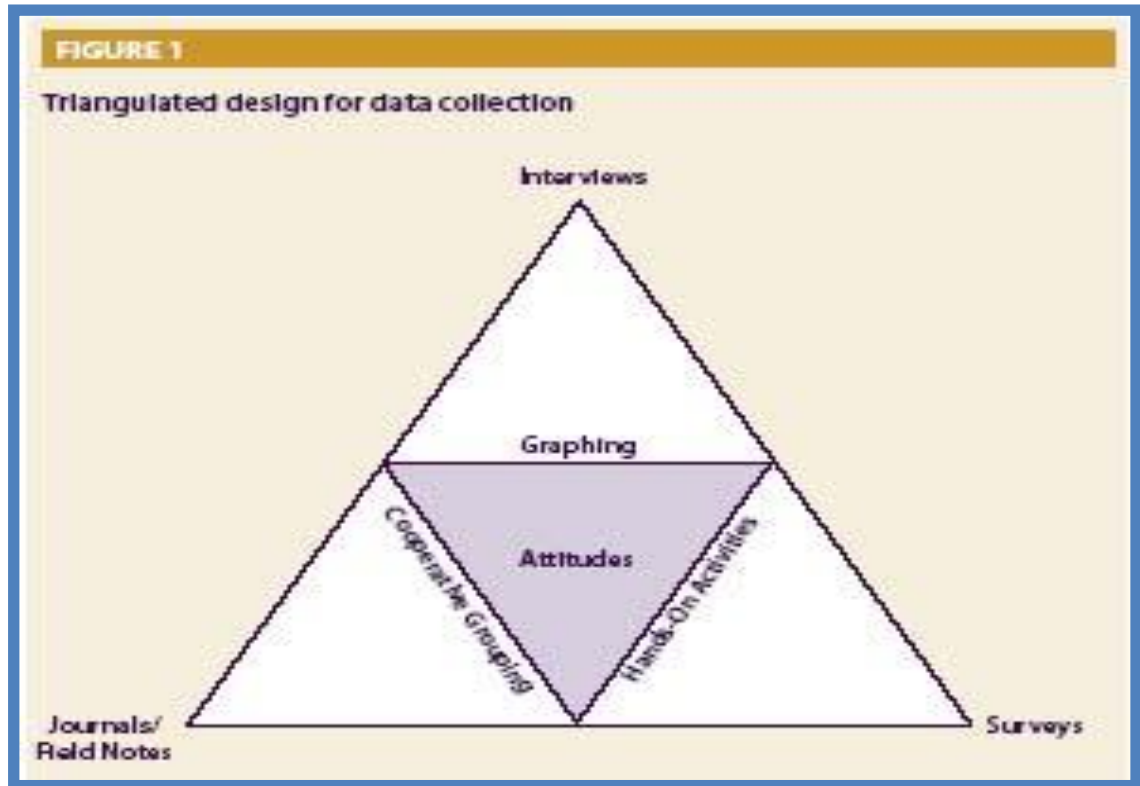
That framework was refined to serve the purpose of the study and improve understanding of the findings generated, employing a face-to-face semi-structured interview method to collect qualitative data from the sampled principals, complemented by field notes which included reflections and discussion from the pre-pilot and pilot stages. It is emphasised that all principals in all sampled schools were asked the same questions and the notes only served to aid clarification.

Further, the study did not rely on a singular data collection instrument and to effect the triangulation process and to accommodate the time demands and resources needed to conduct 10 detailed face-to-face interviews with the principals, the study employed survey questionnaires for the mining of data, opinions and perceptions of the sampled teachers. In short, principals were interviewed and teachers completed the questionnaire refined through the pilot process.

Figure 13 Data Collection Framework

	Primary data			Secondary data Previous research Thematically analyzed
	Face to face interviews	Survey Questionnaire		

What	Leading school improvement in Saudi Arabia; investigating TQM practices	Leading school improvement in Saudi Arabia; investigating TQM practices
Where	5 schools that implemented TQM early and 5 schools' later responders in Makkah region	5 schools that implemented TQM early and 5 schools' later responders in Makkah region
How	5 secondary schools that implemented TQM early and 5 secondary schools that were later responders	50 questionnaires samples were collected from 5 secondary schools that implemented TQM early , and 50 questionnaires samples were , also, collected from other 5 secondary schools, that were later responders
How	Individual consultations within sampled schools	Questionnaires were distributed among teachers
when	January, February and March	January, February and March

The reason for this differentiation of approach is not simply explained by the triangulation process but by the costs, time and logistics limitations of the research project. This arguably has an impact on veracity, but is unavoidable, and the steps taken by the researcher to develop the questionnaire process in particular is designed to ameliorate such problems.

Figure 14 Data Collection Process

Fig. 3: Customized Triangulated Data Collection Design for the Opposed Study

Perceptions and Practices of Actual Education Leaders

Are Entrusted with the Management of Saudi Arabian Secondary Schools

Complimentary Field Notes

To Accompany Interviews

Face-to-Face Interviews With *Principals*

Triangulation of Primary Data Collection & Content

Secondary Data (Critical Literature Review)

Survey Questionnaires With *Teachers*

Perceptions and Practices of Stakeholders in Education Leadership

They Witness, and Participate in the School Improvement Process of Saudi Arabian Secondary Schools

Proposed Data Collection Process

A Refined and Improved Design Initially Proposed by Oliver-Hoyo and Allen (2006)

Data Collection Process

The data collection process was designed to serve the purpose and aims of the study and is illustrated above, Figure 14. The primary data collection process took place after selecting the final sample of principals and teachers from secondary schools in Saudi Arabia, introduced the aim and purpose of the study, and received their signed consent forms. It involved conducting the questionnaire procedure with teachers and face-to-face interviews with the principals.

Questionnaires and Qualitative Research

A questionnaire is a research instrument consisting of a series of questions and other prompts for the purpose of gathering information from respondents. Though questionnaires are often designed with the purpose of statistical analysis in mind, this is not always the case and need not be so. Roopa and Rani (2012, p.273) point out that "a questionnaire enables quantitative data to be collected in a standardised way so that the data are internally consistent and coherent for analysis." They are an advantageous method of data collection in that they are comparatively inexpensive, do not require a high level of logistical planning for the questioner and respondent as would verbal face-to-face or telephone surveys and have standardised answers that make it simple to compile data quantitatively.

Berger (2000, p.181) provides an informative resume of the advantages which were taken into account in reflection of the choice of process, including those mentioned and indicating that they are relatively unobtrusive into the responsibilities of respondents and produce up-to-date information and data which is relatively easy to analyse. The questionnaire design is of course critical to the veracity of the data it produces and to its analysis, hence the considerable effort expended in honing its content to the needs of the study questions.

The survey questionnaires aimed to elicit responses from teachers relating to management, leadership and quality issues relating to their schools, the same enquiries dealing with institutions whether they had chosen to adopt TQM principles early or were later responders. In choosing the questionnaire process the researcher had visited the schools to aid reflection on methods and it was evident that time, cost and logistics favoured this procedure more than others such as interviews. This was due largely to the number of teacher-participants involved and their duties and responsibilities to the schools. They could complete them in their own time and when convenient. It should be noted that the teacher-respondents were not asked to put their names on the questionnaire or identify the particular school. They would not be identified in the analysis nor would their identity be disclosed to anyone else. This was vital to honesty in the responses.

The survey of teachers focused on;

(a) Whether they thought the TQM approach aided or limited school improvement, and their assessment of progress of school leadership and management, as well as the effect on student outcomes,

(b) How they perceived the adoption of the TQM approach could influence school improvement.

(c) How they participated in the management of quality in their respective schools, whether the management was TQM influenced or not, to facilitate comparison of the sense of involvement.

Respondents were given a week to complete the questionnaires before the researcher collected the forms from the schools, ensuring the return of all 10 completed questionnaires from each institution as well as providing an opportunity to thank each teacher for their voluntary participation. After all questionnaires had been collected, data collected by other procedures was taken into consideration during the analysis.

The standardisation of answers may as often frustrate researchers as aid them, restricting their choice of replies and failing to provide them with a sense that their opinions or experiences in regard to the subject at hand are being adequately explained and therefore represented. No time limits are imposed and much of the cogence applied to the answers depends on the attention given by the respondents. The researcher has no control over whether they are completed in one sitting or indeed if opinions and perceptions change as the questionnaire enquiries are processed by the teacher. Given these limitations, for some demographic groups conducting a survey by means of a questionnaire may not be at all practicable (King and Wincup, 2008). This is not believed to be an adverse factor for veracity given the professional nature of the participants roles. Again questionnaire design is vital to credibility and veracity of responses.

Some of the problems identified by Merkhfer (2012) have been touched upon and relate, where question drafting is unclear, to the need for interpretation by the participant of the researcher's meaning. It is difficult without clear guidance from participants to ascertain the significance of points made from mere words or how specific points made fit the broader framework of the school leadership and quality assessment. The development of the questionnaire in this study has sought to ameliorate these difficulties.

Interviews

Simply described, the purpose of an interview is to obtain information by actually talking to the participants (Manning, 2016). It is a data gathering process used to obtain opinions concerning a particular case or event (Edwards and Holland, 2013).This study included some questions regarding the early endeavours in TQM implementation in some Saudi schools and the opinions and perceptions experienced principals were elicited in person because they were most directly responsible for the management of the chosen schools.

The interview method can take various forms, including the use of personal interviews, telephone interviews, computer-based interview via e-mail, and oral and written interviews. Reflection on the most suitable method for this study took account of the diverse ways in which authoritative data could be obtained and involved detailed consideration of the choices made by other researchers in their enquiries.

Face-to-face Interviews with Participants

These involve the arrangements of meetings in a suitable place, at a convenient time, between researcher and participant, which was deemed not reasonably possible with the teacher community but suitable and sensible to discuss their schools with the principals. For research data gathering they may be structured, semi-structured, and unstructured (Mueller and Segal, (2015). Interviews can be conducted individually (one to one) or in a group (Ryan et al., 2009). A joint interview in this case was wholly inappropriate give the time and distance logistical problems for participants and there is not the history of institutional transparency of practice in Saudi Arabia which would have met any of the cultural sensibilities of competing school principals. The participants had been carefully selected, with the assistance of Directorate of Education representatives from a well examined and limited pool of institutions which met the study needs (Doyle, 2004; Gubrium and Holstein, 2002; Seidman, 1998; Steinar, 1996).

Structured Interviews

These consist of a series of closed, tightly structured standardised questions presented to the participant for consideration in which answers are expected to be limited and address the topic without expansion (Rashidi et al., 2014). Whilst they make analysis somewhat simpler, structured interviews are inflexible because participants may feel obliged into giving responses which do not reflect their true feelings about the questions at hand and are unable to expand upon their thoughts (Steinar, 1996). The approach is not suited to this study where

opinions and perceptions of TQM in education raise either support or distrust in a cultural context.

Unstructured Interviews

The unstructured interview is generally informal characterised by having no pre-prepared list of questions, leaving the field-worker free to deal with topics of interest in any order as they may arise, phrasing questions as they think is best suited to the immediate situation (Edwards and Holland, 2013). It may be useful as a preliminary study whose intention is to test what the responses from an interviewee or group of interviewees (Doyle, 2004; Seidman, 1998). It has no inherent consistency built in to interviewing a range of respondents and has the potential to turn into a socially interactive 'chat' (Zhang and Wildemuth, 2009). It may produce data pertinent to the study but have little credibility in assessment across a range of participant responses where the interviewees were not asked the same questions.

Semi-structured Interviews

Semi-structured interviews on the other hand tend to start with an initial question followed by supplementary and more probing enquiries based upon the respondent's answers to elicit a more in-depth perspective of the responses and thus generate more useful data (Guest et al 2013). Guest et al (2013, p.113) note it is "adaptable to challenging field conditions, and excellent for not just providing information but for generating understanding as well" which is precisely what is sought in this research. The interviews are often based on the assumption that the respondents have had particular experiences which they are able to elaborate upon and thus the researcher must have a clear perspective of what he wants by way of knowledge, views and opinions from participants (Doyle, 2004).

That is what makes the pilot processes so valuable in its informing of the researcher enabling him to both guide and specify the topics upon which information is sought, focusing on the respondent's subjective experiences. This allows the respondent to describe a situation on

for example quality assessment or leadership behaviour in detail, allowing the interviewer to probe more deeply into a subject by asking follow-up questions. Pre-preparation and research allows the limited time available to be most effectively used (Gubrium and Holstein, 2002). Further, as was the practice in this study, a list of questions being asked should be made available to the researcher prior to the interview to allow reflection on potential responses (Doyle, 2004; Gubrium and Holstein, 2002). This form of face-to-face interview, incorporating the practices outlined, was adopted in this research.

The Principals were advised that they would be afforded confidentiality and anonymity for their cooperation. This concern indeed was specifically expressed by three participants in the samples. This was assured and no mention was to be made of their names or schools in the thesis. The recordings were to be downloaded to the researcher's personal computer and kept thereon in a folder accessed by a password known only to the author. The recordings would not be transcribed, several quotes for this service having been obtained and beyond the means of the researcher.

Advantages of the Interview Method

It is a traditional method of gathering qualitative data for studies, popular with researchers who have sufficient authority and personality to guide the discussion process to elicit information desired on a focused subject. As with all methods, it must be prepared for with considerable attention to the aims and objectives of a research project, and it is evident from the steps taken by this researcher to examine the subject and its contextual practices (Cresswell, 2009). Merton (2008) adds further that

  (i) it is easy to administer since the interviewee does not need to handle documents or read questionnaires;

  (ii) the information is obtained from interviewees who have relevant knowledge and any misunderstandings can be corrected immediately, which is not the case with questionnaires, for example;

(iii) the interviewer has control over the order of questions, a fact which means that the interviewee does not know what supplemental or follow-up questions will follow, enabling the interviewer to develop a discussion;

(iv) answers may be accurately recorded to assist not only in data analysis but in future interviews and

(v) the process ceases to be anonymous and aids development of a relationship which facilitates forthrightness.

Misunderstandings and lack of clarity in answers are easily rectified.

Disadvantages of the Interview

The researcher must however be in control of the discussion and ensure the questions are addressed with precision before expanding with supplemental enquiries (Whiting, 2008). Interviewees may provide a large amount of information, some pertinent to the study objectives, others tangentially not strictly relevant which may create confusion (Oka, and Shaw, 2003). Though the interviewer acquires much information in a particular area, a discussion can lead to the provision of additional and unwanted information. The interviewer must remain mindful of what information he is seeking and to ensure that the subject of discussion does not move into other areas.

Bendlin (2019) expresses a concern a limited number of interviewees can make the task of generalising from the results rather difficult, particularly when different interviewees provided answers from different perspectives to the same question. As has been noted and reflected upon in the preparation of this research as a limitation, one-to-one interviews can be costly and time-consuming especially when compared with other research tools such as the questionnaire (Cresswell, 2009). Nevertheless, it was deemed a worthwhile exercise in this project to speak directly to school principals for their more in-depth perspectives on their roles in schools and what are their views and perspectives about the implementations of TQM practices in the Saudi contexts.

Review of Reflection on the Use of Semi-structured interviews

The function of the interview is to enrich the discussion of the subject under investigation, and this was particularly the case with this study. The interviews employed here were characterised by being 'open, semi-structured, and personal', with the added advantage of enabling the researcher to gain first-hand knowledge of respondents and their personal histories and contributions to the area under investigation (Cresswell. 2009). The technique of questioning during the interviews was sufficiently flexible to allow for 'follow-on' discussion of matters not initially raised in the list of questions as initially formulated. Although they were conducted in the schools run by the interviewees, the setting was private and quiet, and little tendency was observed by the interviewer of 'showing-off' or overstating their roles and the success of the schools which would have skewed the analysis of the value of TQM principles in school management (Oka and Shaw, 2003).

The study and data collection from principals was based on an 'open, semi-structured, and personal' interview technique. The interview questions had therefore to be flexible and offer allowing "the interviewer a high degree of freedom to manipulate the structure and conditions of the method" (Sarantakos, 1994, pp.178-87). This assisted the interviewee to describe his own work role, the problems he encountered, under the promise that his responses would not be used to identify him. Anonymity was repeatedly mentioned when appropriate to elicit forthright responses and personal opinions on the range of roles and diversity of responsibilities of leadership either under a TQM or traditional management framework (Kaiser, 2009). This enabled the research to draw credible and real conclusions based on life and context experience that aids fulfilment of the purpose of the study.

The experience of the author in the arrangement and conduct of the interviews was indeed matched by that outlined by academic researchers in that travel to Saudi Arabia was expensive, necessarily limited by responsibilities in the UK and well made plans and

appointments never seem to work smoothly. Interviewees were very cooperative in setting times, places and generally making arrangements for the meeting, but were less amenable to confirmatory phone calls. Nevertheless, eventually, all went as it should and there was no need for replacement. It had to be borne in mind that these were very busy professionals, but in the conduct of the interview itself, each showed considerable enthusiasm to talk about their work and their lives making the data gathering process of information pertinent to the study difficult to direct.

The Interview Process and Practice

The first group of principals interviewed were those in schools that had adopted and implemented the TQM approach for school improvement early. The researcher conducted a session of face-to-face interviews with each chosen principal, with a session lasting between 60–90 minutes, using the interview schedule in Appendix C, which had previously been made available to the respondent. Before every session, the researcher asked each participant if they were happy for the interview to be recorded for subsequent analysis and review, with the assurance that it would remain confidential and never be made available to a third party (Al-Yateem, 2012). The value of recording the interview is it can be "listened to repeatedly in case of doubt or during data analysis, and it also provides a basis for reliability and validity" (Al-Yateem, 2012, p.31). Further, during the interviews, with the permission of the respondent, the researcher took 'field notes' as an aide memoire and focussing on

      a) Management style of the principal;
      b) Challenges and barriers to TQM implementation;
      c) The principal's approach to school improvement.

After the 5 interview sessions with the principals in early adopting TQM schools, the next step was conducting face-to-face interviews with principals in secondary schools that contained later responders to the TQM approach. The researcher conducted a session with

all 10 principals, following the same approach used with the first group of principals in terms of recording the sessions, conducting the interviews, and taking field notes.

Document Analysis

Official and governmental reports and documents have always been used as a source of information in social science research and have frequently been supported with other methods such as questionnaires and interviews (Givens, 2008). They are generally referred to as secondary data material but this may arguably be a misnomer given that policy and reports are often the stimulus for reforms. Reference has been made to authoritative information in government documents which relate to TQM principles and their introduction by the MoE into the Saudi educational framework. It facilitates understanding of the theoretical basis for educational change and indeed has aided this authors appreciation of TQM as a general business concept and the transposition of pertinent principles into educational and school practices and philosophy.

Researcher observation and note-taking techniques

It is always prudent to take notes of important information to aid discussions and seek clarification, a deeper understanding of data provided and where pertinent or observable, reactions of the respondent (Driscoll, 2011). To serve this purpose and based on the area of interest and predetermined purpose, the study made use of observation and note-taking as a supportive method. Participant observation is a typical data collection method used in grounded theory research (Morse and Field 1995). Minichiello et al (1991) note researcher observation and note-taking are made of people in the context of their normal realistic environment, setting or field. In this context it was the school run by the principal–interviewee, where he felt relaxed and comfortable, potentially with a motivation to justify the operation of his leadership style and quality management.

Validity, Credibility, Trustworthiness and Reliability of Research Findings

It was a primary consideration in the study reflection process and the preliminary work undertaken in its preparation to ensure principles of credibility and veracity remained prominent considerations throughout. It has been noted that anonymity was promised to all participants and steps taken to avoid identifying them individually or indeed their school (Saunders et al., 2015). This adds to the potential for participants answer with credibility and honesty.

According to Bassey (1999, p.75), "reliability is the extent to which a research fact or findings can be repeated, given the same circumstances, and validity is the extent to which a research fact or finding is what it is claimed to be". In this focus on educational settings repeatability is a significant obstacle to overcome given that each institution operates on a different philosophy and set of values and practices which, although similar, are apt to diverge with leadership style. The aim and objective were therefore to seek broad across the secondary schools in an attempt to find answers applicable to the framework as a whole on the effect of new, active leadership and the quest for quality. This required the analysis and reporting of data findings accurately, hence the choice of philosophy and methods based on traditionally respected research practices.

In order to effect what is essentially a government change in policy and attitude toward the provision of education it is not sufficient to portray strong and inclusive leadership in the provision of improved quality of practices and outcomes as obviously 'good ideas', but provide trusted evidence of that hypothesis (Ofsted, 2018). Hence, the step-by-step scientific approach to the conduct of the study provides a high level of explanation and transparency to the research and its findings.

The sampling procedure used and selection of the final sample of participants, as well as the implementation of data collection instruments, were effected in a manner that ameliorated

risks of researcher bias through standardised procedures. Reflection on the final format of questionnaire enquiries was supported through discussions with teaching and government experts. The face-to-face interviews were organised to elicit deep data from those responsible for school administration, whether TQM or traditional, and followed up in a second interview. A pre-defined thematic analysis of secondary data was discussed and agreed with the researcher's supervisor to gain advantage from his considerably greater experience. Standardisation, advice and guidance provided a considerable body of experience on which to reflect in the reduction of personal bias and preconceptions based on the authors own teaching experience in Saudi Arabia.

A triangulation process marrying the primary and secondary data was used to enhance credibility, validity, and reliability of the findings generated (Creswell, 2014). Indeed, according to Cohen et al (2018), triangulation denotes an "attempt to map out, or explain more fully, the richness and complexity of human behaviour by studying it from more than one standpoint" (p.254). As such, to reliably capture how teachers and principals in Saudi Arabian secondary schools perceive and participate in the adoption of TQM for school improvement purposes, a single research method approach was inadequate. Questionnaires and interviews were used with different participant sets to crosscheck perceptions and the accuracy of the operation of TQM as compared to traditional practices (Trainor and Graue, 2014).

Data analysis methods

The qualitative data from both the interviews and questionnaires were analysed using thematic analysis, not only based on counting the frequency of words and phrases relating to the aims but focused on identifying explicit and implicit ideas in the data. Nowell et al (2017) point out "qualitative research is intended to generate knowledge grounded in human

experience" and in the study of a particular practice or phenomenon of different constituent factors, the definition of themes enables the data to be allocated for examination in their particular relevance. The themes are represented as codes pertinent to the research questions which were then applied to raw data as markers for later analysis (Guest et al., 2012). This process helped to provide answers to the research questions.

Research Ethics and Ethical Considerations

Neuman (2003) asserts that "ethics define what it is or is not legal to do, or what moral research procedures involve". The research followed the ethical research procedures laid down in the ethics guidelines provided by the Research and Higher Degree Committee of Manchester Metropolitan University. The practices and procedures were approved before the research plans were presented to the MoE in Saudi Arabia for permissions to conduct the study. Throughout the preparation process the researcher remained conscious of the traditions and culture of the Saudi education framework and government control and supervision. There were concerns expressed by three principals regarding access to their identity via the interview procedure, although none of the teachers expressed concern regarding their questionnaire answers, satisfied with not having to identify themselves or their schools. All participants were advised of the entitlement to withdraw from the project, although none expressed that wish, satisfied their anonymity would be guaranteed. The privacy of respondents and protection from misrepresentation and exploitation were guaranteed (Zikmund, 2003) by explaining the purposes of the survey and by not asking respondents for their names and addresses.

It is essential that the implementation of the research method complies, without any deviation, with all ethical protocols and considerations when maintaining ethical standards of modern empirical research, scholarly or otherwise, at each stage of the research process.

As Bassey (1999) asserts, research ethics in case studies should ideally incorporate "respect for democracy, respect for truth, and respect for persons" (p. 73). This was maintained throughout. The researcher remained aware that he was dealing with experienced professionals with sensitive positions to maintain in a culture which did not encourage criticism of authority. Reputation, image and status were vital to their individual roles and it has been noted that confidentiality and the maintenance of trust in the promises to preserve anonymity were central to the veracity of the information they provided. The researcher also ensured that all participants were treated with respect and dignity when participating in the data collection process, and thereafter during the analysis and presentation of findings. They were fully advised of the purpose of the study before providing consent to involvement which could be withdrawn at any time. Their written consent was obtained only after they were fully appraised of the nature of the study and expectations of them Leedy and Ormrod (2001).

With regard to confidentiality and anonymity, the researcher was aware that this was a culturally sensitive issue that might have prevented some people from participating in the research. However, by being honest, creating a relaxed environment, and reassuring participants that they would remain anonymous, participants were helped to understand that their privacy was guaranteed and that they could contribute to the study without putting themselves at risk. Wiles et al. (2007:2) argued that issues of anonymity and confidentiality are closely related because "anonymity is a vehicle by which confidentiality is operationalized". This study was conducted in Saudi culture, where privacy is a critical issue, and had to take into consideration the difficulty of criticising government policy. The researcher's accumulated experience (as a teacher, an assistant to the principal and as a researcher) enabled him to blend in during the research process. This enabled him to dig into the educational issues and problems related to the study within the framework of the

schools. He found some lack of reserve and criticism of educational reality in the diversity of opinion among the study's sample, which was helpful in ascertaining that there were two main groupings: one group of schools that had implemented quality early and some that were late responders. It is noteworthy that some supported the application of TQM despite a lack of knowledge about its applications, which may be explained by a desire to present an idealised version of the school without much knowledge of its validity or otherwise. There were also people in the sample who expressed their rejection of the application of TQM. The researcher was able to identify the various applications of TQM in schools through his presence there and his knowledge of everything related to the survey and applications that promote TQM and its practice. It should be noted that some participants indicated that there is sometimes pressure from the DOE to adopt these applications, and a lack of two-way communication and mutual criticism. The researcher felt that there was a missing link between the MOE and school leaders, who did not have autonomy to express their views and felt that they must implement instructions without question. The role of education supervisors is always limited to making sure that instructions are implemented, and this might cause some affect to the educational process.

In this study, the researcher took into consideration the level of openness to discussion, in particular because TQM policy has been handed down from higher up the hierarchy. This may have meant that participants experienced pressure to avoid potential political and social repercussions, and might have hindered their willingness to share their perceptions about the adoption of TQM. Examining an issue such as TQM practices, which contains element that may challenge societal beliefs, is a sensitive topic in the Saudi context. This is because participants may consider that their response indicates personal acceptance or rejection of an order from a higher authority. Consequently, they may not be comfortable

talking about it. Some did express their views freely, however, even though they also stated that this is a government instruction which must be taken as it is.

Alsayaq (1989), on the decision-making process in Saudi educational regulations, found that the authority of the department of education has the strongest influence on the power of the principal. Alzaidi (2008) found a lack of school autonomy, as principals in the Saudi education system continue to operate in a context in which they have weak authority. This type of instructional system from the MOE has limited the power of the principal in Saudi schools and does not contain any features of TQM or flexible leadership in the creation of an environment where organization process are focused directly on consumers (Bayraktar, E., *et al.,* 2008).

The researcher attempted to interfere as little as possible with the normal operation of the school. During the data collection process, the researcher allowed respondents adequate time to fill in and return their survey questionnaires due to their busy schedules. Any research study always disturbs "the system and disrupt routines without being able to offer any real benefit for the institution" (Flick 1998, p.57). Ultimately, all the data generated by respondents was used exclusively for the purposes of the study and will not be available to third parties for any other purpose whatsoever.

The terms anonymity and confidentiality are frequently confused in the investigation of human subjects. The relation between the two terms is critical in the design of any protocol that aims to protect participants' privacy and offers adequate informed consents. The researcher created a coding procedure to protect participants and used the data collected from individuals without identifying ownership of that data, thus maintaining participants' privacy. Furthermore, only the researcher was aware of the identity of the participants, a key measure that ensured the confidentiality of their private information. All the data was kept in a locked cabinet and all electronic files were password protected.

Conclusion

This chapter has outlined the research methodology in considerable detail, indicating the reflective process undertaken in the method selections for the study based on the research objectives and questions. During the discussion of the research methodology in this chapter, there has always been a link between research questions and objectives and the research methodology adopted. This link is essential because it is through research methodology that the researcher can apply their aims and objectives and a breakdown is expected in any study if the research methodology cannot help researcher answer the research questions.

CHAPTER 4: PRESENTATION OF FINDINGS

Introduction

The purpose of the study was to explore the relevance and interpretation of Total Quality Management (TQM) in the context of Saudi Arabian schools and how it contributes towards school improvement practices. It explored how school leaders received and responded to national policies advocating TQM as a framework for school improvement.

It was beyond the scope of the study to attempt to prove the effectiveness of TQM as a quality improvement framework for schools. What is important is that TQM has been adopted by public schools in Saudi Arabia as a process for school improvement. The study asked how some Principals interpreted and applied TQM approaches were implemented. The findings outlined here present different viewpoints expressed by education leaders in Saudi Arabia (SA), that reveal how schools perceive a TQM-based improvement framework, given that the SA context is of a developing nation where the education system is only now undergoing rapid modernisation.

The research findings have been categorised into two distinct groups: findings generated by schools that have adopted and implemented a TQM approach early, and the findings from a sample of schools that were later responders in terms of TQM implementation. All 10 schools in the sample were asked about their awareness of central government policy in regard to TQM, Vision 2030 and their approaches to school improvement. The sample helpfully gave a range of responses to the policy and offered different views of the challenges associated with it, which enabled the researcher to reframe the two sections of the sample as early TQM adopters and later responders. This more accurately reflects the range of responses to this policy initiative. These two categories support analysis of the

concerns expressed in the research questions, namely (a) the level of understanding and awareness of TQM among Principals and Teachers, (b) the conceptualisation and pursuit of school improvement and (c) the challenges and barriers to supporting school improvement through TQM. This chapter includes principal profiles from schools that were early adopters of TQM as well as those who were later responders, in order to show the nature of the schools and their main issues. TQM participants are referred to simply as PE in early adopting TQM schools; PL is used for later responders to TQM practices. The findings are primarily based on face-to-face interviews conducted among the sampled principals. Survey findings among class teachers from the sampled schools are then used to triangulate principals' claims and perceptions. The chapter discusses three key areas from the findings: a range of TQM practices, effective engagement of the leadership with school improvement through TQM.Brief Introduction to Principals of Early TQM Adopting Schools and Principals of Later Responding Schools.

Since each school being profiled varied in its management style, the data obtained were used to provide a clearer description of some of its key characteristics. This was achieved through 'pen profiling', which provided a context for the school, its principal, leadership style and TQM implementations.

The table below summaries the key features of the study schools to provide an overview of the wide variety of responses to TQM. They are then partially expanded before moving to a thematic discussion of the issues raised.

Discussion of Principals and their Schools:

Comparing demographic and professional characteristics of participating principals

Table 2 summarises the demographic and professional characteristics of participants, as profiled below. The table maps out what differed and/or was analogous among the sampled principals, which is relevant to the study.

Table 2 Comparative demographic and professional characteristics of participating principals

Table 2: Comparative Demographic and Professional Characteristics of Participating Principals

Principal	Years at Current Schools	Highest Education Certificate	Early adopter of TQM or later responders	No. Of Deputies	School population	Initiated or found TQM	Effects of TQM Implementation for school improvement	Limitations/Barriers on TQM Implementation
PE1	10 years	Postgraduate course	Early adopter	2	530 students and 45 staff members	Initiated TQM	• Improve the academic performance of students	a) Inadequate skills in leadership skills b) Lack of TQM expertise c) Excessive workloads for the teachers d) Demanding timeline to implement TQM e) Relevant training course for teachers
PE2	4 years	Undergraduate degree	Early adopter	3	450 students and 42 staff members	Initiated TQM	• Employed TQM specialist • Used TQM –based software • Conducts satisfaction survey with parents • Won 4 TQM prize	a) Infrastructural and facilities development of the school b) Adequate funding
PE3	8 years	Undergraduate degree	Early adopter	2	480 students and 42 staff members	Initiated TQM	• Used TQM –based software • Won 2 TQM prize • Holds weeklong workshop to train staff	a) Lack of TQM expertise b) Limited school budget c) Lack of adequate technology to support learning
PE4	7 years	Undergraduate degree	Early adopter	2	490 students and 43 staff members	Initiated TQM	• Improve the academic performance of students	a) Lack of TQM expertise b) Excessive workloads for the leaders c) Excessive workloads for the teachers d) Lack of TQM implementation manual
PE5	8 years	Undergraduate degree	Early adopter	2	445 students and 46 staff members	Initiated TQM	• Improve the academic performance of students	a) Lack of implementation authority among priceable b) Inability to adopt TQM approach uniquely for each school c) Bureaucratic and lengthy process at the ministry

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Principal	Years at Current Schools	Highest Education Certificate	Early adopters of TQM or later responders	No. Of Deputies	School population	Initiated or found TQM	Possible effects of of TQM Implementation for school improvement	Challenges and Barriers to applying TQM for school improvements
PL1	6 years	Postgraduate course	Later responder	2	450 students and 42 staff members	Later considered	• Improve the academic performance of students	a) Understaffing teachers b) Lack of TQM implementation manual c) Lack of TQM expertise d) Inadequate teaching facilities and equipment's e) Inadequate budget and recourses
PL2	7 years	Postgraduate course	Later responder	2	420 students and 39 staff members	Later considered	• Improved the learning process	a) Lack of TQM implementation manual b) Lack of TQM expertise c) Inadequate building and facilities and equipment's d) Inadequate budget and recourses
PL3	6 years	Undergraduate degree	Later responder	2	490 students and 44 staff members	Against TQM		a) Unqualified teachers b) Inability to adopt TQM approach uniquely for each school c) Understaffing teachers d) Inadequate budget and recourses e) Inadequate building and equipment's f) Lack of implementation authority among the principal g) Empirical regulation by the ministry
PL4	3 years	Undergraduate degree	Later responder	2	440 students and 40 staff members	Once attempted adopting TQM	• Improve the academic performance of students	a) Understaffing teachers b) Excessive workloads for teachers c) Excessive workloads for leaders d) Lack of TQM expertise and knowledge e) Inadequate teaching facilities and equipment's f) Lack of community involvement
PL5	86years	Postgraduate course	Later responder	2	460 students and 40 staff members	Once attempted adopting TQM	• Improve the academic performance of students • Improved the learning process • Reducing the students and teachers' absences	a) Inadequate building , facilities and equipment's b) Lack of community involvement c) Inadequate budget and recourses

School and Principal Profile (PE1)

The first respondent (PE1) is the principal of a public school in urban Saudi Arabia. PE1 was extremely well organised, and his office had an exceptional filing system. He was able to easily produce a file on the performance of any class or student during the initial meeting. Working with two deputy principals, PE1 inspired and initiated the implementation of TQM in the school.

Summary of key themes

TQM

PE1has been using TQM for the last five years to address worsening student performance. He used charts showing student performance trends not just for the five years during which TQM has been in effect, but also for the five years previous to this, as the focus of TQM. This meant that student performance trends for the years since the adoption of TQM could be compared with those for the years prior to its adoption, and the difference in these trends before and after adoption of TQM used as an indicator of the progress in student performance since the implementation of TQM.

TQM is viewed by the principal as a programme to record, illustrate, and compare student performance by recording their achievement over time and observing the development that has taken place. TQM has helped, and continues to help, improve both the academic performance of the students and the general operation of the school, although this is not the only function of TQM. This occurs as a result of the monitoring of school activities and facilities, use of technology, students' and teachers' attendance, and the school environment in general.

However, several limitations and shortcomings were acknowledged in implementing TQM, which were not specified by the principal. These limitations can be reduced to the lack of awareness of the nature of the school where TQM is implemented and of the awareness of the TQM tenets. Most importantly, these limitations and shortcomings can also emanate from little understanding of the appropriateness of some of these tenets to the Saudi culture of which may have some influence of the adoption of TQM in the society. This principal expressed the need to have one or two staff members exclusively tasked with implementing TQM

Of particular concern was the debilitating workload. The principal complained of job overload mainly due to a lack of adequate staff to enforce TQM-based activities. The time and effort needed to enforce quality evaluation, initiate pro-quality activities, and enforce accountability among teachers was particularly demanding.

Leadership

PE1 had two deputy principals working with him, although this was not referred to as a "management team". The structure appeared to be a classical hierarchy. This principal admitted to having limited experience and inadequate skills in leadership, and less in the delivery of training courses:

To improve our school, we need a specialist in leadership and management. As I am a leader, I took one semester in university in leadership and I think this is not enough. PE1

Consequently, he has been learning on the job, uses self-help books on leadership and intended to take another leadership course in 2018. He expressed concerns about his

debilitating workload and complained of job overload, not just because his responsibilities as leader have increased, but also because his commitment to the leadership role led him to take more courses and work harder at his professional development. This principal leads from the front, and this explains the job overload he complained of.

School Improvement

PE1 insisted that teachers need more support to achieve school improvement. PE1 also declared the importance of the teachers' role, and how he tried to motivate and foster high morale among them:

> Teachers need to have high morale and motivation in schools. (PE1)

PE1 recognised that there was a shortage in teacher training courses. That he could see this was a positive point and indicative of a high level of maturity and responsibility, because leaders do not often admit any lag or gaps in their performance in terms of school improvement.

School and Principal Profile (PE2)

The second principal (PE2) was head of the smallest public school reviewed, with three deputy principals, PE2 has led what is perhaps a successful implementation of TQM. The school employs a TQM expert who is exclusively responsible for its implementation, and in the last three years has earned four distinctive prizes, both regionally and nationally for successful achievement of TQM benchmarks.

Summary of key themes

TQM

The school has a TQM expert responsible for the implementation of TQM. A computer program and software is used to record, evaluate, and compare student performance in all aspects of education. TQM in this school is focused on elevating student performance and other school activities and facilities.

Student results are recorded in Microsoft Excel files accessible to all teachers, parents, and students. Monthly staff meetings and an annual forum are held to evaluate the past year and set goals for the next year.

At the time the researcher interviewed PE2, the school had already distributed online surveys to all parents for the third year running. This focuses on collecting parents' views on the progress of TQM, as well as their level of satisfaction with the quality of education at the school, school operations, evaluation of teaching offered, development of infrastructure and facilities, students' academic performance, and overall school improvement. This online survey was part of TQM in the sense that it allowed the school's development to be monitored from the parents' perspective and informed school leaders about weaknesses and gaps in the school performance. It was a kind of form of collecting and gathering feedback from the parents.

Leadership

This school has three deputy principals under the principal, and there was reference to this structure being a team. The structure appears to be a classical hierarchy, with the principal delegating the work to his deputies:

> …as a leader I should delegate my power to a deputy head teacher where possible or to an advising educational group. (PE2)

This principal evaluates activities in school every month during a TQM staff meeting, in which student performance and other school activities are also discussed, and goals set for the future. He then informs the staff of the revision initiative he intends to use in the following month and evaluates any progress in attaining desired goals. This suggests a concentration of power in the figure of the principal, whose leadership style directs and instructs.

School improvement

This school has distributed online surveys to all the parents which focus on collecting their views of the progress of the school, and its activities and issues. Many of these issues are beyond the understanding of parents such as their evaluation of teaching offered and school operations. These difficulties arose because most parents did not know how to evaluate the school's or teachers' performance, or used words that described how they thought. The parents' level of education and where they came from all played a role in understanding the survey questions and expressing their views.

> What is the purpose of this questionnaire? The questionnaire looks for the level of student activities, school environment, opinions about teachers and students also have their questionnaire. (PE2)

School and Principal Profile (PE3)

The third participant, PE3, was a principal in another public school that had already adopted the TQM framework, comprising 500 students and 48 staff members located in Makkah region. Working with two deputy principals, the principal had transferred into the

school after the implementation of TQM. According to PE3, the school had adopted TQM in 2011, and he supported and consolidated the implementation process.

Summary of key themes

TQM

This school has won two awards and several certificates for successful implementation of a TQM programme, though the criteria are likely to be from Ministry publications. The school uses a specialised computer program/software to record and compare the academic results of each student. These results are analysed later to give an indication of the success of implementing TQM and its positive consequences on student achievement. This school sees TQM as solely concerned with reducing costs and producing everything the students need. The principal expressed the need to document processes and employ TQM experts to guide it. The school also frequently invites guests and management specialists to attend meetings to teach staff members how best to adopt TQM principles and there is an annual forum.

> We have educated our teachers and students on the importance of TQM practices in school. We have done training courses about TQM practices with teachers, and also with staff from the Directory of Education. (PE3)

Leadership

PE3 has two deputy principals serving under him in a classical hierarchy. He stated that he delegated the work to deputies. The principal described the use of distributed leadership and transformational leadership, in which specific tasks and activities are assigned to specific teachers every month. This raises questions about his perception and understanding of the practice of leadership.

> After delegation of the work, we work to achieve documentation, and improvement in our work. I use distributed leadership, and sometimes I use transformational leadership, depending on the need. (PE3)

However, This is indicative of a top-down approach to leadership style of which the principal had used most (Note taking). All members of the teaching staff actively participate in the TQM implementation process, though it is not clear whether this is voluntary or compulsory.

School improvement

The school is in the process of acquiring adequate facilities and aids that are aimed at improving students' technological skills. PE3 assumed that these new facilities will improve the ability of the students to use technology, which will help to reduce the school budget, and to optimise the impact of TQM, though it is not specified how this will be achieved.

School and Principal Profile (PE4)

With two deputy principals under him, the fourth respondent (PE4) has served as the principal at his school for 7 years. The school adopted TQM in 2011 (6 years prior to the present study), and has been gradually integrating TQM benchmarks into more of its school activities. The implementation process has however not been very successful, although considerable progress has been made in the last two years. According to PE4, the school has now started focusing on developing awareness of implementing TQM appropriately and effectively.

Summary of key themes

TQM

The school has been progressively integrating TQM benchmarks into more and more school activities, though these activities are not clearly determined or defined. However, this has not been very successful:

> To some degree, though not quite enough. We need teamwork to successfully achieve our targets and because we have an overload of work for some this is not always possible, and therefore TQM is not implemented in the appropriate way. (PE4)

According to PE4

> …some factors that influence the implementation of TQM are financial support, teamwork and also I have only a few members of staff, so resource, and I would also benefit from a TQM expert.

Leadership

PE4 has two deputies with delegated responsibilities and whose duty it is to implement TQM. This arrangement suggests a classical hierarchy. His understanding of distributed leadership is to delegate the work to the staff and get feedback from them.

> I use distributed leadership and I see the improvement through staff performance. . (PE4)

> I adopt my style to improve the school and I distribute the activities and I follow the achievements. (PE4)

School improvement

PE4 saw that the students' academic performance had improved significantly since the adoption of TQM. Student performance is the only indicator of improvement. He mentioned some factors that might lead to school improvement:

First, preparing the school environment in general - classes, educational aids. Second, improve teachers' performance in the school. Third, improve student performance, giving prizes and so on. (PE4)

School and Principal Profile (PE5)

The last participant was sampled from a public school where TQM had been implemented. The principal (PE5) works alongside two deputy principals and has been responsible for leading the TQM programme for the last 5 years. Of all the principals sampled that were using TQM, PE5 was the most knowledgeable about the TQM framework. This was clearly demonstrated in his elucidation of why TQM has been adopted by the school, and both how and why it works.

Summary of key themes

TQM

PE5 captured some issues hindering the process of implementing TQM. He complained about the bureaucracy and time constraints that were often and unnecessarily imposed by the Ministry of Education (MoE). Bureaucracy hinders the application of TQM in many respects. For example, bureaucracy assumes a hierarchal system, which impedes teamwork, which is one of the main requirements of TQM. Moreover, bureaucratic systems do not give those in subordinate roles the freedom to make decisions or plans, however educated and experienced they are. PE5 was adamant that principals should be given more power and authority to implement TQM frameworks.

> …we need to change the way the Directorate of Education works (currently a bureaucratic system to give school more autonomy and rights to manage the affairs of their own school. (PE5)

Leadership

PE5 has 2 deputy principals, indicating that he delegates and shares responsibility with a management team and this reveals more knowledge about his leadership style. He has led the implementation of TQM for the last 5 years, indicating that he uses both distributed and transformational leadership.

School improvement

PE5 was critical of the bureaucratic process imposed by the MoE, which he felt hindered the improvement process in schools:

> …though we need extra funds to make further improvements. The improvement system is very bureaucratic and there is a long process around it, which has been put in place by the Ministry of Education to the Directorate of Education in our region. (PE5)

Further discussion of the implementers' group is included in table number 2.

Brief Profile of Later Responding Schools and their Principals

School and Principal Profile A (PL1)

In this sample, the first principal (PL1) of a Saudi school that had later responders to TQM practices expressed his interest, from the outset in implementing a quality improvement framework. However, he was adamant that he has been unable to so, and that the possibility of having a quality improvement framework was slim.

Summary of key issues

TQM

PL1 expressed a long-term interest in implementing a quality improvement framework, and was 100% supportive of the idea of TQM, but explained that it was impossible for the school to have a quality improvement framework at present. Prior to adopting a quality

improvement framework such as TQM, he said, "a plan needs to be put in place for the long term". The school currently lacked a TQM implementation expert. There were no "Updated and Standardised" guides from the Ministry of Education which would help schools adopt TQM gradually. The involvement of students and parents in the implementation of the TQM framework is also a key factor, because students are at the core of TQM since its aim is to raise achievement, and they should therefore be an integral part of planning and applying TQM. As for parents, they provide feedback essential for assessing the school's performance, and highlight gaps that need to be bridged, since they are best placed to know their children's needs and whether the school addresses them.

Leadership

PL1 operates a hierarchical structure with 2 deputy principals. He has a post-graduate diploma in leadership, but said that he uses his own guide to manage the school, although he did not specify what this was.

School improvement

The principal stated that he did not have enough teaching staff to facilitate any possible school improvement, and that those he did have had inadequate training and development. The school needs improved facilities and equipment such as smart boards, data show, laptops, iPads.

The quality improvement process needs trained teachers and officers. An adequate number of qualified teachers is needed to tackle additional responsibilities, and existing staff are already overworked. There is "an urgent need for training courses for leaders and teachers" to enable them to understand the need for, and embrace, the process of school improvement. This is a broader view of quality, not just in a narrow sense that relates to

student performance or school performance, but rather a view of quality that is tied to understanding the needs of both students and the school in general, and working hard to meet these needs.

There is also an urgent need for an effective training program for the unqualified teachers currently working at the school, leading to a professional qualification.

School and Principal Profile (PL2)

This principal's school has 420 students and 39 staff members and is located in Makkah region. With two deputy principals under him, he was posted to the school in 2010. He has gained a MA degree after employment, and has since then taken several courses (none specified).

Summary of key issues

TQM

PL2 stated that TQM practices are useful, but that implementing them creates job overload. He saw TQM as a tool for academic improvement only.

Leadership

This principal operated a hierarchical structure with 2 deputy principals, indicating a top down approach to leadership. He mentioned that he uses distributed leadership and transformational leadership but showed no clear understanding of these leadership practices:

> I did use the distributed leadership approach along with a transformational leadership style to get results. I also helped teachers individually when they needed support, which enabled them to carry on working. (PL2)

School improvement

PL2 is aware of two guides from the MoE that have been distributed to public schools, highlighting the need for progressive improvement. He stated that he uses his own guide, although it was not clear whether he uses it in all areas of school administration, as it is obligatory for all principals to follow the MoE's instructions.

School and Principal Profile C (PL3)

While expressing firm support for progressive school improvement, PL3 was adamantly against the adoption of TQM. The school did not need to adopt TQM, which this principal considered to be an official but fake platform for standardised unaccountability.

Summary of key issues

Leadership

It was apparent that this principal has a greater understanding of leadership practice. As a leader, he was looking to have more autonomy in school and authority to train teachers:

> I would like to have more validity to train teachers, access to change some curriculum, school buildings and so on (PL3)

> I work toward school improvement. I try my best to do that, although sometimes we suffer with support from the Directorate of Education, lack of resources, and limitations in our validity from the Ministry of Education (PL3)

TQM

PL3 was adamantly against the adoption of TQM. The principal was not convinced of the value and purpose of adopting TQM, and thought that it was meant for the business sector and not for educational settings. Schools that claimed to be using TQM were just using formal statements that were neither practically feasible, nor realistically achievable.

I personally think it will not work for the educational field because it's totally different to the business sector (PL3)

<u>School improvement</u>

According to PL3, the school needed to make non-standardised progressive improvements, as it was too unique in abilities, needs, profile, stakeholders, culture, and priorities to adopt a standardized approach.

He told me that the school needs more qualified teachers, because it is already understaffed and many of those already working there are unqualified. It needs more buildings, equipment and facilities to enable school improvement, because the existing ones are inadequate. PL3 was very critical of the MoE, saying that it was always trying to adopt regulations regardless of whether they had been tested and validated as appropriate for a school setting.

PL3 stated that the MoE denied schools the right to pursue their own customised improvement plan to match their needs, resources, facilities, and priorities and this view was amongst few principals. He also thought that imposing a standard framework for school improvement was likely to be unsuccessful and ineffective and school improvement plans should originate from schools themselves.

School and Principal Profile D (PL4)

PL4 was posted to his school in 2014. Working in conjunction with two deputy principals, PL4 testified to having attained impressive improvement in the school since 2014.

TQM

PL4 had tried to adopt TQM when he first arrived, however his attempts proved unsuccessful due to a number of factors, namely: (a) insufficient and under-qualified teaching staff to tackle the required improvement tasks; (b) job overload among staff, which made additional responsibilities impractical/impossible; and (c) inadequate knowledge of TQM practices, and a lack of qualified experts to guide the implementation.

Leadership

PL4 operated a hierarchical structure with 2 deputy principals. He did not refer to this as a team. The principal took the lead on issues, indicative of a top -down approach to Leadership. His understanding of leadership role is that it involves the fair distribution of work between staff, dealing with them wisely:

> If the leader deals with all activities in the school wisely, he will achieve better levels of improvement and I think that experience also plays a role in running a school (PL4)

School improvement

He understood improvement as synonymous with the improved academic performance of students, even without following any TQM framework, believing that public schools need to embrace a strategic improvement process to yield better and more qualified students. He also saw the need to involve the local community in the improvement process. However, according to PL4, schools cannot all adopt the same quality improvement framework without customising the improvement process to match the unique community that each school serves. The collaboration of parents and community members in the school improvement process enables all staff (teachers and principal) to attain greater levels of improvement

School and Principal Profile E (PL5)

The fifth principal was sampled from a school that was a later responder to TQM practices, and was working with two deputy principals. PL5 was committed to improving the school through participatory leadership. According to him, "if I transferred to another school, I would start by implementing TQM practices in the new school".

Summary of key issues

TQM

The principal had unsuccessfully attempted to adopt TQM, and would implement TQM practices in another school. He was supportive of TQM but was unable to implement it in his current school because he think there is a significant contribution of TQM for school improvement.

Leadership

PL5 operates a hierarchical structure with 2 deputy principals, and stated that he made school improvements through participatory leadership, and by strategically employing influential leadership, in which stakeholders (mostly teachers) are encouraged to actively work towards school improvement. He considers that the quality and effectiveness of a school leader can and does influence the continuous improvement process.

School improvement

Although the school has not adopted TQM, this does not mean it is not pursuing and progressively attaining improvement. Key areas of improvement have included: improving the learning process for students during everyday classes, academic performance of students during exams, eliminating high rate of absence by the teachers and gradually introducing adequate facilities for better learning outcomes. According to PL5, principals in schools that

have not yet adopted and implemented TQM are "more criticised by the Educational system and school setting," but wrongly so. It would be better if improvement was measured against issues specific to each school.

Research Questions Findings

Responses to the various research questions highlighted a number of critical themes, relevant to the application of TQM in schools. These can be categorised into three key elements, as follows:

1. the level of understanding of TQM among principals and teachers;

2. the challenges and barriers to supporting school improvement through TQM;

3. the conceptualisation and pursuit of school improvement challenges.

In the previous section, principals and school issues were profiled individually. In this section, I address the three themes above as they apply to each of the primary categories: early adopters of TQM in schools and later responders. To more effectively implement TQM in Saudi public schools, a number of barriers and preventative issues need to be addressed:

One significant theme in the data was how the interview and survey participants understood TQM in education and how it could be applied to achieve school improvement. This theme is significant for two reasons. First, because of the need to discover participants' awareness of TQM, its application, its impact and how appropriate it is for Saudi schools. Second, it is significant because policy makers need to make sure that stakeholders know about TQM so that they can use it confidently in schools. Participants were divided into two

groups: interview and survey groups. The interview group was further divided into two subgroups: principals who applied TQM in their schools early and principals who were later responders to TQM practices in their schools.

Theme one: The level of understanding of TQM among Principals and Teachers

Among those who applied TQM in their schools early, some interviewees made a link between how they defined improving school quality and understanding TQM. PE1 defined TQM in terms of the ability to document work at schools and in the 'distribution of the tasks'. Documentation was very important for this principal, because 'when we document our work, we know about the indicators of work/our benchmarks'. However, PE1 drew attention to the fact that that TQM, as used in business, differed from that applied in education:

> In schools, TQM is different in terms of its documentation. In schools, we have to always be careful with human element, which perhaps may not always be the case in the business sector. (PE1)

He believed that TQM was an effective tool for improving a school's performance, through documenting its work, for example in reducing student absences. PE1 built his knowledge on his experience in schools as a leader and how he could reduce students' absence through the implementation of TQM:

> TQM is one of the tools that can be used to improve schools and it helps to improve a school's performance, and in documenting its work. For example, student absences were high, but when I used a TQM programme as an indicator to monitor this, they were minimized. (PE1)

According to PE1, one of the advantages of implementing TQM was that it supported school leaders to explore the school's weaknesses, which they could not do by themselves because they were overloaded by responsibilities:

> TQM has improved schools because it helps to expose the shortages and weaknesses in a school. There are some leaders who don't even know which areas their schools are weak in because of the overload of responsibilities that they have, and so this is where measurements and indicators can help to show weaknesses. (PE1)

PE1 expressed his desire to learn more about TQM and its applications because he thought he lacked sufficient knowledge about it:

> For me, I don't think I know about all applications of TQM, and so I hope through my reading I learn more about these applications. (PE1)

In fact, expressing his hope to learn more about TQM highlighted two things: first, that PE1 was convinced of the benefits of TQM to the schools in which he worked; and second, that he was an example of an ambitious school leader that searched for the best for his school.

PE2 also linked the application of TQM to quality which he defined in terms of the systematic operation of all school processes and activities, and the achievement of school goals at the end of the year:

> All processes, programmes, activities, practices which are done in school should be done in a systematic way. There should be a directory which instructs everyone on what process should be followed and what will be measured at the end of a year. If all programmes are successful, it means that the school has achieved their goals. (PE2)

Also, according to PE2:

> We can benefit from using TQM practices as used in the business sector and I do believe we can apply them in school. We are thinking of establishing a department for benefiting the school, students, teachers, parents and the wider

community as they can all benefit from school and its adoption of TQM methodology. (PE2)

This shows that PE2 supported the application of TQM, which he believed could benefit the school, students, teachers, parents and the community.

This leader took a further important step for TQM practices by measuring parents' satisfaction with school activities. This was done via a survey, which PE2 had conducted even before the DoE sent one. Everyone had a real desire to apply TQM and benefit from its consequences:

> We did this questionnaire before the Directory of Education did that. We analysed the results and gave feedback about them. What is the purpose of this questionnaire? The questionnaire looks for the level of student activities, school environment, opinions about teachers and students also have their questionnaire. (PE2)

PE2 believed that more needed to be done to promote understanding TQM and how it could be used in schools in Saudi Arabia. PE2 and PE2 were willing to increasing their knowledge of TQM in schools:

> What I know of TQM is through my own reading, but I could benefit from additional TQM courses, if they were provided. There are training courses due to be provided for all staff by the Ministry of Education. (PE2)

Unlike PE2 and PE2, PE3 associated quality with reduced cost and good performance. According to PE3 'TQM means working with all our facilities and with all our products at an efficient cost'. So 'efficient cost' is a key word for quality for PE2. The equation called for by PE2 was to 'reduce our costs and produce everything that is needed for the students'. Using TQM, according to PE3, would help a school to perform well and minimise the cost. PE3 drew an analogy between TQM in business and TQM in school:

> As a leader, my duty is to take some of these standards and implement them in school, and these standards should be related to the educational field (e.g. how long is the customer satisfied?). In business, the client looks for good products which can last and work for a long time, at a good cost. In school, I measure satisfaction based on the parents, in terms of how their child is performing in school, and his ability to get benefit from the facilities that are available to him. We take into consideration the opinions of students and their parents about the school. (PE3)

This can be referred back to the questionnaire completed by parents, teachers and students in PE1's school, about their satisfaction with school activities and processes. This reflects an understanding of the customer's role and feedback in the success or failure of TQM. It also reveals that PE1 and PE3 both had a good understanding of an important part of TQM, and how serious principals and policy makers were about implementing TQM in Saudi schools. However, while both PE1 and PE2 showed that they had got a long way to go in understanding TQM, PE3 sounded confident of his knowledge and experience with TQM in schools: 'Yes, I do. I feel I have good experience and understanding of TQM practices in schools'.

His argument revealed that his understanding of TQM was satisfactory and his use of terms such as efficient cost, good products, customer satisfaction and good cost indicated that he understood the mechanism of TQM better and this view has been stated by Deming (1986) and Zairi (1995). PE4, however, showed less understanding of TQM and its processes and impact. He chose to be perfectionist, defining quality as 'to do all activities within the school in a perfect way'. This is a very general and undetailed definition which offered little explanation about what TQM and quality was:

> TQM practices in school, means look to do all activities within the school in a perfect way. The activities such as management process and teaching

methods which leads to school improvements. As a result of that, the student will get benefit from that. (PE4)

PE4 could not make the link between using TQM in business and corporate sectors and its use in schools:

> I think the TQM practices used in business organisations do not fit the educational sector. For example, we do not deal with the student as a product or in a business field, instead we look at what we have introduced to him and the outcome of that. (PE4)

This highlights a different interpretation of TQM. While PE3 was able to take some standards of TQM as they were established in business and use them in schools, PE4 could not find any principles of the use of TQM in business which could be applied in schools. PE4 showed that his knowledge of TQM was limited; he lacked knowledge of some aspects of TQM and its practice, and his answer to a question about the extent of his knowledge of TQM was: 'To some extent. Not all aspects of TQM practices'.

PE5 had a wider definition of quality, which he linked with improving the school process in terms of leadership style, school environment, classes, curriculum and teaching methods. It is a comprehensive definition of quality of school:

> TQM means improving the school process for everything related to students (leadership style, school environment, classes, curriculum and teaching method) and that will help students achieve more in school. (PE5)

According to PE4, the ultimate goal of implementing TQM was to enable students to achieve more in school. PE5 also associated the impact of TQM with reforming school, and there were two aspects to this: first were reforms inside the school, such as teaching methods and the curriculum; the second aspect involved reforms external to the school, including the bureaucratic system of the Directorate of Education which did not give schools autonomy and rights to manage their own affairs:

> TQM can mean reforming the education system in general to help achieve goals. In school, we need to reform the classes (teaching methods and curriculum). Outside school, we need to change the way the Directorate of Education works (currently a bureaucratic system to give school more autonomy and rights to manage the affairs of their own school. (PE5)

This reflects an in-depth understanding of the impact of applying TQM, on schools in Saudi Arabia. It is also an indication of awareness of the real situation that prevails in the Saudi education sector and schools. PE5 believed that he needed to learn about TQM because he was not satisfied with his knowledge and experience: 'To some extent. I have some experience in some aspects of TQM practices. I think we will need more training in this area'.

Triangulation from the teachers' survey.

Analysis of data from the survey conducted with teachers who had early applied TQM in their schools, revealed variable levels of understanding of TQM practices. As a case 20 of 50 participants have linking the level of understanding to the student learning outcomes and the surrounding of learning environment. Although the implementation of TQM have a wider perspective which contain the whole process and procedures and it goes beyond the student learning outcomes and class environment.

Surprisingly, one argument (provided by R23), defined TQM as a full program of control of the school to ensure quality, and the satisfaction of students and parents. This view tallied with that of PE3.

R38 also defined quality as working in a perfect way with low costs and efficiency. This definition is in harmony with that offered by PE2.

The majority of participants gave a general definition of TQM which was irrelevant to the TQM practices.

In conclusion, teachers' perspectives overall indicated a widely varying but often limited understanding of TQM procedures.

Understanding/awareness of TQM by Later Responding Principals and Teachers

The second part of the interview data came from a group of school leaders who delayed TQM practices in their schools. This section will compare their level of awareness and understanding of TQM and its applications. This comparison is important to explore the role that understanding of TQM plays in encouraging leaders to apply TQM in their schools.

PL1's knowledge and understanding of TQM in schools was very limited and what knowledge he did have came from what he had heard from other schools that applied TQM. PL1 believed that priority should not be given to implementing TQM in schools because they had already had plenty to do, which meant that there was not enough time. Moreover, implementing TQM in schools needed a dedicated department and experts on TQM in schools:

> I do not do that, because you need to have experts in place, a work team. Right now, we have lots of other jobs to do, so we don't have time do that. There should be a section or department in the school that is responsible for monitoring quality in the school (PL1).

However, PL1 was aware of the fact that implementing TQM in schools improved school performance: 'Yes, I have (heard). There are ongoing improvements'.

PL1 was not interested in TQM because he thought that this was not his responsibility but someone else's who needed to be an expert, specialised in this matter. He showed very

little concern about TQM, but this was the result of his very limited understanding of how it could improve school quality.

PL2 was another example of a school leader who had a limited knowledge of TQM in schools. He did not sound very confident when he stated that TQM was for school improvement:

> Yes, I thought of it (TQM) for the school's improvement, but did not have the time to focus on such practices, due to the job overload we already have. (PL2)

PL2's shortage of knowledge about TQM was due to being too busy and not having time for 'such practices'. In fact, PL2 conceptualised TQM in schools as an extra work load that would increase the burden on staff, rather than as a tool to improve quality and performance. He understood it in terms of practices that helped to measure schools' 'progress in performance', giving the MoE a benchmark against which to measure all school activities. These practices, however, could only achieve these goals with teamwork:

> TQM practices will help to achieve the goal of Vision 2030, because these practices can measure the progress in performance. It can give the Ministry of Education a benchmark of measurement for all activities in school. To adopt that you need teamwork in every school to achieve this goal. (PL2)

He was concerned about achieving school quality and improvement, as represented by the 'outcome of the students':

> I follow the improvement in school and always look at the outcome for my students and try to improve that, although I have had some difficulties, such as non-qualified teachers, lack of facilities in school and non-participation from parents. (PL2)

Although very concerned about school improvement, PL2 was not aware of models that achieved school improvement, such as TQM: 'I don't have any idea about other quality improvement models which could be used in a school environment'.

This is another example of a school leader who was not aware of TQM and its relationship with school improvement. PL2's understanding of TQM was limited to aspects such as attendance and absence of teachers and students. He was also confused about the function of TQM in business and corporate sectors with its function in schools, believing that it would treat students as products, which he refused to do, wanting only to focus on teaching and learning and their outcomes. He said:

> I think some TQM applications can work in some aspects (such as attendance and absence for teachers and students) management work (how the deputy teacher and management staff achieve.) On the other hand, it will not work if we treat the student as a product. The way to deal with the student is to see how much they achieve, how satisfied they are about the teaching and learning environment and ultimately their results – what they achieve. (PL2)

PL3 was another school leader who was extremely against the application of TQM and considered it as a waste of time. He thought that the implementation of TQM in schools involved no more than 'official papers' and 'official things', which made no difference in terms of school improvement:

> I think this application (TQM) will not work as we are in an educational organisation which is different in its attitude to a business organisation. Once I asked one of the leaders who adopted that approach and he just told me that it's just official papers/official things more than a practical thing. (PL3)

Like PL2, PL3 also mixed the application of TQM in business with that in schools. He refused the idea of applying TQM in schools, which contained human beings, as it had been established for business issues:

> I think TQM doesn't fit in with the school, as it comes from the business sector and I deal with my school in a warm way as it's the education sector. I can't deal with students as a product or teachers as factory workers. (PL3)

PL3 rejected the application of TQM to a school to the extent that he considered it a waste of time that prevented teachers from doing much more important things such as 'raising student levels', 'keeping them from bad behaviour', and 'encouraging them to continue learning', as if TQM, when applied in schools, would not achieve these goals:

> Yes, I'm aware and I have been informed by some leaders (other principals) from other schools who have tried to adopt TQM practices to better their school. They are consumed by their work and have spent more time working on it, whereas I think that I need to devote more effort on other things in the school such as raising student levels, keeping them away from bad behaviour, encouraging them to continue learning and so on. (PL3)

Similarly, PL4 saw that applying TQM required extra time and more staff as well as more experts:

> I did make some efforts towards adopting a TQM approach, but I think work in implementing TQM requires more time, extra staff, and experts in TQM practices in school. (PL4)

Despite the efforts he had put into applying TQM, he found that it was not appropriate for school or the education sector because it was created for business and corporate issues which were not applicable in his own field. Because of its origins in companies and the business sector, PL4 believed that applying it meant treating teachers as if they were workers in a

factory, and students as products. He refused this analogy and preferred to deal with students as 'valuable':

> In my opinion, TQM practices used in the business sector cannot be successful in the education sector. Teachers are not like workers in the factory. I need to deal with them differently because they teach our students. If they are happy about their work, they will do better in classes. I need to stand alongside them. Likewise, students are also different, and are not products – they are more valuable. We try to carry on teaching them effectively without looking at them as products. (PL4)

If he had a dedicated team of experts in his school, however, PL4 would not be concerned about students as products. Though he was not 'fully convinced' of the usefulness of TQM in schools, he did not mind implementing it if experts were available:

> I am not fully convinced by this application (TQM), but if I had a work team and experts in TQM practices working with me, I would certainly study the possibilities of adopting it. (PL4)

Like PL4, PL5 believed that applying TQM in schools would make the school environment similar to that of factories where the teachers represented the factory workers and the students were seen as merely products, not human beings who had feelings and emotions i.e. they were commodified:

> I agree that a school is not like a factory, because we deal with students and so we have to have morality and compassion for them. Even the teacher is not like a typical factory worker because a teacher needs to have a good attitude and motivation to teach students, so for this reason not all management practices can work in school. (PL5)

However, like PL4, PL5 did not mind adopting TQM in his schools because he thought this would lead to better outcomes: 'I think it would have been better if we had adopted TQM practices'.

Teacher Survey Triangulation

The analysis of data from the survey which was conducted with teachers whose schools were later responders to TQM applications, revealed their perspectives about the need for implementation of TQM practices in schools. 38 out of 50 participants insisted that implementing TQM would lead to improvement in performance and help in school management. Only 8 out of 50 participants declared that implementation of TQM would not bring any improvement.

Summary of the Section

Few participants had a thorough understanding of TQM. The overall findings indicated that there was a low, weak, limited, narrow and lack of proficiency of understanding of TQM practices among the participants.

Theme Two: The challenges and barriers to supporting school improvement through TQM

This section will focus on key issues affecting TQM implementation in Saudi schools and underlining the constraints that prevent it. Respondents highlighted a number of critical obstacles that hinder the application of TQM for school improvement. These can be categorised into five key obstructions: Training and development in TQM for principals, deputy principals and teachers; the role of instructions and guidance from the MoE; a shortage of facilities in schools; a lack of teamwork; and a bureaucratic system of management and administration.

Training and development for principals, deputy principals and teachers in TQM for school improvement.

This study raised a number of issues relating to training and development programmes, which are typically provided by the Directorate of Education (DoE) in each region of Saudi Arabia. Training and development were recurring themes in the data. All 10 participants interviewed (from both early TQM adopters and later responders to TQM practices in schools) clearly indicated the need for further development to match the pace and aspirational development that characterises the vision of the new government.

PE1 was very explicit and clear when stating that:

> As I am a leader, I took one semester in university in leadership and I think this is not enough, as I don't have some information about management practices, as a consequence, I find it difficult to deal with TQM practices. I think leaders need to have intensive courses in leadership and management to improve their leadership skills in schools. (PE1)

The statement above is indicative of why some leaders have faced difficulties in trying to practice TQM and lead their schools effectively. Although they took courses in TQM at university, they did not provide them with sufficient information about management. School leaders needed more intensive courses to be able to improve their leadership skills, manage schools and apply TQM.

PE2 mentioned that what he knew about TQM practices came from his own general reading based on articles from the Internet and periodicals. This had given him an idea about how TQM helped schools improve. PE2 would be prepared to take courses if they were provided. This observation may lead one to question whether the DoE has provided enough courses to prepare educational leaders for embarking on their TQM programs.

PE3 explained in his interview how he had utilised paid programs, which were normally provided in the private sector; this may have been an indication that he was unwilling to rely on or wait for the DoE to provide the specialist knowledge he needed, instead opting to be a little more proactive in furthering his TQM knowledge.

Similar concerns were expressed by principals in the schools which were later responders to TQM implementation:

> We need to improve the school building, maintenance, and training courses
> for teachers, and devices used for teaching. (PL1)

PL1 raised another issue relating to training courses, stressing the fact that some teachers refused to take part in training because they knew that their salaries would not be affected by their non-attendance, and weaker, less capable teachers were also not penalised or affected financially.

> The issue now is that all teachers still get their salaries without any decrease, even if they are not very good. I feel that if there is denationalization in schools, teachers will have to improve themselves, just like they do in private companies. (PL1)

In fact, the system of recruitment from the Ministry of Civil Services was initiated forty years ago and has not since been updated. A review of this could help motivate school leaders and teachers to work harder and achieve good progress. In support of this argument, PE1 addressed the need to improve salaries for the more competent, capable teachers stating that:

> …we are suffering from the system of how schools operate. It's an old system that has not been improved. The Ministry of Education should change the pay scale for teachers. Right now, the wages are the same for teachers, the hardworking teacher and the non-hardworking teacher. If we make a link between how they perform and what they earn, this will be better for the education sector. (PE3)

PE2 and PE3 both indicated that their schools suffer from low level and unqualified teachers. This issue takes us back to the recruiting system, which needs to be updated so that it hires only qualified teachers. The current training system could also be compulsory for all aspiring teachers. The MoE might need to find a way to motivate teachers to go to training courses and keep up their professional development:

PE1 stated that the most prominent obstacle to school improvement through TQM was motivating teachers and inspiring them to adopt TQM: "*Before going on training courses, you need to motivate and inspire your teachers*". This could be done by "*providing our teachers with more support, and on training courses. In my opinion, teachers need to have high morale and motivation in schools*".

The survey data from teachers in both early and later responding groups, indicated a need to change the training system. Surprisingly, 90% of respondents expressed a need for training courses, despite the existence of some programs offered by the MoE in each region. The reason teachers are so reluctant to attend these courses is debatable. It may be attributable to the quality of these programs or to the incentives offered to trainees.

The role of instructions and guidance from the Ministry of Education

The Ministry of Education (MoE) introduced two guides for schools, developed by Tatweer (Tatweer, 2017). The first was a procedural guide covering 27 school activities, and the second related to the method of instruction. TQM is highlighted in the first guide but it is notable that, since its creation in 2013, the content of this part has not been modified or updated. Some schools have tried to establish TQM practices based on this guidance, but given its generic nature and the wording/terminology used, a degree of development or refinement is clearly required. This can be illustrated by considering the following excerpts from the guidance:

1. **Preparing and organising programs for the new teachers on the technical and personal level.**

2. **Creating learning communities among the school staff through organising programs and workshops and exchanging visits.**

3. **Studying the school circumstances and submitting proposals for developing and improving school.**

4. **Participating in developing the school staff's skills and making all of them aware of the culture of quality. (Organizational Guide for General Education Schools, 2017).**

These statements are quite general, with little in the way of detailed clarification of the processes and how they should be implemented. There is also no mechanism in place to enable the document to be reviewed by school leaders, which is a key factor, given that principals are supposed to be following the instructions and implementing the guidance. Feedback from end users (i.e. the schools themselves) is a critical part of developing this document. Its absence perhaps answers the question of why neither these documents, nor the guidance, have changed since 2013.

In practice, school leaders' voices have been omitted at the stage of setting initiatives and developing programmes related to school improvement.

Three principals raised issues related to entitlement and autonomy in school that would give them more power to lead improvement in schools:

> We need validity/power in the school to be able to do so. We are stuck sometimes with regulations that can limit our work towards improvement. (PL3)

> We also need to improve the curriculum, but we don't have access to this, as this is done by the Ministry of Education. I think schools should be able to share in the vision of the future and in improving the curriculum. (PE3)

> The Ministry of Education tries to adopt many regulations without thinking if it can fit our or other schools. Plans should begin from schools, and not the Ministry of Education. If you want to put a plan in place, you must look at all factors that help you to adopt that. (PL3)

No workshops take place, either before or after the implementation of new practices or protocols in schools in SA; these are important building blocks in enabling institutions and their workforce to achieve any significant signs of progression. It is true to say that the nature of the MoE's instructions, guidance and regulations tend not to allow, encourage or value feedback, criticism, etc. and this may highlight, in part, why attempts to implement some of these practices have ultimately failed.

Data from the survey of both early adopters and later responders suggested that teachers are not fully cognizant of the instructions for TQM practice contained in either the Procedural or the Organizational Guide.

Shortage of facilities among schools.

Shortage of facilities has been raised as an issue for early adopters and later responders. The data revealed that 8 out of 10 in both samples agreed about the need to equip schools with more advanced technology in the classroom.

PE1 stated that improved the facilities are necessary to enhance student performance:

> We need to improve performance, improve the facilities and improve teaching method. (PE1)

Moving into a new era requires schools to be equipped with new and modern technology, alongside updating the curriculum. PE1 mentioned the need to improve schools to match international standards:

> We need to improve to achieve the goals and requirements of the new generation and in this era of new technology. If you compare two schools, one in Saudi Arabia, and the other in Finland, you will find a gap between them. This is why we need to improve our schools, so we can reach the same standard as the international schools. (PE1)

PE4 and PE5 agreed about the importance of equipping the schools with modern technology as mentioned before.

In fact, all Leaders in later responders to TQM, were more critical of the shortage of facilities, and all acknowledged this shortage in their own schools. PL2 pointed out in detail that the MoE needs to take further steps to improve school buildings, facilities and teaching aids.

> Schools need to be improved in management process and activities / teaching and learning process. Schools also need to be improved in terms of the buildings, facilities and educational aids. (PL2)

In support of this argument, both PL3 and PL4 agreed about the lack of facilities and stated:

> The school is not fully equipped, and some teachers may not be fully qualified (PL3)

> There are many areas in which schools need to improve: Classes should be equipped appropriately with new technology. (PL4)

PL5 complained about the lack of facilities because this held up school improvement:

> I feel I can do more for the school's improvement, but due to some limitations in facilities and a lack of validity in the school, I'm unable to do that. (PL5)

Findings from the survey conducted with both early TQM adopters and later responders highlighted a need to equip schools with more developed technology in classrooms. This would also encourage teachers to engage in new training courses to learn how to adopt this technology in their teaching by using technology to provide a formative and summative feedback and using some of the reliable online resources to develop their knowledge and achieve their goals in classes.

Absence of teamwork in schools

Among the challenges yielded by the data analysis was the absence of teamwork, which is essential for adopting TQM in schools.

PE2 identified one obstacle as the absence of teamwork in Saudi schools. Decisions were taken by few persons, i.e. by the head teacher, which impeded school improvement. Teamwork should be enhanced, and engaging teachers in the process of decision making was a vital step towards improving the school:

> An important thing in schools is that all decisions should not be taken by just one person. Programmes should be put in place that focus on teamwork, that encourage the formation of small working groups, and as a leader I should delegate my power to a deputy head teacher where possible or to an advising educational group. Decisions for the school should be as inclusive as possible to make all the teachers feel they are involved and this way they become more emotionally connected to the goals. (PE2)

According to PE3, the barrier was that leaders and teachers could not make changes to any aspect of the school; the MoE had to do the job. There was an urgent need to involve teachers and leaders and schools in general in the process of improvement:

> Well, as a part of the Ministry of Education, and as a school, we need to improve the system. We need to improve performance, improve the facilities, and improve teaching methods. We also need to improve the curriculum, but we don't have access to this, as this is done by the Ministry of Education. I

think schools should be able to share in the vision of the future, and in improving the curriculum. (PE3)

There is a need to involve leaders and teachers in all the details of the teaching/learning process. The bureaucratic system used in the MoE prevents this teamwork developing because it gives orders from the top of the hierarchy and asks others to carry them out with no involvement in decision-making. PL2 expressed the same idea - that the lack of teamwork made things more difficult: *"We need a work team"*.

The survey data indicated that 80% of teachers in both early adopters and later responders agreed about the necessity of applying team working in the school environment, which would lead to school improvement.

The bureaucratic system of management and administration

Another challenge that data analysis yielded was the bureaucratic system which characterised management and administration in the MoE, which denies autonomy to schools and their stakeholders and prevents them making changes to improve their schools.

PE5 suggested changes at two levels: inside the school, which meant reforming classes and teaching methods as well as the curriculum; and outside the school, which included changing the MoE's bureaucratic system, which prevented schools from being autonomous:

> In school, we need to reform the classes (teaching methods and curriculum). Outside school, we need to change the way the Directorate of Education works (currently a bureaucratic system to give school more autonomy and rights to manage the affairs of their own school. (PE5)

PL1 shared this view. He believed that the bureaucratic system was an obstacle to school improvement:

> As a leader I hope there is improvement in every process in school, but sometimes we face limitations in devices and the bureaucratic process, which means we have to keep going back to the Directorate of Education to implement things. (PL1)

School leaders need to have the opportunity to manage their schools. This is because, on the one hand, they are best placed to understand their own school's needs, and on the other hand, the regulations imposed by the MoE may not fit every school as each has a unique context. One size does not fit all.

The survey data from both early adopters and later responders indicated that bureaucratic leadership can hinder school improvement. This was mentioned by 13 participants. 80% of teachers indicated that distributed leadership could improve school performance.

Theme three: the conceptualisation and pursuit of school improvement

The theme of school improvement and how this was conceptualised by participants was also prominent in the data. School improvement was conceptualised in different ways by the participants of each group, as outlined below, and this section is essential for the aims and objectives of the study in the sense that it reflects how the participants understood school improvement to be achieved by the application of TQM.

Participants who adopted TQM early

According to PE1, the most important thing to improve schools is "to have a background in leadership and management". He said that "to improve our school, we need a specialist in leadership and management". School leaders needed to have "intensive courses" in leadership and management "to improve the leadership skills". PE1 believed that schools needed to achieve Vision 2030 by working hard because Vision 2030 would develop the teaching/learning process and lead it to internationalisation. PE1 believed that privatisation

of learning would make it meet international standards, develop the curriculum and enhance students' achievement and performance:

> We have a clear vision for 2030. We now need to work to achieve the improvement that is required on it. I believe we will improve, for example, we will improve in the curriculum. We are working toward international standards. Our pupils now participate in international exams in TMISS Exam board. (PE1)

PE1 pointed out that improvement in schools should concentrate on "*human not tools*", by which he meant that if humans responded to improvement then everything would be *"alright"*. PE1 believed that teachers had the greatest responsibility in the process of school improvement.

PE2 identified school improvement as a life-long process which did not stop when a set of goals were achieved; there should be further goals to work towards because life, society and technology were changing, so schools should adapt to these changes in their environments. PE2 believed that school leaders needed to address weakness and improve it by adopting a "strategically" more "effective" programme:

> Any association or school needs to continue to improve, because if you work to a set goal and achieve it and then do not look for further improvement, you will be left behind as the rest of the environment around you, (e.g) technical, social and communications systems continue to improve and progress. If you have a programme, which does not bring about improvement or is static, you need to change that to a strategically more effective one. (PE2)

PE2 pointed out that TQM and school improvement were related to each other: "TQM practices and improvement in schools are related to each other" because "The quality is improving in all activities and also the improvement process is to work towards improved quality in your work". In other words, he believed that TQM and school improvement were intertwined.

According to PE2, improvement started from the strategic plan, and moved towards a vision and so on. Improvement, according to PE2 was also about looking at weaknesses in planning. Improvement took place when teachers and the staff monitored their mistakes and corrected them. PE2 agreed with PE1 as far as addressing the weaknesses was concerned. Planning was a key issue for school improvement, according to PE1, who believed that improvements could be monitored by having a plan and measuring progress towards its achievement at the end of the year.:

> All education processes in schools need to be improved. First, a strategic plan needs to be put in place, which captures 3 things. Vision, Mission and Goal. The goal should be aligned to the main goal of the Ministry of Education. How do you get improvement? By putting in place well planned programmes, which start when the academic year does. Devise a plan – at the end of the year see if targets are achieved. Look at areas where improvement is made, but also where weaknesses are highlighted. Look to correct the weaknesses in the following years, and plan through appropriate strategy. (PE2)

PE2 considered that Vision 2030 would make a substantial contribution to development, and that achieving quality would help to fulfill this Vision, which would also contribute to modernisation, change and development: " *If we work towards improving school and student performance this will help us achieve international standards*", which would achieve the principles of Vision 2030.

According to PE3, schools have to improve before adapting the changing in "*management theories and practices*". PE3 also viewed school improvement as the improvement of facilities, performance, teaching methods and curriculum:

> We need to improve performance, improve the facilities, and improve teaching methods. We also need to improve the curriculum, but we don't have access to this, as this is done by the Ministry of Education. I think schools

should be able to share in the vision of the future, and in improving the curriculum. (PE3)

PE3 believed that Vision 2030 and school improvement contributed to the development of society. Vision 2030 would increase the product effectiveness and reduce cost, which would lead to society progress:

> We will achieve better results at a lower cost, which is part of the vision. We will also achieve a degree of effectiveness in the school, which is also part of the vision, in terms of improving schools. (PE3)

According to PE3, to achieve school improvement, the needs of a new generation in the era of new technology should be taken into consideration. It was also about improving the students' achievement and performance. This could be done by using new technology instead of the old teaching aids, which needed updating: "*We need to improve to achieve the goals and requirements of the new generation and in this era of new technology*".

PE3 stated that school improvement included improving students' performance as well as the facilities that support it. This could be achieved by various means, such as improving the school environment, training teachers and employing qualified leaders. "*Yes, it needs improvement. The improvement of school helps to improve performance within it in general, and the outcome of students in the school*".

PE4 also believed that school improvement started with improving school leadership: "*The leaders of schools. They need to be well trained*". Teachers were also essential in school improvement and in order to do so they needed to be qualified and trained: *"Teachers should be appropriately qualified and well trained"*.

Vision 2030 would develop schools by means of developing the "*school environment*", and "*recruiting qualified teachers*". However, PE3 believed that progress would be slow

because of the current level of teacher education and also because of the gaps in school facilities: *"I think the improvements will be slow because of the current situation, where some teachers are at a lower level than is expected and school facilities also need to be improved"*.

Similarly, PE5 concentrated on having a strategic plan for school improvement:

> Sure, a school needs a strategic plan, leaders need to adopt a clear plan and have it in place at the start of the year. This framework comes from the Directory of Education and a school leader should follow that. (PE5)

Like PE2, PE5 considered school improvement as a life-long process that never stops: *"Sure, schools need continuous improvement and this should be judged and assessed"*. According to PE5, improvement encompassed different aspects of school such as *"management affairs, teaching, learning in school and preparing and equipping the class"*. PE5, like the other participants, stated that school improvement was essential because:

> Without the improvement of the school we will be left behind, because there are changes and advancement made in life every day. The improvement process should begin by improving the leadership in schools, and by giving the leaders more chance and power to make direct changes. For class teaching, classes need to be equipped with the latest educational aids such as data show, smart board etc. Teaching methods also need to be improved to help achieve overall goals. (PE5)

Leadership was a keyword in school improvement and leaders should be given more opportunities to make changes regarding teaching aids and using teaching methods that met the needs of all types of learners.

PE5 stated that Vision 2030 could be implemented through *" a technical approach, applying technology in schools and by minimising the reliance on teachers by using e-learning classes"*. Moreover, PE5 made some suggestions to boost school performance and to reach

"*international standards*". Among these suggestions were sharing the school building and assessing each school individually because they were different and each one had a unique context:

> Schools should share in building and establishing plans. There are many experts in school and the Ministry of Education should obtain their views rather than just using another community/ school as an example to base all policy, as each school is different in relation to local community, student ability, finance etc. (PE5)

The analysis of the data from the survey conducted with teachers who early applied TQM in their schools matched partially with leaders' views in respect of school improvement, including a higher demand for training courses for teachers, and the need for the most up-to-date technology in schools. Most teachers also indicated that they believed that vision 2030 would contribute to school improvement. However, teachers' overall views were limited in scope and concentrated at the level of the classroom, while most leaders had a wider concept of school improvement such as lifelong process, strategic planning, use of new technology, updating curriculums, and improving systems in education overall.

Summary of the Section

In conclusion, leaders' wider concepts of school improvement, and their desire to implement Vision 2030 challenges the policymakers of the MoE to work hard to adapt this vision in an appropriate way. To achieve this, more work is needed towards the improvement of Saudi schools to meet the international standards. For example, update the curriculum, using the latest technology in teaching and learning and training the teachers.

Later Responding Participants

Leaders who were later responders to TQM in their schools had their own ways of conceptualising school improvement.

According to PL1, school improvement included the school buildings, teacher training, student achievement and teaching methods and aids as well as the curriculum and educational resources. These all required a long-term strategic plan:

> Of course, in general there is a need for improvement in schools. A plan needs to be put in place for the long term. First, the school building needs to be improved. Secondly, the outcome from the school, in other words, what we need/expect from students. In addition, teachers and officers in schools need to be trained. Finally, the educational resources and the training mediums need to be improved because some schools do not have those, and some have but sometimes they're not used. (PL1)

PL1 agreed with the participants in the group who applied TQM in his concentration on a strategic plan as a key for school improvement. He also agreed with identifying the need for school improvement as a tool to adapt to the changes in the school environment:

> I think we need improvement, because every year or two there are changes for the student or the teacher. Whether it's new media, social media, new activities, etc. In the past, there wasn't a connection with parents every day; now, we can do that. There are also programmes used for teachers and their students. So I think we do need improvement. (PL1)

PL1 believed that the problem with the current process of improvement was that was not monitored or evaluated which made it difficult to conclude whether progress had been made:

> There is improvement already, but there is no monitoring and evaluation. This task is made more difficult by the fact that there are new instructions every year. (PL1)

PL1 expressed the idea of denationalising education. This could be done by getting parents to pay for their children's education. His other idea was that all teachers got the same salary

whether they worked hard or not, and he emphasised that teachers in state schools should

work as hard as those in the private schools:

> I think "Vision 2030" would like to denationalise education. I agree with that
> idea. Everyone becomes responsible for taking care, (i.e.) parents and
> students become responsible because they have to pay for their education.
> The issue now is that all teachers still get their salaries without any decrease,
> even if they are not very good. I feel that if there is denationalisation in
> schools, teachers will have to improve themselves, just like they do in private
> companies. (PL1)

Moreover, the adoption of progress indicators such as those used in the UK could support

school improvement:

> If we adopt some of the indicator for school progress and put those school in
> rank every year, all school will carry on improving fast. (PL1)

PL2 also emphasised the idea of a strategic plan to achieve school improvement: "Sure - it

needs a strategic plan to improve all the processes in a school". He mentioned a "framework

of management to operate and monitor the school". This framework was essential because

it encompassed all the plans for school improvement. There was a framework that was

suggested by the MoE (Procedural Guide) but PL2 preferred his own framework because he

knew his school better and understood its needs:

> Sure, as a principal I feel that I need a strategic framework of management to
> operate and monitor the school. If we do not have this framework, all my
> plans would fail. There is a framework from the Ministry of Education called
> the regulatory Guide and Procedural Guide. It is very beneficial but I think I
> need to use my own guide to monitor the school. (PL2)

According to PL2, schools should aim for improvement because "we are in a new era, so

we need rapid improvements to reach the international standards". This improvement

included "management process and activities / teaching and learning process. Schools also need to be improved in terms of the buildings, facilities and educational aids".

PL2 believed that Vision 2030 aimed to help education and schools reach international standards. To achieve this, Saudi schools needed to adopt technology in their teaching, improve their management system, and measure performance and raise students' achievement:

> One of the aims of this vision is for the school, society, and curriculum to help reach international standards. So we need to adopt new technology, improve our management, measure the performance, educate our students, raise / improve their level and continue to train teachers for a brighter future. (PL2)

The idea of a strategic plan was repeated by PL3 as a pivotal rule for achieving improvement: *"Yes, of course we need a strategic plan for the school to improve the school's performance".*

According to PL3, school improvement started with "building new schools, rebuilding old ones, getting rid of rented schools, and getting teachers qualified". Moreover, the main focus of school improvement should be: "Build new modern schools, improve teacher performance by using new regulations with teachers. This is because teachers nowadays are the same". However, a few things held up the improvement of schools. For example, the MoE put in place plans that might not fit every school. Consequently, PL3 believed that the unique context of every school should be taken into account:

> There are, however, some difficulties facing our school. First, the Ministry of Education try to adopt many regulations without thinking if it can fit our, or other schools. Plans should begin from schools, and not the Ministry of Education. If you want to put a plan in place, you must look at all factors that help you to adopt that. Every school should have their own plan, because a

> plan in school X cannot fit school Y (simply because, for example, the building is not built by the government; it's a rented house). Sometimes, the school is not fully equipped, and some teachers many not be fully qualified. (PL3)

The other difficulty for the implementation of school improvement was that regulations were of little help and did not work properly:

> I've tried my best to improve my school, but sometimes regulations don't help, or sometimes some staff don't work properly. (PL3)

PL3 also found the system of payment unfair as far as teachers were concerned. Both hardworking and non-hardworking teachers received the same salary, which PL3 saw as unfair and demotivating for the hardworking:

> Yes, I think the school needs to improve its operation. If I can get more validity to improve teacher and staff performance, it will help. But we are suffering from the system of how schools operate. It's an old system that has not been improved. The Ministry of Education should change the pay scale for teachers. Right now, the wages are the same for teachers, the hardworking teacher and the non-hardworking teacher. If we make a link between how they perform and what they earn, this will be better for the education sector. We also do not have expert teachers and supervisor teachers, and so this should be changed. To give more motivation to the hardworking teacher who is qualified and wants to achieve the goal of improvement. (PL3)

PL4 concentrated on having a strategic plan, but he emphasised taking into account the differences between schools and their needs, so the plan would differ from one school to another:

> Sure, there should be a strategic plan for schools in Saudi Arabia, but we must take into consideration the differences between schools. Each school is in a different situation; for example, a school in area X which has educated people and well-paid people is different to a school in area Y, because this school might be located in a different area and so has a different background and different people. So in general we need improvement for all schools, but we

> should take into consideration the differences in communities, the level of the student, and the collaboration between parents. (PL4)

PL4 identified school improvement as a comprehensive process in the sense that leaders could not concentrate on one part and ignore others:

> I think we need to focus on school improvement in school, besides or should I say, alongside the other operations in the school. There are many activities in school, and so you cannot just concentrate on one part and ignore the others. (PL4)

However, he specified that some areas needed improvement more than others, for example the high number of students in a class, the use of technology in teaching and curriculum, online homework and smart technology:

> There are many areas in which schools need to improve: Classes should be equipped appropriately with new technology. Classes are sometimes full of students (maybe more than 40) and so the teachers cannot sometimes cope with them all. The curriculum should be improved to incorporate new technology, so that it can benefit the students. Pupils can do their work online and send it to the teacher. Curriculums and explanations can digitalised - smart technology can be used like iPads, computers, and so on. (PL4)

He had taken some steps towards achieving school improvement, including engaging parents in their children's education and adopting some smart classes:

> We have made some improvements in school. We have tried to contact parents by sending messages to them about the level of regularity/attendance of their children. We have adopted some smart classes. (PL4)

PL5 insisted that it was important to have a plan when the goal was school improvement:

"Of course, there is a need for improvement in schools. Plans need to be in place for the long term and revised regularly because there might be some aspects that have not been covered".

PL4 also emphasised the role of good leadership in school improvement and how a leader's efforts can make a difference, improving the school and its performance. Leadership is therefore a keyword in school development and improvement:

> Yes, of course. If we had two schools with two leaders for example and one of them adopted all the facilities and efforts to improve the school with his teachers, and the second leader didn't make much effort towards making the school more effective, the results would be that the first school would be more effective in performance and teaching. I can see this trend in my school with some teachers and their students. (PL4)

PL4 stated that school improvement could be reflected in "improvement in exam grades and progress in activities in school, this indicates that there has been improvement in the school."

Moreover, the MoE would have a role in achieving Vision 2030 through "papers/updates constantly being published". According to PL4, Vision 2030 has a good outlook "but it needs more work on the practical side, because in the past we have experienced some promises being made, but when it came to the practical application of them, we were hindered or impeded". He also supported the idea that Vision 2030 would "lead to school improvement" because of its "clear views about the future" believing that "the Ministry of Education has to work hard to support schools with new technology, equipping schools and in helping schools to adapt to the new vision".

Like PL4, PL5 identified school improvement in Saudi Arabia as a general process: *"I think Saudi Arabian schools need improvement in general"*, though he specified some particular areas that were in more need of improvement than others: *"Training courses for teachers are very important, equipping schools, supporting leaders with more validity,*

applying technology in classrooms". Moreover, there were some steps that could *"improve the level of students"* such as *"activities in school in the interests of the students".*

PL5 emphasised the fact that school improvement was a long-term process: "Plans need to be in place for the long term and revised regularly because there might be some aspects that have not been covered, in terms of improvement".

The MoE has set out two frameworks for school improvement: "the first one is a regulatory guide and the second one is a procedural guide". These two frameworks were "helpful", but still needed some improvement. PL5 considered that schools' need for improvement was varied. For example, schools that were located in areas that had low-income needed more support and improvement than other schools located in richer communities. The MoE, thus, should "take into account the influence of the community on the performance of the school". He also drew attention to parents' role in their children's education: "there are some parents who supervise their children in everything, while there are others who don't care about their children's academic progress at all".

PL5 emphasised the role of the leader in transforming schools towards a better level of performance. He used his own experience as a school leader when he arrived at a school which had different problems in terms of student achievement, teachers' absence and poor facilities. With the cooperation with the school team and teachers, he said, he could raise the school's level and make it better:

> Yes, school improvement indicates how effective our operations are. I remember when I came to this school; there were many issues relating to the school, such as: Weakness in the students' level, Teacher absence, School facilities were poor. I worked that year with my team to improve the school, then next year I worked towards more improvements, and now after five years, I can see that the school has become better in its performance. (PL5)

PL5 supported the idea that "If the leaders of Vision 2030 adopt new technology in schools, digitalise curriculums, and improve teacher performance, it will ensure the high performance of schools". He justified this by saying that when the curriculum was digitalised, new technologies adopted and teachers' qualifications improved "the school will achieve the international standard".

The analysis of data from the survey conducted with teachers in later responding schools, indicated that there is an urgent need for teacher-training and equipping schools with new technology to bring about improvement. 50 out of 50 participants also insisted on the importance of shared work and vision among teachers. R8 mentioned the need to implement modern management without autocratic leadership. R5 stressed the need for student motivation and encouragement to raise their level of performance. R32, R36 and R45 mentioned the lack of cooperation among parents and school management.

Summary of the Section

In conclusion, feedback from both early adopters and later responders revealed the need to update the training system to keep pace with Vision 2030 demands. There is also an urgent need to modify/overhaul the existing recruitment process as well as addressing performance-related pay. This is so that it can truly reflect (in a meritocratic sense at least), performance and progress in training and development amongst principals and teachers alike. This will motivate teachers and leaders to take training courses and develop their professional experience. The MoE's instruction and guidance needed updating and improving to meet the requirements for vision 2030. In addition, school leaders might need to share their vision and professional practices. Participants also clearly mentioned the absence of teamwork,

which they consider to be an essential element of adopting TQM in schools. On the other hand, a shortage of facilities was also considered as an obstacle to school improvement in both early adopters and later responders. Equipping schools with new technology is an urgent requirement to meet the international standards. Finally, the bureaucratic system of management and administration was seen as another challenge that could affect and impede improvement.

Conclusion

In conclusion, the data showed that most participants agreed about the importance of Vision 2030 for reform of the education system in Saudi Arabia. They conceptualised school improvement as a lifelong process and stressed the need for strategic planning towards improvement. In addition, participants frequently demanded more teacher and staff training, furthermore, any step towards changes in the future should consider some of the existing cultural barriers and challenges that might hinder school improvement Finally, any adoption for new ideas should be assessed before applying it in the schools through an experts and professional body

CHAPTER FIVE, DISCUSSION

Introduction

This chapter builds on the previous chapter in which the empirical fieldwork data was analysed according to the three main themes raised in the thesis: the level of the understanding of TQM among principals and teachers in the sample; the challenges and barriers to supporting school improvement in the sample and the conceptualisation and pursuit of school improvement in the Saudi Arabian context . The implications of the data presented in the previous chapter will be discussed here with reference to key ideas from the literature review. Where there is no associated commentary in the literature, this will indicate where new explanations are needed. However, the researcher believes that there are some issues related to the findings and discussion chapter which should be identified at this point. These are related to arguments about the extent to which the adoption of TQM in the business sector may be used by, and reinforce, the way it is applied in the education sector in Saudi Arabia (Zairi,2011). When comparing the adoption of TQM in business - the components, techniques used, measurement tools and efficiency are slightly different from those used in the education sector, because in the business sector it may be easier to measure and control the production of inanimate objects. . Whereas achievement and productivity in the education sector is connoted by the attitudes and behaviour of individuals – and inevitably these take longer to shape and change. In addition applying TQM in business involves different processes and procedures from those adopted in the education sector, which deals with elements related to building human character in the light of specific curricula in a specific system in a particular period of time. Nevertheless, all the processes and procedures

of TQM implementation are normally conducted by human as an attempt to achieve the productivity and the efficiency of the institution. Consequently, this study evaluates and assesses the findings from the headteachers perspectives to provide the basis for a more informed discussion of the implementation of policy, in the light of the seven principles selected from Deming's Model. Although the discussion has not specified the seven principles in the sub-headings, the content of each has been tackled in the light of what we have learned from conducting this project and from the guidance and advice of supervisors. As stated in earlier sections of this thesis, it seems that Deming's fourteen principles were first generated for the business sector rather than the education sector. However, the implementation of these principles has been tested for validity and reliability in education. This study applies them in a Saudi context to reflect on the ways in which TQM practices have been adopted. The chapter addresses each of the three research questions in turn and of presents an overview of the data from both early adopters and later responders. TQM participants are referred to simply as PE in early TQM schools; PL refers to those who were later responders.

Research Question 1 focuses on How is TQM interpreted in the sample?, Research Question 2 addresses What are the challenges and barriers to supporting school improvement through TQM? , then Research Question 3 discusses How is school improvement being conceptualised and pursued? And finally, the conclusion of the chapter.

Research Question 1: How is TQM defined in briefings for principals?

Participants were asked this question to encourage them to identify and define TQM practices, to acquire insights into their understanding of the implementation of TQM for school improvement. It was also hoped to identify critical points in the way TQM is defined

in briefings for principals. Are principals trained in TQM practices? How is TQM implemented in schools in Saudi Arabia? Why have some schools implemented TQM early while others are later responders?

Before looking at how TQM is defined by principals in Saudi Arabia, it is very important to review the background to its early establishment and King Abdullah's call to apply TQM in all public sectors in Saudi Arabia, including the MOE. This leads to a discussion about how the MOE implements TQM in the daily practice of the selected schools in DOEs and a consideration of the researcher's underlying rationale for the ambition to explore the implementation and practice of TQM in Saudi schools. This was first of all to get a better understanding of how it is implemented in daily practice; then to get a general overview on the subject under investigation; then to diagnose the everyday process and practice of leaders and teachers in some schools in Saudi Arabia; and finally to measure the extent to which these early practices of TQM have become closer to international standards. A further ambition was to attempt to evaluate these practices as a step toward mapping the way to a better future, and the development of TQM implementation in schools in a Saudi context. The researcher has conducted this study in response to the MOE's call to find out how TQM is framed in policy, whether this policy is influenced by Saudi culture, and whether the quality of TQM has been affected by culture. The above discussion has taken place in response to the circulation of organisational and structural guides by the MOE that described some of the features of TQM. According to the organisational guide (2018), TQM has been defined as an improvement of all educational and learning activities as a step toward effectiveness in school performance, although this definition of TQM has not been updated or improved since 2012, when it was first adopted (either as a concept or in terms of its

components). Closer inspection of the organisational guide shows that it can be vague, and sometimes fails to explain how to achieve and present the practical aspects of TQM in schools. This guidance also does not develop a clear model to describe its adoption in schools, and uses related components of quality management. The policymakers might have given greater consideration the contextual landscape of Saudi culture, this gap has resulted in some confusion when trying to apply the global concept of TQM at the local level of Saudi schools: "cultural differences need to be acknowledged when borrowing a new management philosophy from a different culture" (Steers, Sanchez-Runde and Nardon, 2010: 27) because borrowing new ideas from other contexts without adjusting it might leads to some conflicts during the adoption.

The organisational guide (2018) does not take into account all the components of TQM that might lead to school improvement, and fails to consider the international perspective and the practice of TQM around the world and the cultural practices that it operates within. For example, the literature on TQM practices outlines many components of the institutional implementation of TQM, such as the adoption of a new philosophy by management and workers alike, building quality into the process and product, consideration of low cost, attention to training, driving out unfairness and anxiety, breaking down internal barriers between departments, encouraging self-improvement and education for all, and making everyone responsible for the continual improvement of TQM (Nawelwa, J. et al., 2015). TQM was designed to solve particular issues in a particular context and a particular time it is important to reflect on the resonance of TQM with current educational and social practices in Saudi Arabia.

The new shape of the educational sector in Saudi Arabia requires developments at all levels to achieve the 2030 vision, which aims to restructure the current educational system

to meet international standards.

In addition, the researcher would like to draw attention to the scope for more research and training in best practice if aspects TQM are to be adopted in Saudi schools.

After assessing the findings and evaluating principals' and teachers' feedback, it seemed that even though the Saudi government has called for the implementation of TQM in educational institutions in Saudi Arabia, there was no clear comprehensive definition of TQM and its application among the study's sample. However, the current research offers insights from the interpretations of the TQM concepts that were gleaned from participants' views, which helped to create and develop the diagram below. Some participants only linked TQM with one of these elements other included all four.

***Figure 15 Schematic diagram shows the interrelated concepts among
participants***
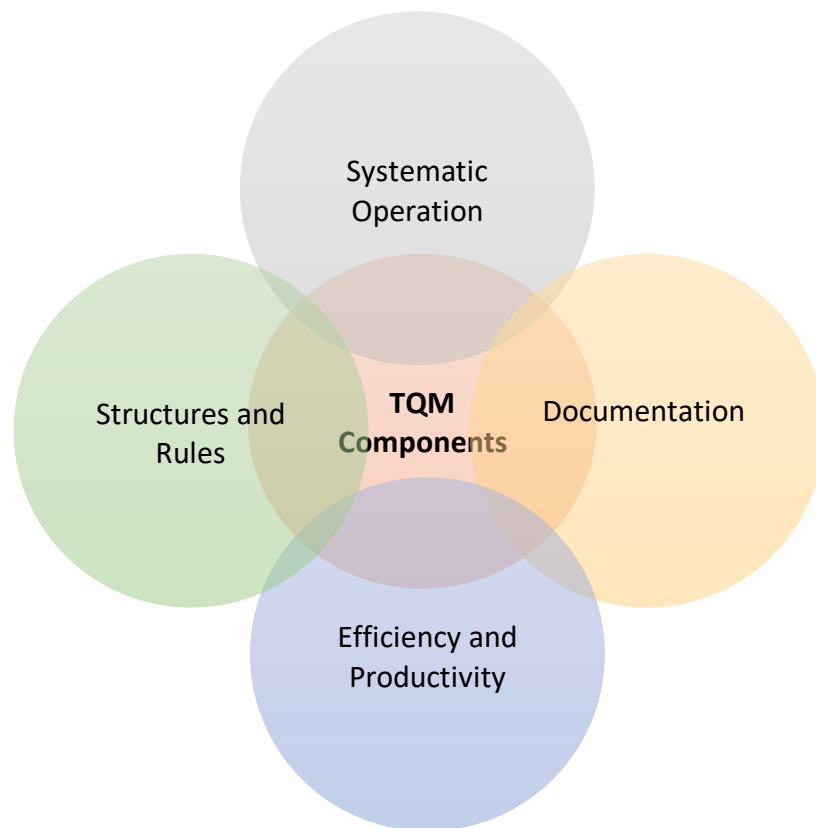
The above diagram summarises the main elements featured in the definitions provided by
the participants themselves. The following section briefly outlines each element before
reflecting on how these might interact in practice.

Documentation:

The first element of TQM focused on the ability to document work in schools and this
component concentrates on documentation as a measure of TQM practices as mentioned by

PE1 when he stated 'when we document our work, we know about the indicators of work and benchmarks'. However, this is a very narrow focus and does not take into consideration other aspects of TQM, such as feedback from teachers and students, which aims to achieve continuous improvement in the quality of the product and services to achieve customer satisfaction, such as identification of some factors related to the practice of the TQM and measurement techniques in educational institutions (Sindwani,R and Singh ,2011) PE1 considered student results to be the main proof of TQM achievement in schools, omitting other forms of evidence. The feedback from this school showed that more attention was focused on the students' learning outcomes, rather than taking into consideration the overall TQM processes and procedures. (Researcher's notes, School 1). Indeed, this restated some concerns about the accuracy of implementing TQM in Saudi Arabian education sector that are triggered by the fact that the pursuit of such positive reforms occurs (a) in the "absence of political vision," and most importantly, (b) with the "inability of educational management" (Al-Eisa 2009, p. 2).

Systematic Operation:

A second feature of TQM definitions focused on the systematic operation of all school processes and activities, and the achievement of school goals at the end of the year. This definitional focus attempts to include all the systematic processes and activities taken by a school as steps to achieve its goals. However, it seems that the kinds of activities which in practice in some cases do not link directly either to the success of those programs and activities, or to other elements related to school improvement have been omitted, such as cooperation, teachers' feedback and administrative processes. Although the definition (by PE2) mentioned all systematic operations in the school, there was limited clarification of

how to achieve its main goals. The reason change is needed is because society is changing in many aspects (Burke, 2014). In addition, what the nation expects from its education system has changed - and so schools also have to change because all public school participants have undergone dramatic changes. In addition, the researcher noted that although the school had a TQM expert who was introduced by the principal, all programs in this school are not satisfied as a professional practice of such adoption.

Efficiency and productivity:

The third aspect of TQM is associated with efficiency and productivity. As an example of this is PE3's statement that quality involves reducing costs; he drew an analogy between TQM in business and TQM in education. He had adapted TQM as applied to business to make it more suitable for the educational context. Some TQM components were noted in his school, such as those reflecting the ability to get benefits from the facilities available to the student as "a client". In addition, some measurements were related to parental satisfaction in respect of school improvement. Awareness of TQM in business had contributed to the process and practice in schools. This view is similar to some of those who believe that TQM has roots in the manufacturing industry, which later created the strong push to adopt TQM in educational contexts (Sirvanci , M , 2004). Many researchers feel that the principles of TQM can definitely contribute to the improvement of education (Brigham, 1993; Susan, 1995; Koch and Fisher, 1998; Bath et al., 2004; Peat et al., 2005).

The researcher noted that PE3 clarified his definition by asserting that it was about reducing costs and increasing efficiency to increase quality, taking into consideration that he was dealing with students and not products - so creating an environment that helps to make students more efficient and improves their social lives was the objective of TQM. "He believed that quality can improve aspects of life - it is a lifestyle, and a man who believes in

quality should do his duties with the highest level of efficiency and productivity." PE3

This view was supported by Sirvanci (2004), when he stated that cultural and organisational transformation is a set of issues that encompasses several elements of TQM. Organisations that have properly adopted TQM should have transformed their culture into a total quality culture that involves particular elements and components such as team work and market focus and the process of management. He added that there are key elements of quality application, including, in his opinion, effective management and action systems in schools, hard work, teamwork, and so on.

Structures and Rules:

The fourth viewpoint included within TQM definitions was the structure and the rules rather than the theoretical perspective that guide all principals to adopt TQM in their schools. In response to these, PE5 confessed that in his experience as a principal TQM means improving school processes in everything related to student learning, leadership styles, school improvement, classes, curriculums, and teaching methods. All these efforts will help students achieve more in their learning outcomes. This is a good indicator of how TQM has been applied in this school. For example, compared with other TQM implementers, this school managed to create a positive atmosphere and an encouraging environment, despite a shortage of facilities, equipment, and technologies. In support of this approach, some scholars have emphasised the importance of appropriate leadership to the success of TQM implementation (Sirvanci,2004). Top management in schools should be aware of the need for TQM; understand the importance of employees, concentrate on long term performance and have a good measurement system to justify TQM practice through action.

However, the researcher would like to mention that this extracted summary has been set out to help develop a picture of how TQM has been defined, and does not mean that one

principal's view of it as a systematic operation is universally the case, as the features may not be available in some schools. In other words, all the features in the diagram are intended to show that all components may be interrelated and blended to different degrees in different contexts.

The elements mentioned above provide an overall view of TQM implementation in the early TQM schools. The next section will briefly describe another understanding of TQM, that of a principal whose school responded later to TQM practices. Overall, later responders pointed to another understanding of the components of TQM adoption in schools. Some considered the adoption in terms of job overload, considered it a waste of time, and took the narrow view that was a mix between TQM in business and educational contexts.

To this extent, one later responder totally rejected the idea of TQM implementation in school. He explained his rejection by evaluating the early practices and failure of TQM in developed countries. Hynds (2010) suggested that some of the factors that cause resistance to change include the loss of familiarity, the loss of personal choice and values, possible loss of authority, and fear of change and dependence (Toremen et al., 2009).

Research Question 2: How is TQM implemented in schools in Saudi Arabia?

In respect of how it has been implemented, there are many differences in the way TQM practices have been applied in the sampled schools. One difference is expressed in the practical action of documenting all the work and distributing all tasks among employees within the school environment, while some have taken a broad view that presents TQM as the systematic operation of all processes that lead to the achievement of the school's goals by the end of the year. The following sections provide a description of some of the practicalities of implementing TQM in the sample of schools:

a) Student achievement and documentation as an indicator of TQM practices.

Few of the participants had considered students' achievement and documentation as an indicator of TQM practices and that such tracking might indicate to the successful implementation of TQM. In addition, this view has reinforced the documentation of all processes and procedures that help the administration of the school, to assess and evaluate to what extent they are successful and achieving their goal. The researcher noted that the implementation of TQM in school 1 concentrated on two things. One was documentation of the TQM work in files, and presenting students results and achievement on display boards. This might be developed to more indicators to monitor and measure students' performance in all activities each year. This is in line with the view of Moss and Dahlberg (2008: 4) who suggested that "Quality improvement in schools can be established by "evaluation/ measuring the norms of performance" that result from management practice in such schools; a view in line with Deming's principles (numbers 1, 5 and 13) of continuous improvement. This view of practice did not consider all dimensions of quality in schools such as school competitiveness, learning outcomes, receiving feedback from stakeholders and school improvement; the literature suggests that quality in educational institutions must refer to some body or activity. In addition, quality has been defined with reference to at least four of the main stakeholders in any school system: students, parents, school identity and society. Student achievement is only one of the stakeholder view of how TQM is working and does not reflect its impact on all the participants.

b) Systematic operation as a sign of TQM implementation".

This perspective implements a variety of TQM components such as setting a target and goal for the school and using some method of measurement to monitor improvements. Furthermore, it frequently surveys parents and students to measure their satisfaction with

school practices - both teaching methods and the school environment. for example, a quality officer had been appointed in School 2 to follow up all processes and procedures in TQM implementation. In support of this approach, a number of research studies such as (Erikson and Hansson, 2003) argue that TQM is more likely to succeeded if its application is satisfactory.

During his visit to this school, the researcher observed that more attention and support has been given to this school. This was the only school that had an expert quality officer to manage all TQM procedures. In support of this strategy, Alruwaili (2013) indicated that among existing organizations in the 21st century, most Saudi institutions have functioned in the traditional system. Therefore, the MOE needs to diagnose challenges and barriers to the early practice of TQM in Saudi Arabia and try to find solutions through training and development for principals. This could be done by adopting some strategies, updating curriculum monitoring and evaluating processes and procedures every year, in line with principle number 5 of Deming's principles. In addition, the MOE should think about how to improve the quality of TQM implementation, rather than reflecting only on the quantity of TQM applied across all districts in Saudi schools.

c) *Improving social life as a sign of TQM implementation"*

A third view of TQM implementation practices focuses on lifestyle or daily routines as an indicator of the extent to which the individual has become aware of its importance, as reflected in the use of TQM practices in daily life. The idea is that once an individual in an educational setting believes in TQM practices they will continue to improve their daily practice by attempting to do their duties with the highest level of efficiency and accuracy (Researcher's notes, School 3) and this matched Deming's perspective on continuous improvement (principles 1, 5 and 13; and principle 7 on productivity). This perspective was

significant, and related to what has been considered to be a practical aspect of TQM for a long time; it is a continuous process that starts from a belief in quality, reducing costs, increasing efficiency and accuracy, trying to improve the social life of the whole community and the learning outcomes of all educational institutions. Students are in after-school activities and some kind of learners' association has formed, whose members include both teachers and parents. This approach also includes some components that will encourage better adoption of TQM practice, taking into account job ethics, morale and motivation to improve and enhance daily activities in any educational institution to achieve some academic improvement with a lower dropout rate and fewer mistakes, as well as cost cutting (Pourrajab, M. et al., 2014).

In support of this approach, some research studies reveals that adopting TQM is a neutral phenomenon. Furthermore, TQM is considered to be a process-oriented approach for increasing productivity, decreasing cost and improving the quality of services (Johnson, 1993; Fincher, 1994; Green, 1994; Moreland and Clark, 1998). The vision of quality pursued by the sample did not provide a better quality implementation of TQM in those schools. However, some components were clearly noted by participants when they expressed their vision of quality by focusing on reducing costs, efficiency, tackling limited resources, and trying to employ all human resources available in the institution.

This is therefore an approach, in which an implementation is seen to be supported by effective leadership. This is in line with the secondary material. According to a study conducted by Jamaa (2010), the effective application of TQM in public high schools results in an effort to address the quality improvement in educational sectors.

d) Creating an effective school when applying TQM practice in Saudi Arabian schools.

This Saudi vision of implementing TQM in schools focuses on creating an atmosphere that

lead to successful practice of TQM by offering more flexibility to principals in Saudi schools. The underlying rationale is that TQM might help to create a positive educational environment both inside and outside educational institutions, although some components may be seen as internal or external elements that to some extent affect the effectiveness of the implementation. For example, assessing teamwork, hard work in school, or effective management could provide a clear picture of leadership and management, team working and co-operation with issues related to practice inside the school. Although some outside factors may play a role in effective management style and team working and co-operation between schools and MOE, for example, having two ways communications and considering feedback from all stakeholders. In addition it should give attention or have observed principal activities that may leads to failure of adopting TQM in some schools. In support of this argument, at the first international TQM conference in Saudi Arabia, Alruwaili (2013) said "this conference gave me a better understanding of the recent movement towards TQM and its rationale". When the Ministry in 2009 issued a circular no 42-58/10-17 on the 30/1/1430 [27-01-2009] asking 83 directorate in Saudi Arabia to introduce TQM, no compelling reasons were given in the Ministry's letters and polices. This conference shed light on how some cultural elements such as hierarchy and non-organised strategies and policies circulated by the MOE hindered the practice of TQM in some educational institutions in Saudi Arabia. Some of the sample's participants were aware of the difficulties and issues related to circulation when they provided their notes to the researcher on his visits.

Managing and creating positive attitudes in any education institution will be considered as a base for any implementation of TQM practices such as applying emotional intelligence, effective two-way management, hard work and teamwork, to put TQM into practice, matching Deming's principle number 11. In addition, the researcher noted that

there were shortage of facilities and technology despite (which matched Deming's principle 8).

Research Question 3: Why have some schools implemented TQM early and others responded later?

Before considering possible answers to this question, it is important to explain that this study covered both early adopters of TQM and later responders to TQM practices in schools. This was a response to an official paper circulated by the MOE, which was a call to apply TQM in all schools, with the flexibility to start implementing it either in the same year or in subsequent years. As consequence, the researcher had the opportunity to exploit differences in the timing of TQM implementation and observe its early practice in Saudi Arabian schools by looking at both early adopters of TQM and later responders.

The reasons only some schools implemented TQM early, while others were later responders to TQM practices, have been summarised from the findings of the study:

a) *Instructional order from the MOE"*

This instructional order was a response to King Abdullah's request to implement TQM in all governmental sectors in the country, including the Ministry of Education. The MOE established the department of TQM in 2011 in Riyadh, and then rolled it out gradually to each Directorate of Education in Saudi Arabia. Early implementation of TQM started with celebrating TQM day in November every year as stated by UNISCO. This has led to gradual implementation, in which some schools have responded quickly to the call for TQM, and others have not.

b) *Support and help from Directorate of Education"*

A few schools stated that they had begun to implement TQM early because they had full support and encouragement from the DOE. Furthermore, quality officers have been nominated to follow up all TQM practices and the schools themselves have been equipped with modern facilities and technology that can help to meet the requirements for school improvement.

c) *To diagnose the challenges and obstacles blocking school improvement"*

The third explanation for implementation of/failure to implement TQM lies in the diagnosis and recognition of the challenges and obstacles that conflict with and prevent implementation in selected schools. The rationale for this was to define some aspects of quality and quality measurement in educational institutions before applying them to actual practices of adopting TQM, taking into consideration some current work which focuses on the establishment of TQM philosophy in Education, and trying to set out a vision of how TQM implementation might help achieve the goal of quality in educational institutions. Initially of its setting, the diagnoses of TQM should focus on organising and practicing some objectives that can be realistically applicable. In addition to the above rationale, the purpose of listed attributes of total quality management in educational settings of which might help to develop a systematic model that benefit the researcher and the academic institutions in Saudi Arabia. That would assess to develop a framework that suit the Saudi culture and can be applicable, adjustable, and easily monitored by quality officers national-wise. The need to diagnose challenges was noted by PE5 when he stated "I see that it is still unclear and incompletely applied, but anyway it can be improved if we can overcome the challenges and difficulties facing the quality application process."

This reinforces the validity of the social cultural theory which suggests that situated

learning activities occur among practitioners in a community of practice because these almost always have histories and developmental cycles, and reproduce themselves in such a way that the transformation of new information or comers into old timers becomes unremarkably integral to the practice (Lave and Wenger, 1991). As all TQM implementation and its procedures and practices takes place in a (social) world that is constituted in social practices that are in the process of reproduction, transformation, acceptance and change, this leaves some challenging problems, which have been addressed. This demonstrated and explained some characteristics of the lived experience of being in a Saudi educational institution. These characteristics and the analyses of them generate analytic terms and questions about how the MOE might construct and develop a new form of practice to achieve best practice in TQM. In other words, some of the things achieved at the end of this study, such as the identity of Saudi personal, the demonstration of a lack of knowledge of TQM (leading to the matter of inadequate practice and training in pursuit of such enterprises) ultimately provided a real picture of the ability of the leadership of some Saudi institutions. As this study has discovered, they are not experienced enough in the real world of practice, and have engaged less with TQM, which is ultimately a form of learning to reproduce a better picture of the community. Over the past century, social scientists have become very sensitive to culture and its influence on human development; the human mind specifically has been gradually acknowledged as a contextualised phenomenon leading to the concept of a social mind. There is much consensus nowadays that culture influences the content and course of development and learning (Van Ores, 2009)

This hints at the need to establish an appropriate model of TQM for adoption in all schools, a model that should provide some quality management assessment criteria and validate the process and procedures at every single stage of adoption of TQM in schools; a

model applicable to Saudi culture in practice.

d) The necessity of, and requirement for, change

The need for change has become an important element in modern society world-wide, which is why individuals in institutions need to cooperate and coordinate their activities and action plans to achieve the organisation's goals. To do so, they should develop, create, and share a "mental model" based on the values and beliefs that will assist them in making any decision to achieve their aims. The need for change has become more obvious in modern society as a consequence of the speed of technology in use in our daily lives, including education systems. In support of this argument Altun and Yildiz (2011) write that "Changes in technology affect many sectors including the education system and education overall has never been immune to change. This need for change appears as a fact that influences the aims and goal of education in all schools as a step to enhance the number of students as "clients" who can fulfil or who are expected to exceed the required level of academic proficiency, and to continue providing students who are highly skillful and competitive in the existing modern and high technology world. (Pang, Pisapia, 2012). This is in line with Deming's principle 14.

Facilitating change in any society requires that a vision be set out, and a mission made of the activities required to guarantee the achievement of institutional goals. In facilitating individuals or groups, the leader should share mental models and encourage individuals and groups to make sure that their view is accurate and precise which is associated with Deming's principle 11. MOE experts should look forward and try to adopt a national perspective that is fit for purpose. As prescribed by Burke (2014):

- Change is needed because society is changing in many aspects;

- Change is needed because expectations of the nation's schools have changed;

- Schools have to change because public school students have undergone visible change.

Consequently, educational experts have been looking for techniques and strategies to enhance the quality of education and keep up with 'world class' standards. This was mentioned by PE2 and PE3 when they claimed that

> Any association or school needs to continue to improve, because if you work to a set goal and achieve it and then do not look for further improvement, you will be left behind as the rest of the environment around you (e.g) technical, social and communications systems continue to improve and progress. If you have a programme which does not bring about improvement or is static, you need to change that to a strategically more effective one. PE2

> We need to improve to achieve the goals and requirements of the new generation and in this era of new technology. If you compare two schools, one in Saudi Arabia, and the other in Finland, you will find a gap between them. This is why we need to improve our schools, so we can reach the same standard as the international schools. PE3

Therefore, most Saudi educational institutions, which have been functioning in an old systematic way among the organisations of the 21st century are under pressure to speed up the process and practice of TQM implementation in schools. So the MOE based research groups have to consider adopting some theory of change that suits the culture of Saudi

society and frame a strategic plan for principals in Saudi schools to put into practice. When developed, this may help leading Saudi individuals or groups to communicate their point of view and later lead to the creation of a common understanding of TQM that can help the decision making process.

Participants' mentioned some visions that matched the vision of 2030 that may help to speed up change. Some of the components mentioned expressed the shared vision of principals and experts: the need to update the educational system and curriculum, improve learning activities for students, develop learning achievement, creativity and innovation, employ highly qualified teachers, widen cooperation with the private education sector for better performance.

Later Responders to TQM Practices

In attempting to explain why some schools have delayed the implementation of TQM practices, the following points are relevant:

a) *Time: Flexibility in the Adoption of TQM in Schools.*

Papers circulated by from the Ministry of Education requesting the implementation of TQM do not attempt to force all national schools to start applying TQM in the same year. This gives some flexibility to principals about when to apply TQM in their daily practice in their schools. The MOE's call began in a symbolic way, for example by celebrating international day for TQM in November in every year UNISCO.

b) *Resistance to Change.*

The second reason given by some later responders has been referred to as "resistance to change". Resistance can refer to individual or societal resistance to implementing a new vision. Society's values and beliefs sometimes reject new practices or ideas that bring

change. This resistance becomes more entrenched when it concerns the establishment of new techniques and measurements that assess individual and community performance. PL3 came close to this position when he claimed that adopting any foreign perspective on TQM would probably not be suitable for local school improvement. For example, educators aspire to create change, but it is difficult for them to accept, and it depends on the extent of the stability of school being threatened (Johnston, 1999)

In addition, PL4 stressed the need to take into consideration the differences between schools:

> We must take into consideration the differences between schools. Each school is in a different situation; for example, a school in area X which has educated people and well-paid people is different to a school in area Y, because this school might be located in a different area and so has a different background and different people. So in general we need improvement for all schools, but we should take into consideration the differences in communities, the level of the student, and the collaboration between parents.PL4

Consequently, the MOE might need to consider differences among all schools placed in different geographical location in each directorate of education and the different background, level of achievement, availability of services and cooperation of stakeholders.

c) *Lack of Support From and Discouragement by the DOE*

The third reason given by later responders related to discouragement by the MOE. Overall perspectives which rejected TQM implementation were linked to the current environment around the school, which influences the application of TQM practices. For example, some schools raised issues related to the lack of facilities and support from MOE while others stated that there was no guidance or clarification on how to adopt and implement

TQM in schools. In addition, most of these schools mentioned work overload. Some other factors related to the discouragement of the MOE refer to the lack of team work and non-customer market focus and involvement of all employees in the process of management (Sirvanci, M. B, 2004). However, TQM is not the only way to effect change. As proof of that, some of the later responders to TQM practices have considered some components of TQM in their daily practice. In addition, not all of the early TQM implementers have made changes or enhanced the learning outcomes within their school. This outcome came from evaluating and assessing findings from the later responders as well as the early TQM adopters. The researcher believes that more research needs to be developed, toward better clarification of school improvement in Saudi schools.

Research Question 2: What are the challenges and barriers to applying TQM for school improvement in schools in Saudi Arabia?

In response to the above question, this section will discuss key issues that may affect the implementation of TQM toward school improvement in Saudi schools. A number of critical obstacles that hinder the application of TQM for school improvement in Saudi school will be discussed. The researcher noted that school improvement in Saudi Arabian schools faces some challenges that hinder the process and procedures necessary to achieve school development. The most obvious obstacles that hindered the adoption of TQM for school improvement: lack of training and development, the role of instruction and guidance from the MOE, shortage of facilities and technology, lack of teamwork and bureaucratic system of management and administration. Therefore developing a framework for managing school change would be helpful and this would be prescriptive or allow flexibility. It also would need all of these barriers to be supported. A leadership college that helps leaders to develop a shared vision and training in each of the elements and then an expectation that they account

for their practices in each.

1. The Role of instruction and Guidance from the MOE.

The instructional and organizational guide from MOE should provide all employees and institutions with a clear idea of how TQM systems and mechanisms work. But although the MOE has circulated some overall general ideas and guidance on the need for TQM in schools, the researcher's notes and the principals of the schools studied voiced many criticisms of this guide. For example, the structure and mechanism of the guide misses most components and characteristics of best practice in schools and omits to include measurement techniques. In addition, it offers no clear view of how to cooperate with the MOE by giving and receiving feedback, or about workshops on these applications, which means that attempts to adopt TQM processes lack precision and are only vaguely understood. In support of this argument as stated by PL3, PE4 and PL4:

> We need validity/power in the school to be able to do so. We are stuck sometimes with regulations that can limit our work towards improvement. (PL3)

> We also need to improve the curriculum, but we don't have access to this, as this is done by the Ministry of Education. I think schools should be able to share in the vision of the future and in improving the curriculum. (PE3)

> The Ministry of Education tries to adopt many regulations without thinking if it can fit our (or other) schools. Plans should begin from schools, and not the Ministry of Education. If you want to put a plan in place, you must look at all factors that help you to adopt that. (PL4)

In line with the above discussion, a study by Alsayaq (1989) on the decision-making process in Saudi educational regulations, found that the authority of the department of education is the most influential factor on the power of the principal. Another study by Alzaidi (2008) shows that there is a lack of school autonomy because principals in the Saudi

education system continue to operate in a context where they have weak authority. This type of instructional system from the MOE has limited the power of the principal in Saudi schools and has not offered features of applying TQM and leadership, flexibility in the creation of environment where organization process are focused directly on consumers (Bayraktar, E., *et al.,* 2008).

The reality of leadership in Saudi educational institutions (where the MOE is at the top of the decision-making pyramid and the "school" is at the bottom), has limited the power and authority of principals in Saudi schools.

Although this is the case in Saudi Arabia, the researcher noted that if principals had been allowed more flexibility and autonomy, more creative ways and more solutions to obstacles might be tackled. Furthermore, interactive strategy might be created and developed, and individual characteristics might provide different ways of achieving or reaching school improvement.

2. *Training and Development of Principals and Teachers*

There are some constitutional forces, whether personal or organisational, that might affect school improvement. Yet any implementation of process and procedure to a certain level with different degrees of practice and sometimes in a different forms, for example; (the lack of education and inadequate training) may affect directly any form adopting TQM in practice. Furthermore, MOE's failure to introduce training to continue professional development did not consider the improvement and development of participants. Therefore, a proper education, training and activities may give better vision and practice for the implementation of TQM which has reinforce the Deming's principle number 5. Moreover, the contexts in which TQM was first introduced and implemented were political and economic. Therefore, all kinds of training and educational development (and evaluation and

assessment) must be reshaped and restructured to fit the Saudi context because just adopting some form of development that has been practiced in western culture may not be suitable. Therefore, researchers and educationalists in the MOE test and justify new developments before putting them into practice. Alrawili (2012) has mentioned the lack of education and inadequate training among some directorates of education nationally.

Therefore, in the early stages, training should be a key objective of any framework for developing school improvement, which will help create consistency of purpose toward improvement. The researcher noticed, during his school visits that none of the schools implementing TQM have a clear plan of how to do it, and adopting a new management philosophy without a mind map that provides clear guidance and structure will result in a variety of practices and varying degrees of achievement. In addition, inadequate training for the job at hand will lead to confusion within institutions and between employees. Consequently, without breaking down internal barriers, any educational institution must work together internally and externally with the MOE. More than one principal shared this view, as this example from PE1 shows:

> As I am a leader, I took one semester in university in leadership and I think this is not enough, as I don't have some information about management practices, as a consequence, I find it difficult to deal with TQM practices. I think leaders need to have intensive courses in leadership and management to improve their leadership skills in schools. (PE1)

There is no schedule for training in how to implement TQM in schools, and that in some other cases principals were searching for information about TQM by themselves. This reflects a general shortage of training and development for human resources in schools. Other relevant factors that affect the implementation of TQM in Saudi schools include a

lack of motivation and no salary allowance for TQM implementers and qualified leaders which they see as unfair. This point was stressed in the findings when PL1 and PL3 stated that

> The issue now is that all teachers still get their salaries without any decrease, even if they are not very good. I feel that if there is denationalization in schools, teachers will have to improve themselves, just like they do in private companies. (PL1)

> …we are suffering from the system of how schools operate. It's an old system that has not been improved. The Ministry of Education should change the pay scale for teachers. Right now, the wages are the same for teachers, the hardworking teacher and the non-hardworking teacher. If we make a link between how they perform and what they earn, this will be better for the education sector. (PL3)

The most conspicuous obstacle to TQM implementation was the failure to motivate and inspire teachers to adopt TQM: "*Before going on training courses, you need to motivate and inspire your teachers*". This could be done by "*providing our teachers with more support, and on training courses. In my opinion, teachers need to have high morale and motivation in schools*". (PL3)

In conclusion, the process of training should start with training the top management of the MOE in National Collage for school leadership, and granting training in continuous development and progression to leaders and teachers in local educational institutions. It is essential that everybody is proactive in some way, so that they can feel they are playing a role in the project. Active leadership from top management to lower management is an important aspect of implementation of TQM processes and procedures.

3. Shortage of Resources and Facilities in Schools.

Results from the findings and literature indicated the importance of providing the basic components of TQM in each school. The MOE in Saudi Arabia should grant all schools equal support, equipment, technology, guidance and facilities as a base from which to practice TQM. Before judging any school improvement, we must look at the input, output, student performance and surrounding environment of any educational institution and human resources. This is associated with Deming's principle 4.

This was addressed by a total of 8 out of 10 principals in both samples. For example, PL2 stated that

> Schools need to be improved in management process and activities / teaching and learning process. Schools also need to be improved in terms of the buildings, facilities and educational aids. (PL2)

In support of this argument, both PL3 and PL4 agreed about the lack of facilities and stated:

> The school is not fully equipped, and some teachers may not be fully qualified. (PL3)

> There are many areas in which schools need to improve: Classes should be equipped appropriately with new technology. (PL4)

In support of this, the need to fund suitable measurement and evaluation when applying TQM is a key component because being able to measure its success is an absolute necessity. However, although it is difficult to identify one universally accepted measure for all educational institutions, measurement and evaluation are almost impossible without clearly defined performance measures (Bayraker, 2006: 556).

The researcher noted that there was unequal support from the MOE for facilities in schools. Some had full support with all the facilities and new technology that could help them practice TQM, but others did not get it, which blocked their ability to practice TQM and school improvement. This unequal support and funding from DOE seems linked partly to the relationship between principals and the DOE. The researcher's own notes stated that:

> Building relationship can ease some process in school, as the case with PE1 when contacted the supervisor in ED and ask him to hurry in getting some teaching aids and equipment for school then I surprisingly ask him it seems that you do not suffer from bureaucratic process he answered with laughing face no we get enough support. (Researcher's notes, School 1).

Some schools had no difficulty in acquiring the latest resources and technology. PE2, for example, replied to my question:

> "No, not at all" he said "Our school is a leading one and delegations of officials visit us frequently. So we do not have any difficulties or have to follow any bureaucratic procedures to get what our school needs from the Department of Education. (Researcher's notes, School 2)

However, too many other schools (both early TQM adopters and later responders) confirmed a shortage of facilities, and limited support from the DOE. Therefore, providing schools with learning resources and activities and updating schools with modern technology helps teachers and students to achieve better learning outcomes.

4. *The Absence of Teamwork and Cooperation*

Team work is considered to be an important component of cooperation in Islamic religion, as some verses of the Quran clearly state:

> And cooperate on righteousness and piety, and do not cooperate in sin and transgression [Almaeedah/2]

Moreover, the literature expresses the need to apply teamwork to any processes and procedures oriented towards achieving high quality implementation of TQM. Some of this literature has examined the views of different professionals and practitioners on TQM; there are more than 90 papers that reflect on TQM in education covering Europe, North America, Australia, China and the UK, most of which stress the importance of team work to guarantee quality performance and best practice in implementing TQM in education (Sindwani and Singh, 2010).

The following illustration of the need for teamwork during implementation of TQM was offered by PE2:

> An important thing in schools is that all decisions should not be taken by just one person. Programmes should be put in place that focus on teamwork, that encourage the formation of small working groups, and as a leader I should delegate my power to a deputy head teacher where possible or to an advising educational group. Decisions for the school should be as inclusive as possible to make all the teachers feel they are involved and this way they become more emotionally connected to the goals. (PE2)

Another perspective was mentioned by PE5:

> There are key elements for quality application, including, in my opinion, effective management and action systems within schools, hard work, teamwork, and so on. (Researcher's notes, School 5).

It seems that team-working and group empowerment play an effective role in many organisations or educational institutions because they are made up of smaller, competitive, more adaptable, independent, parallel problem-solving and information-sharing, relatively self-sufficient subunits (Dean and Susman,1989).

Team-working and cooperation is very important, both in and out of school, and may contribute positively to best practice in applying TQM, as cooperation between principals

and the DOE will resolve the mis-interpretation of any form of practice. This kind of cooperation will tackle and find solutions to overcome any hindrance that might affect negatively the adoption of TQM. The researcher believed by the end, that we are social beings, and that central aspects of learning or readjusting knowledge in matters of competence with respect to values and beliefs in any society are supported by sociocultural theory. However, some criticisms have been raised about how to analyse the culturally constructed nature of the mind without losing the aspect of individual mental functioning (Hatano, G. and Wertsch, J. V., 2001). In support of this view, PE1 stressed the importance of team work by saying:

> There are many factors that help to improve the current educational situation including teachers' and principal' training and skills-upgrading, excluding unqualified teachers, providing schools with their essential and basic needs, giving them the required level of support, creating teamwork inside and outside schools, intensive workshops for evaluating the current situation, and so on (Researcher's notes, School 1 non TQM)

Another participant remarked:

> There are many factors, including teachers, ………. developing new application systems with the participation of headmasters, encouraging teamwork in schools, and at Department of Education, and Ministry of Education level, and so on" (Researcher's notes, School 3 later responders to TQM).

The researcher's notes indicated that non-qualified professional personnel might hinder the process and procedures of some components of TQM power, as the following statement from PL2 shows:

> My observations included a lack of cooperation, and an absence of both teamwork and a positive and motivational environment within this school. I also observed that the headmaster was not effective; nor was he aware of management strategies or principles, because he depended on his assistant

principal, who was very experienced in management" (Researcher's notes, School 2 later responders to TQM).

This indicates that the DOE might have nominated a principal without the qualifications or experience to be a leader. The DOE should appoint well qualified leaders to guarantee cooperation and development amongst all stakeholders to achieve the aims of the institution in terms of the better performance of Saudi schools.

5. *Transformation of Organisational Culture.*

Organisational culture is considered a critical issue in academic research and education and organisation theory as well as management practice. In most contemporary organisations, corporate culture commands lots of attention and is seen as crucial. In addition, organisation culture has been described as a management tool (Trice and Beyer, 1993), since in this respect leaders have a lot of influence on the organisation. This links leaders' individual differences with organisational characteristics and success. Here the researcher would like to confess there is a link between culture and individual behaviour in the implementation of TQM. The researcher viewed culture as a significant component in the application of TQM, although its impact is complex and the extent of its impact on the daily practice of TQM can be hard to comprehend. Awareness of, and interest in, organisational culture varies between managers and institutions, because it is often difficult to attain a high level of cultural awareness to guide action. Therefore, the researcher suggests that we should make use of organisational culture to motivate employees and lead them to insightful interpretations of organisations, management and working life. (Alvesson, M., 2012). This motivation aims to contribute to a more effective application of TQM in their educational institutions. As PL5 stated:

> I think it is very important for a principal to interact with and motivate his staff, share the decision-making process with them and take their opinions into consideration to achieve the required level of success in their school. Researcher's notes, School 5 later responders to TQM).

However, it is easy to preach culture as the principle means to corporate effectiveness, growth and success, but difficult to establish a clear link between culture and the organisation. The researcher therefore suggests the need for research that covers the influence of organisational culture on the implementation of TQM in Saudi Schools. However, the researcher believes that the nature of organisational culture might influence any form of cooperation and management within the same institution, and that leaders' knowledge of the components and elements of culture will help them find solutions or solve problems linked to cultural organisation (Giberson, 2009).

This was outside the scope of the current research, but the need for investigation of the elements and components of culture and organisation became obvious during the data collection and observation in schools.

In addition, Enz 1998 stated "top managers usually aim to pass on their values to employees as means of shaping behaviour and directing the firm".

6. *The Bureaucratic System of Management and Administration.*

The bureaucratic system constitutes another challenge to the adoption of TQM in Saudi Arabian schools. This is an additional constraining force that sidetracks the implementation of TQM to various degrees. The bureaucratic system seems to be a central component in the relationship with, and adoption of, TQM in Saudi Arabia at both local

level and at the level of management (the MOE) (Alruwaili, 2013). PE5 and PL1 both

expressed this perspective:

> In school, we need to reform the classes (teaching methods and curriculum). Outside school, we need to change the way the Directorate of Education works (currently a bureaucratic system to give school more autonomy and rights to manage the affairs of their own school. (PE5)

> As a leader I hope there is improvement in every process in school, but sometimes we face limitations in devices and the bureaucratic process, which means we have to keep going back to the Directorate of Education to implement things. (PL1)

Furthermore, the impact of centralization extended to include bureaucratic decision-

making at every layer of management, leading to slow procedures, and delayed processes

for easy decisions, resulting in additional work delays, which the researcher refers to as a

learning outcome of Saudi education system. In support of this point, (Alruwaili, 2013)

mentioned that in the eastern directorate centralization was related much more to the macro

level (the MOE). The ministry had much more influence on their progress, development,

and improvement and centralised management affected their daily working practice. This

led to some challenges and barriers to implementing TQM practices in schools. One of the

participants, PE5, diagnosed the problem by saying:

> Bureaucracy is the main challenge blocking the process of development. Therefore, we have to overcome this phenomenon within the educational system, from the ministry of education to the school, because the current situation does not support or encourage creativity or innovation. Furthermore, schools cannot be independent because the educational system is a hierarchy, so the principal cannot be creative because he has to follow instructions, even if the instructions oppose the practical educational situation. (Researcher's notes, School 5 later responders)

This exactly matched Deming's principle number 8, which stated that breaking down barriers is a necessity that should be undertaken in consideration of TQM practice.

In conclusion, the researcher would like to mention other components which may influence (directly and indirectly) the implementation of TQM within educational institutions. These include vision, measurement and evaluation, central processes and improvement, program design, employee involvement, rewards and motivations and corruption and multi-practice.

Research Question 3: How is school improvement currently being conceptualized and pursued?

It seemed that participants had different views and perspectives on school improvement, as stated in the findings chapter. Some believed that leadership roles in schools, strategic planning, improving and updating the curriculum, implementing technology, student achievement, learning activities, and finally "vision 2030" are the foundation for reform of the educational system and bringing about improvements, for a better life for the community. The following section will highlight some school leaders' ideas for improvement.

1. The Leadership Role in Schools

PE1 offered a critical perspective on school improvement. He highlighted the importance of skilled leadership, but admitted that the training programme is not adequate in its existing form. He hoped that the MOE would enhance the training programme and focus on distributed forms of leadership. PE4 believed that school improvement started with school leadership "The leaders of a school need to be well trained" including in some issues related to the qualities of a good subject leader and good practice, with exercises to avoid some of the barriers and challenges that prevent the implantation of successful leadership form. (Hammersley-fletcher, L. and Brundrett, M., 2005)

However, schools in Saudi Arabia are part of a top-down hierarchy which makes it difficult for most principals to be autonomous and take independent decisions that would bring about improvement. This view was expressed by PE5

> Schools cannot be independent because the educational system is a hierarchy, so the principal cannot be creative because he has to follow instructions, even if the instructions oppose the practical educational situation. (Researchers' notes, School 5 TQM adopters)

Some theorists in the area of motivation and human behaviour tend to believe that most need structures are virtually universal among individuals (Ali, A. and Al-Shakhis, M ,1987). Current thinking, however, asserts that the concept of needs is culturally bound and each society develops its own hierarchy (Badaww, 1980).

The three points above are all related to leadership models. They reveal that there is an existing problem with most Saudi schools which involves teachers' weakness, the absence of discussion and the collaboration of leaders to achieve school development. The researcher concluded that everyone has a responsibility to contribute and should demonstrate willingness to develop leadership skills. The researcher also believed that some missing information and lack of awareness of development needs to be communicated to both principals and staff, in respect of how to celebrate their achievement and goals when it comes to actually adopting leadership styles.

The researcher asked PE4 about his leadership style:

> You said at the meeting that you adopt distributed leadership and you allocate tasks fairly, so when you do this, do you think you give them power and discretion?

He answered,

> I allocate tasks, but I do not stop supervising them, and I give them just some power, not all power, as I am responsible to the Ministry if there is any problem. (Researcher's note, School 4 later responders to TQM).

The researcher found that leadership styles practiced within the case study were mostly traditional, collaborative or autocratic. This may be related to the hierarchical system and appears to be a part of Saudi culture, even though some remarkable efforts related to human resources styles in the practice of some in the educational institutions have arrived in the Saudi public sector. Consequently, the Saudi government has made a considerable effort in the hope of developing the educational system through what is known as the Tatweer project. Indeed, the quality of any organisational leadership is a considerable source of power for achieving school development through leadership, a perspective similar to that of AlZefeiti, and Mohamad, (2015) which was in line with Deming's principle 14.

2. *Strategic Planning.*

Principals' responses to the question of how they conceptualised and pursued school improvement confirmed that we now live in an era where everything happens very quickly, which brings about an uncertain future. Therefore, the existence of both individuals and organizations depends on their ability to adapt quickly and keep up with such rapid change, which especially reinforced Deming's principle 4, in the face of technology that brings instantaneous change. Therefore, strategic planning is needed for any educational institution, to bring about an effective period of transition. Strategic planning for any educational system sets clear goals for all employees in the institution. Fidler and Edwards (1996) believes that this process should be one of creating and choosing a particular strategy to respond to future activity and planning how to implement it. In support of this, PE2 stated that school improvement is a lifelong process which did not stop when one set of goals has been achieved:

> Any association or school needs to continue to improve, because if you work to a set goal and achieve it and then do not look for further improvement, you will be left behind as the rest of the environment around you, (e.g) technical, social and communications systems continue to improve and progress. If you have a programme, which does not bring about improvement or is static, you need to change that to a strategically more effective one. (PE2)

Generally, the researcher argues that strategic planning can be effectively implemented in educational institutions to a great extent and this can happen when considering carefully all components, as the literature review revealed. In addition, any activity or work to bring about the process and practice of adopting strategic planning in the sector of education maybe hard to achieve. In order to implement strategic planning in an educational system, many ideas, decisions, directions, goals need to be followed. PE2 believed that

> All education processes in schools need to be improved. First, a strategic plan needs to be put in place, which captures 3 things. Vision, Mission and Goal. The goal should be aligned to the main goal of the Ministry of Education. How do you get improvement? By putting in place well planned programmes, which start when the academic year does. Devise a plan – at the end of the year see if targets are achieved. Look at areas where improvement is made, but also where weaknesses are highlighted. Look to correct the weaknesses in the following years, and plan through appropriate strategy. (PE2)

Using the same evaluation, literature and criticism raised by the participants, the researcher suggests that some of the MOE's characteristics and priorities should consider the need for a new strategic plan to better serve the vision of 2030. For example, the MOE should strive for more effective communication with school leaders, consider allowing feedback, and select well-educated leaders. School effectiveness and improvement are an area to which particular attention should be given. This vision would meet the goal of the UNSCO 1997 Report.

3. Implementation of Technology

Most participants conveyed parallel responses in relation to how school improvements are conceptualised and pursued, which stressed the need to employ the latest teaching technology to bring about school improvement. Digital Technologies are now an integral part of most educational institutions around the globe and aim to enhance learning and teaching. Comments on using technology to enhance student achievement were common. For example, according to PE5, improvement encompassed different aspects of school such as *"management affairs, teaching, learning in school and preparing and equipping the class"*. He also stated that:

> Without the improvement of the school we will be left behind, because there are changes and advancement made in life every day. The improvement process should begin by improving the leadership in schools, and by giving the leaders more chance and power to make direct changes. For class teaching, classes need to be equipped with the latest educational aids such as data show, smart board etc. Teaching methods also need to be improved to help achieve overall goals. (PE5)

Although particular attention has been given to the implementation of technology for school improvement and enhancing learning outcomes, there is also a need to think deeply about how institutions put in place practices that are useful in shaping classroom activities to develop better learning outcomes. In addition to technical issues mentioned by principals, in particular those related to the form digital technology should take, and how institutional culture and ideas about curriculum and assessment should be utilised. Most principals cited their reasons for importing and using digital technology as its uses in relation to students' studies. For example, some comments referred to organising and managing the logistics of studying, flexibilities in terms of location, time saving, communicating and collaborating

and finally cost saving. As we said earlier, many of these responses linked the use of digital technology in educational institutions to helping students retrieve books on part of the curriculum or submit an assignment or task. However, many principals mentioned the shortage of facilities in these schools. The researcher himself noted this. In addition, the researcher believes that digital technology may contribute positively to teaching and improving the quality of learning, as some of the literature from across the world confirms. For example, the use of lecture capture, which is in daily use in some universities in the UK, would enable students unable to attend lectures on campus to go online (Henderson, M.et al., 2017).

Furthermore, from the researcher's observation of schools in the study, and daily experience in the UK, it can be seen that some schools have developed ways to implement technology for assessment, parental participation, and after school activities. Finally, the researcher argues that the implementation of digital technology in any learning environment may help students discuss, communicate, practice and build experience of learning in an online classroom environment. This could help them visualise some tasks, activities and ideas or even search for information to undertake creative collaborations. Implementing these digital technologies in schools in Saudi Arabia could help to bring about better communication among principals, teachers, students, parents, and create a whole-community learning environment.

4. *Improve and Update Curricula*

Another important aspect of the way participants conceptualised and pursed school improvement concerns the curriculum. This is underpinned by probably the biggest question of curriculum pedagogy and design: who is the curriculum for and why do we have it? These

questions require us to reflect on the nature of knowledge – how we define it or what is considered to be knowledge? How should we construct and create educational curricula and what are they for? Who has the power in society to decide which, or even what should be included in a body of knowledge? There is still much debate and argument among practitioners and theorists. Another aspect, related to the components of the curriculum, refers to cultural differences between homes and schools, and their implications for curriculums, pedagogy and learning. These are all major questions that have significant importance for the curriculum and its conceptualization, practice and dynamics. Some of it appeared through curricula that inherent from educational institutions, a society and parental knowledge. The dynamic role of any curriculum will probably be influenced by some characteristics of previous or existing curricula, which in some cases forces teachers to think of themselves as technicians who only relay lessons, plans and learning outcomes and test and evaluate their students' curiosity from curriculum development and enactment (Joseph, P.B., 2011).

Another perspective related to multiple curricula is perhaps related to some discussion about which curriculum schools do or do not teach. Turning back to the perspectives and principles according to which schools are conceptualised, they suggested that the framework of the curriculum should be revisited and updated - from subject matter to learners' need and demands, taking into consideration teacher feedback to better suit the social context of Saudi society, as mentioned by PE3 and PL2:

> We also need to improve the curriculum, but we don't have access to this, as this is done by the Ministry of Education. I think schools should be able to share in the vision of the future, and in improving the curriculum. (PE3)

> One of the aims of this vision is for the school, society, and curriculum to help reach international standards. So we need to adopt new technology, improve our management, measure the performance, educate our students, raise / improve their level and continue to train teachers for a brighter future. (PL2)

However, most participants think conceptualising the curriculum should consider all aspects related to creation, stage of design, form of delivery and process and practice, and finally stage evaluation and assessment.

5. Students 'Learning Environment and Achievement.

The researcher believes that the final goal for all process and procedures in the application of TQM in any educational institution including Saudi's one is "student achievement". As the findings chapter indicated, and some sections of the literature review reveal, the goal of any TQM activities must consider student achievement as one of the main goals, and what we do - from assessing and evaluating the learning environment to teacher training and development - should be done as steps toward successfully reaching that goal. Feedback from teachers and principals as participants clearly stress the importance of student achievement, and some steps have been taken to pursue TQM in schools as a result. For example, PE1 and PE2 both tried to present all students' activities and results on charts every year. Other late responding schools try to use available facilities and equipment to achieve the target set by management despite the lack of support from the DOE.

An additional perspective on the pursuit of student achievement was mentioned by PE1, who stated that

> We are working toward international standards. Our pupils now participate in international exams in TMISS Exam board. (PE1)

Other feedback reflected on the importance of student achievement via measurement of the academic content acquired by students in a specific amount of time at each level or grade that brings them to closer to the learning goals. We may also monitor the standards already set by educators, monitoring and evaluating the goals already set and showing how well this academic institution is doing as a step to obtain life skills and giving some sensational feedback to their community.

Participants clearly enunciated the need for students to be active learners who discuss questions and manipulate the knowledge they receive in class. This should be connected with other knowledge they receive from the local community to improve the results and quality of learning. Some participants mentioned the need to raise the school effectiveness, which they compared to the advanced international educational systems of other countries such as Singapore and Scandinavian countries. Some researchers and educators, such as Barber and Mourshed (2007) link discussion of student achievement to the quality of the teachers. They state that " the available evidence suggests that the main driver of the variation in student learning at school is the quality of the teacher".

To conclude, we may argue that although the students' learning journey depends heavily on the quality of their teachers, some other issues play a critical role in bringing better achievement of learning outcomes, including the learning environment, the quality of management, the availability of facilities and resources, the curriculum and so on.

6. Vision 2030 in Education

The vision of 2030, recently announced by the government, is built around three themes; a vibrant society, a thriving economy, and an ambitious nation (Saudi Vision,2030, 2017). The pillars of 2030 vision touch all aspects of life within the Kingdom of Saudi

Arabia, and aim to transform the Kingdom into a global investment powerhouse. This unique strategy (the vision) aims to invest in the country's human resources and natural resources. Allocative determination has been stated by King Salman and Crown prince Mohammed bin Salman which focuses on the future of the Kingdom of Saudi Arabia. Determination is trying to enforce the diversity and capacity of the Saudi economy, making it stronger and tackling the challenge by creating global investment which can compete with international standards. This study of development aims to expand and improve the quality of services, reduce delays and cut tedious bureaucracies. One objective of the vision is to build a thriving country in which all citizens can fulfil their dreams, hopes and ambitious. It requires a commitment from Saudi society to work hard to achieve world class government services, which effectively and efficiently meet citizens' needs. Vision 2030 also provides better opportunities for partnership with private sectors through the three pillars, the position of Saudi society and the strategic geographical location. As announced by the crown prince Mohammed bin Salman, Saudi Arabia's vision of 2030 will begin immediately, delivering the overreaching plans and programs which we have set out. But as stated above, the vision 2030 journey requires some further steps to be taken toward better future. In addition, this transformative program has been created in all cabinet ministries including the Ministry of Education to ensure that all Saudi cabinet ministries have a strategic plan and prepare programs that launch some activities within each ministry, and create a group of executives who will lead the change and bring significant impact to the implementation of 2030. This includes, but is not limited to the following: cooperation in public investment, human capital programs, national transformation programs, strengthening the public sector, cooperating with the private sector and creating strategic partnership programs, reassessing investment regulations and creating performance measurement programs. All the programs set out by

vision 2030 require the creation of techniques, monitoring and measurement tools that suit Saudi society. This should be done with the guidance of the Ministry of Education, and will contribute to filling the gap between the output of higher education and the requirements of the job market. That it matches some components of TQM has been mentioned in the vision, although a careful plan and training is desperately needed to achieve this goal, to facilitate and sustain a transition period in society, more attention is needed from researchers, educationalists, policymakers, etc. This will require the preparation of a modern curriculum which focuses on rigorous standards in literacy and numeracy skills, and character development. Of course, there is a sophisticated range of education outcomes which might show year-on-year improvement, guaranteeing new skills and professional development in the job specification of every education field. The MOE has stated seven aims to meet the requirements of vision 2030. Those aims can be summarised in the following;

- To harmonise the outputs of the education system to meet market needs;
- To provide sufficient knowledge and skills for learners;
- To consolidate of Arabic and Islamic values within society;
- To prepare new advanced curricula;
- To create a positive learning environment;
- To take into consideration disabled learners and ensure their dependence and integration into society
- To focus scholarship opportunities on areas that serve the national economy and prestigious discipline (MOE, 2019, Vision 2030)

Although the MOE has set out the above aims to achieve 2030 vision in the education sector, the researcher noted that there are other components which can help to provide a clear

idea of how TQM can function better in Saudi Arabia, such as leadership roles and management, strategic planning, privatisation and investment in the education system. Most of the feedback received from participants has reinforced the findings from the literature that most Saudi schools need to work hard and restructure existing educational practice of applying TQM in educational sector. In support of this argument, PE3 remarked:

> We will achieve better results at a lower cost, which is part of the vision. We will also achieve a degree of effectiveness in the school, which is also part of the vision, in terms of improving schools. (PE3)

Another voice, critical of the MOE for not providing a clear plan or form of practice, was that of PE5:

> Schools should share in building and establishing plans. There are many experts in school and the Ministry of Education should obtain their views rather than just using another community/ school as an example to base all policy, as each school is different in relation to local community, student ability, finance etc. (PE5)

Although the MOE has listed some of the barriers and challenges (such as the low level of the curriculum, its weakness, less qualified teachers, traditional teaching methods, a shortage of facilities, and weakness in critical learning activities), the researcher would like to raise other critical issues regarding the operational vision that have not been taken into account for putting the vision of 2030 into practice. These include the absence of strategic planning, distributed leadership and good management, overcoming bureaucracy, developing new application systems with the participation of headmasters, measurement and evaluation, encouraging teamworking at all levels and so on (see note taking for further detail).

Finally, although most participants hoped that 'vision 2030' would tackle the majority of problems in the educational sector, the researcher noted during his visits and observation that most schools had no operational plan in action to make the most of existing practice and share their vision with school leaders and educationalists, and that a strategic plan for international standardisation that would include all learners (including disabled learners) in Saudi society, was missing.

Summary of the Discussion Chapter

In concluding this chapter, it is crucial to provide an overview of the researcher's logic and structure as he explored the concept of TQM among school leaders and teachers to uncover their understanding of TQM practices and whether this comes from their different perspectives, backgrounds and professionalism. This was an attempt to respond to research question number one in this study. After this attempt to gain insight into participants' existing concepts of TQM, the researcher went on to test the early practice of TQM that was a response to the King Abdullah's call for, and the MOE's circulated request, to implement TQM in each sector including education. The reason for exploring the early practice of TQM in Saudi Arabian schools was to offer a basic background of the pros and cons of early implementation of TQM as a step to better progress towards school improvement. This helped to create a view about early practice and how it has been effected, depending on the adoption of theoretical and practical frameworks from different cultures. From both a theoretical and practical angle, the early practice of TQM has given the researcher a hint of how some principals interpret it in their day-to-day practice in schools.

These early endeavours provide an account of some of the barriers and challenges associated with the earlier practice of TQM in Saudi Arabia as well as a view of how

participants have tackled the challenges and barriers in their daily practice. This is a response to the second research question. All of the above is summarised in brief in the diagram below, which provides the most effective elements and components linked to each of the main factors reflecting the three thematic analyses:

Figure 16 . Existing TQM cultural practices in the study sample. (Summarising the findings from the research project) (See overleaf)

Systematic Operation

TQM Definitions

Structure and Rules

Efficiency and Productivity

Documentation

Student achievement; as an indicator of TQM practices

TQM Implementation

Systematic operation as a sign of TQM

Improving social life as a sign of TQM

Creating an effective school when applying TQM

The role of instruction and guidance from the MOE

The challenges and barriers to applying TQM in SA schools

Training and development of principals and teachers

Shortage of facilities in schools

Absence of teamwork and cooperation

Transformation of organisational culture

Bureaucratic system of management and administration

The preceding discussion and argument has led the researcher to conceive of some future developments that would offer a guiding framework to how best practice in school improvement can be achieved in Saudi Arabian schools, taking into consideration aspects that have been achieved so far from the literature review and the aims of this research project. This has all contributed to the need to develop a form of practice appropriate for Saudi society that can contribute to the educational sector in the light of vision 2030, and to add a new dimension or some new ideas that can be developed and improved, as lessons from conducting this research project.

The diagram below prescribes the most important elements raised by school leaders relating to the conceptualisation and pursuit of school improvement in Saudi Arabian schools.

Figure 17: The conceptualisation and pursuit of school improvement in Saudi Arabian schools for future development.
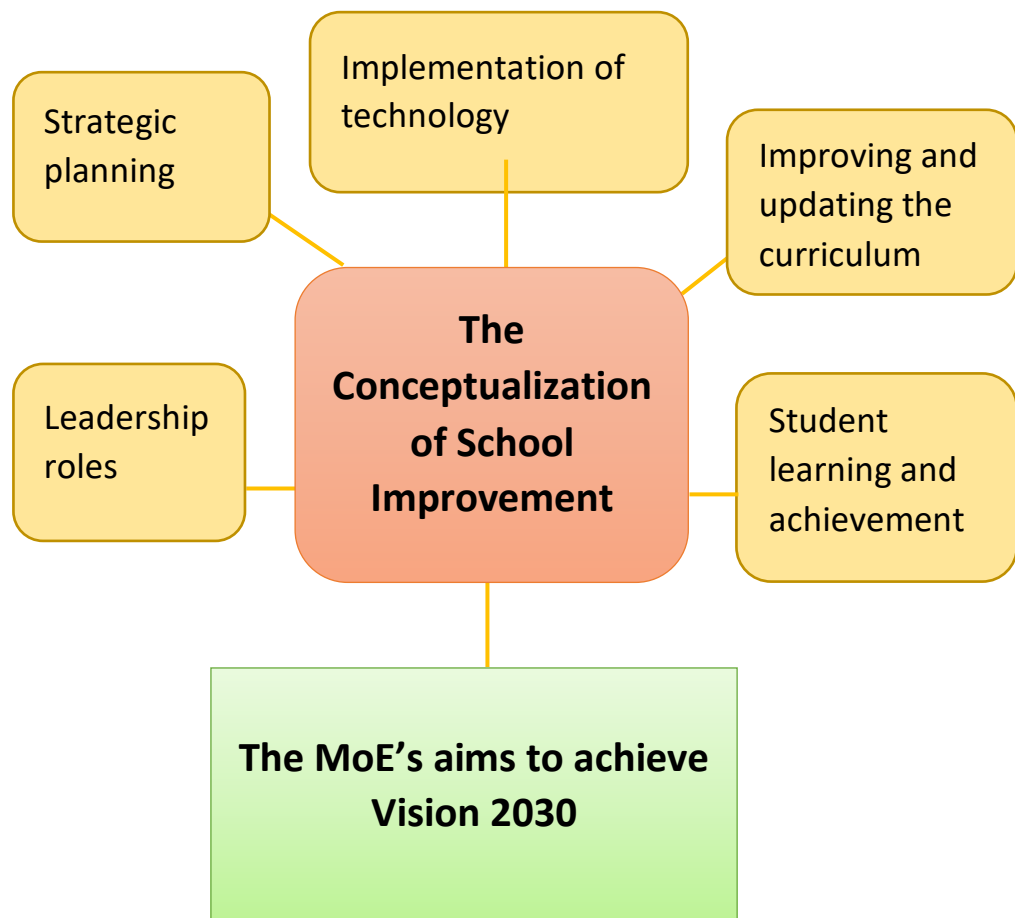
Finally, the above discussion has helped the researcher identify the ways that principals and teachers have approached TQM implementation and how these early practices have helped in shaping some of the pros and cons of their early practice. This gives us further

insight into what might be done by the MOE to help meet the aspirations of the vision 2030

strategy, and highlighted some possibilities for further research on the subject.

CHAPTER SIX: SUMMARY AND RECOMMENDATIONS

Introduction

In this concluding summary, I propose to review what has been set out in the preceding chapters and to produce recommendations pertinent to the research that are intended to provide local perspectives on the implementation of TQM in some schools of the Saudi Arabia. The aim is to provide a picture of the early endeavours and existing practices of TQM in the selected sample.

The literature review identified ample evidence of the extensive nature of the influence of TQM as a phenomenon in many nations, discussed some influential written material on the subject (TQM) and acknowledged the existing practice of applying TQM in some Saudi schools. The thesis has proceeded assess TQMs contribution to school improvement by highlighting examples of Saudi schools that have early adopted TQM and some that have delayed the TQM practices. The study has also reinforced the debates among academics and researchers about the potential of TQM to make a positive contribution to the education sector, in spite of having its roots, creation and development in the US business sector. This debate about the capability of TQM to bring school improvement and make a positive contribution to the education sector particularly in in different national contexts is still ongoing among researchers.

The findings of the fieldwork afforded by the qualitative approach provided helpful detail regarding the adoption and application of TQM processes. (questionnaire and interviews). The findings and results of the questionnaire were used as a base to inform the

interview questions. The outcomes from semi-structured interviews and the researcher's notetaking were used to provide a deeper appreciation of the school principals' perspectives on school improvement processes.

Chapter 5 analysed the findings according to the three key research questions s: the level of understanding of TQM among principals and teachers in Saudi Arabia; the conceptualisation and pursuit of school improvement; and the challenges and barriers to supporting school improvement through the adoption of TQM in Saudi Arabia. In the final chapter will revisit each of the three research questions in turn and of presenting an overview of the data from both TQM adopting and later responders to TQM in schools. Early adopting TQM participants continue to be referred to as PE, later responders to TQM practices are labelled PL.

Reviewing the Questions

Section 1. asks How is TQM interpreted in the sample? Section 2 addresses research question 2. What are the challenges and barriers to supporting school improvement through TQM; and section 3 discusses the question: How is school improvement being conceptualised and pursued?

The discussion chapter concluded by offering an overview of the participants interpretations of the issues with regard to managing the process of quality improvement in schools, which helped to create and develop the diagram (figure number) in the discussion chapter. The study also helped create an overview of the subject under investigation and diagnosed the everyday process and practice of TQM implementation in some schools in Saudi Arabia. In addition, it supported attempts at measurement of the extent to which these

early practices of TQM have moved closer to internationalised views of quality management and emphasised some components that might help any future development of   school improvement implementation in the Saudi context.

The study arrived at a perspective that can be summarised in the following thematic that presented participants' interpretations of TQM and the systematic operation of all process and procedures involved in its adoption. Another dimension related to differences, challenges and barriers in the way TQM practices have been applied to the selected sample. Some of those differences were expressed by employees as   the practical action of documenting tasks in the school environment, while others took a broad view that presented TQM as the systematic operation of all processes that led to the achievement of the school's goals by the end of the academic year. Others viewed the implementation of TQM through improving social life as a sign of its implementation and finally some have necessitated creating a positive atmosphere in applying TQM practice in Saudi Arabian schools.

The Study's Contribution

As stated earlier, the aim of this study was to explore the current practice of TQM recommended in Saudi schools. It has made several valuable contributions to knowledge and added value to the researcher's own learning journey, which will be reflected below in the section on personal development progression (PDP). This research is a comparatively new development of a qualitative cultural study on the adoption of TQM practices to achieve school improvements in Saudi. The development of new insights into the implementation of policy is informed by the application of the qualitative approach to exploring the nature of human interpretation of the TQM policy and its implementation in practice. It has revealed some valuable insights into the early practices of adopting TQM in the sample of Saudi

schools and explained some interpretations observed from the study's sample on various thematic and elements that school leaders interpreted as comprising TQM and therefore the challenges and barriers to supporting further school improvements should be taken into accounts such as :

- The demographic location of each school.

- The cooperation from the local community.

- The level of education and professionalism that school leaders achieved.

- The availability of fund and support from MOE.

- The need for training and HR development.

- Seeking for advice from International perspectives

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The study also contributes to a wider body of written material (Alrwaili. 2012) (Aleisa,2009) relating to the exploration of TQM and its adoption in some Saudi schools in the light of similar experience in the Arab societies. Culturally, it seems Arab societies share some features of character even though, this does not limit the coverage of the literature around the globe of which it appears have helped to bridge the knowledge gap in the region. In addition, the current study has developed some views about the nature of argument and interaction between academics on the subject.

The overall contribution to the debate amongst academics, researchers, educationalists about the suitability of adopting TQM in the educational sector, has focussed on the adoption and relevance of Deming's model in developing a framework for reviewing the management of educational change.

The adoption of a qualitative methodology in this study has presented and uncovered weaknesses in previous research done by Saudi researchers who relied on a more quantitative approach as the main data collection tool. This research has adopted a qualitative approach which gives a more detailed of understanding of the phenomenon under investigation through the adoption of interviews, observation and note taking which seems to suit Saudi culture better than a quantitative approach because it exposes subtle differences in understanding why some principals had adopted or not adopted different TQM practices.

The adoption of a qualitative methodology was indicates the value of a qualitative approach to cultural issues and the education profession, as it highlights cultural constrains within Saudi society including some resistance to 'foreign' ideas. This could be very helpful in any further development of the subject. Additionally, the study was a considered as a test balloon to learn some of the characteristics and factors that affect the adoption of TQM negatively and positively.

Finally, the study demonstrated different views and perspectives on the directions for school improvement, as stated in the findings and discussion chapters. For example, some consider the importance of leadership and leadership styles in schools in bringing development to the Saudi context. Furthermore, it also expressed the necessity of training and learning development for teachers and principals who are in charge of leading Saudi educational institutions. In addition, the study highlighted the significance of strategic planning, the need to update curricula, the importance of implementing and providing new technology to help students achieve better. The study also shed light on the hope of achieving development across society generally and in education particularly by putting into practice the aims of the 2030 vision.

Limitations of the Study

As with any research there were also limiting issues to take into account. The first was the limitation of time, which the researcher trusts has not decreased the quality of the outcomes from this research although it added a level of pressure. Another limitation was that it did not include the viewpoint of some stakeholders, in particular parental feedback which might have been useful, but on reflection, the researcher decided to omit it as the aims of the study focused more on principals' feedback. Another limitation was the difficulty experienced in travelling between countries, the Kingdom of Saudi, and the United Kingdom. Moreover, other small issues such as the translation of material from Arabic into English have taken too much time. Another limitation of this study is linked to sampling. Selecting a sample from one district was not satisfactory by the researcher , but applying the conventions of a qualitative research approach in this study generally and the case study particularly tolerated the logic sampling and findings of this study. Further limitations are linked to small number of conferences attended, as the researcher believes they are very significant for the study, but it was not possible to attend many because of the high fees, and due to family commitments.

Having reviewed the nature of the research topic (TQM) and the methods used to address it, it is now essential to outline the conclusions reached. I intend to do this with reference to a series of individual points.

Suggestions for Future Research

The research outcomes uncovered two areas where suggestions have been made. These are mainly: 1) additional research that might profitably be undertaken on the subject; and 2a) in respect of experiencing the implementation of TQM in some Saudi schools, 2b)

recommendations for the administration of Directorate of Education, and 2c) concerning the Ministry of Education in Saudi Arabia.

The first section suggestions are for different areas of research that may be considered beneficial in the future:

1. Create and fund a research group that looks at evaluating the early practices of applying TQM in Saudi schools as a step to any future development on the subject by assessing its current adoption.

2. A comparative study of school improvement in education in the Arab and western contexts, which would distinguish between the two perspectives involved and reveal the disadvantages and the strengths of each.

3. An assessment of the benefits and risks of applying TQM in a different culture, to discover how local cultures might influence understanding the subject and the acceptance of new ideas.

4. An investigation of leading school improvements on a Saudi-wide scale on existing TQM adoption, and how the voices of all stakeholders including principals can be represented more effectively in the future.

5. An assessment of procedural and guide-books published and circulated by the Ministry of Education to discover whether these publications offer clear guidance and direction to people in charge of the directorate and schools.

6. A study of how best to involve the private and public spheres in a debate about leading school improvement in order to determine what improvements could be made to the present form of such practice.

7. Most importantly, more studies should be undertaken to establish how to adopt a 'vision for future 'that matches the 2030 vision, taking into consideration the challenges and barriers of which part of it revealed in this study.

General Recommendations

This part contains recommendations for people a) working for the MoE; b) in charge of the Directorate of Education; and c) in charge of leading school improvements.

a) Recommendations for The Ministry of Education:

The findings of the study have made it clear that the MoE should consider evaluating the existing form of TQM in Saudi schools and developing strategies towards school improvement by doing the following:

1. There is an urgent need for more country-wide empirical research, to assess existing TQM practice and evaluate its aims and objectives to determine how it might be improved so a significant achievement can be reached.

2. The 'content' of the procedural and organisational guides should be re-assessed to include as wide an output as possible, taking into account some early practice from similar Arabic cultural backgrounds.

3. Continuing improvement in overall quality management, giving some flexibility to the directorate of education to measure and monitor the daily process and practices of adopting TQM, which requires a degree of skills and professionalism.

4. The Ministry of Education should find a way of allowing principals and school leaders to express themselves freely, based on their own experience, about their likes and dislikes on things that might hinder the implementation of TQM in their schools.

5. The ministry of education should maintain constant two-way communication from top to bottom and avoid hierarchical style to bring about speedy communication that would help tackle current problems .

6. Implement 'the latest technology' such as electronic e-mail etc., to drive major changes in the way they communicate with the directorate and schools. This will necessitate a major change in the current format of communication. Perhaps most importantly, the new electronic means of communication will allow the directorate and schools to share content and experience across the country.

7. Further research projects based on the findings from this study and others should be documented to empower educational practitioners to develop co-operative networks among themselves for enhancing their own professional development.

b) Recommendations for the Directorate of Education:

The research addressed the relationship and communication between the Directorate and schools in the Saudi Community, and revealed some critical points which those in charge of the Directorate should take into account:

1. The adoption of TQM must be assessed and recognised as one of the newest and most culturally sensitive approaches to school improvement in Saudi schools.

2. The establishment of any form of co-operation between those in charge of the Directorate and those in charge of schools must take into account any initiatives developed globally to get the most beneficial practice for Saudi culture.

3- Devise a means by which parents can contribute to the performance of TQM in Saudi schools and the education service, as well as including parents in the management of

schools similar to the existing form of school "governors" in practice in most UK schools .

3. Run a 'continuous'training programme to allow principal and teachers to learn how best to adopt and make use of TQM and to learn how they can inject their own views into the process, to improve the overall quality of school improvement.

4. Recognise the need for a professional body to assess existing practice in consultation with specialist bodies such as universities, organisations representing the professions, and leading figures in related fields.

5. Play a crucial role in the delivery of all school needs, and be transparent in dealing equally with all schools across the country.

c) Recommendations for School Principals

The subsequent recommendations express some critical views which, the researcher believes, should be discussed immediately before it is too late, and we end up regretting bringing in new ideas that are unsuitable for Saudi society, or which it is not ready to absorb. The recommendations are designed to remove some of the fundamental obstructions to the further development of any form of TQM in Saudi schools. The recommendations include:

1. More extensive research on the current implementation of TQM in schools to develop a better understanding of its components, mainly with reference to obstacles to the circulation of documents from the ministry of education.

2- A longitudinal observational study of existing practices of TQM in schools.This is required in order to determine the contexts in which skills, knowledge, and

understanding develop and how principals and teachers can best help to spread and promote this development.

3- The advice of experienced people is needed, in order to establish a specialist research unit within the school to maintain a close relationship with educationalists, and the directorate authorities responsible for supervising and maintaining all schools within a district

4- Sufficient funding must be made available to all schools to deliver proper training , including creating a broad knowledge base that would help principals represent the highest standard in the field of school improvements. In addition, work is needed to create a policy for both short-term and long-term training and development.

5- Increase the level of autonomy amongst principals and giving them freedom to freely express their awareness and experiences of the prevailing application of TQM in their schools, as this is considered fundamental to feedback.

6- Assess the leadership style currently in use and discover ways of improvement and enhancement. In addition, apply a team working style in all daily activity and administration within schools.

7- Accomplish a way of engaging parents and the local community in the current adoption of TQM in schools, that might subsidise ways of progresses and expansions.

8. Finally collect, reference, and document all studies conducted on the early practice of TQM in Saudi since its beginning in order to provide a valuable resource to stimulate further interest in, and analysis of, the subject to match the vision of 2030.

Professional Development Progression (PDP)

In this section, the researcher would like to reflect on his whole journey through the project, mainly focusing on the learning outcomes of conducting the research, reflecting on his progress and of becoming aware of his strengths and weaknesses, and mapping the way to his personal development. Keeping a record of my increasing skills and knowledge based on all the work undertaken to achieve my goal during this research (from the idea to the initiation, up to writing this conclusion), has encouraged me to view things differently. I consider my *Personal Development Planning* and progression is an on-going, lifelong process. I have made efforts to improve my skills and learning from the stage (1) when I started taking English as second language and planned my research journey to study this subject. Probably, it goes beyond that point when I had an ambition to achieve a PhD qualification in the subject of education. This would not be an easy task without support and guidance from a highly qualified supervision group Dr Martin, Dr Linda and Dr Harriet. Their advice has eased the challenges and fears specifically in the second year when I needed to prove myself in the viva, and get approval to upgrade. Beyond this I have developed my patience and tried to control my fears and anxiety. The whole journey has been surrounded by challenges and experiences and certainly left a footprint in my life mixed with a wide knowledge of another community, which helped me refine my argument, gain confidence and expand my perceptions, which was fruitful by all standards, even though it stole the joy of my life.

Conclusion

The researcher believes that this research has revealed not only the elements but also some of the dominant principles surrounding the implementation of TQM in Saudi schools

in the light of Deming's model. The study has delivered a detailed exploration of the nature of the early practice of TQM implementation as a step toward school improvement. The study has also shed light on some of the challenges and barriers that hindered the adoption of TQM in the selected sample.

The researcher would like to conclude his exploration of this phenomenon with an acknowledgement that studying the implementation of TQM was very challenging due to some complex interrelationships that link culture to other components and factors. It is hoped that the limitations uncovered may be addressed by the suggestions made in the final stage of this project. Most important, perhaps, is the need to open a window onto the potential which this form of adoption has, not merely in respect of its existing forms in Saudi but also as a resource for the whole of the Gulf society.

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APPENDICES

Appendix A: Participants' Mutual Consent Form

Please see overleaf: Code _____

Consent Form for Participants

Project Title:

Leading School Improvement in Saudi Arabia

Investigating Total Quality Management Practices

Having implemented a Pilot Study prior to this data collection process, the researcher duly understands the critical role you play, and the sensitive position you occupy in the public school. As such, on the onset of your participation in the present study, you are hereby guaranteed of full ethical, courteous, and respectful treatment.

You will not be involved in any way and will not participate in this study without your express approval, so secured in the signing this form.

We guarantee that you will be protected in accordance to all ethical requirements of academic research, without being subjected to any bias, victimization, harm, exploitation, insensitivity, or abuse.

By signing this form, I hereby certify that,

I have agreed to participate in this project. I understand the **purpose** of this project and *consent* to the participation. I also grant the researcher the write to **use** the information generated from my participation, subject to my **anonymity**.

And that,

I agree that I will be questioned for this project from the time that the project begins until its completion, subject to my convenience and approval. I am also aware that I will be accorded complete anonymity for my responses and that such responses will only be used for purposes of the present study.

All fields Should Be Completed in Block Letters

Name: ....

Position: [Principal]   /   [Teacher]   (*Please Tick as Appropriate*)

School: ....   **City:** ....

Telephone   number: ....   **Address:**
....

Signature: ....   **Date:** ....

Appendix B: Research Ethics Form

Research Ethics Review Form

The present researcher will be required to observe the highest ethical standards when undertaking the research study. The University requires the students undertaking research to comply with the standard guidelines of research ethics. The checklist below helped the researcher reflect on possible issues of ethical concern arising from the research study.

Working Title

Leading School Improvement in Saudi Arabia

Investigating Total Quality Management Practices

Objectives of the Research Study

The present study will investigate how school leaders and teachers perceive school improvement, from the perspective of the TQM approach in quality improvement. Focusing on the education sector, the study hopes to understand and validate a quality management approach that can help education leaders to develop and implement quality improvement processes suited to the Saudi Arabian secondary schools.

As you participate in the study, the key areas of focus will include to investigate your understanding of the TQM approach, determine whether the implementation of the TQM approach can generate increasing levels of school effectiveness, and thus school improvement in the Saudi Arabian context, and how your participation and or leadership influences the quality improvement process. As such, with your participation, the study will be able to

a) Explore the understanding of the TQM approach among the researched school leaders (principals) and teachers in Saudi Arabian schools
b) Investigate how implementing TQM can lead to school improvement in the Saudi Arabian context from the perspective of school effectiveness
c) Compare how principals' leadership styles, such transformational and distributed leadership, in Saudi Arabian school contexts influenced and interacted with TQM practices

Research Participants

The sample recruited for the research undertaking incorporates 10 participants involved in the day-to-day leadership of public education in Saudi Arabia, within the secondary school level and at urban contexts, as either principals or teachers.

Data Gathering Instrument(s)

The instruments employed by the study for data collection were:
   a) Face-to-Face Interviews
   b) Questionnaires
   c) Secondary data analysis of school records
   d) Note taking

Ethical Parameters

   ✓ Resultant jeopardy of participants   - NO
   ✓ Deception of participants   - NO
   ✓ Financial Inducements   - NO
   ✓ Possible psychological stress   - NO
   ✓ Third party access to confidential information
   ✓ (Avoiding any disclosure that may jeopardise your job security or negatively impact on your professionalism)
       - NO
   ✓ Any other special circumstances   - NO
   ✓ Identification of Participants   - YES   (***Absolute Confidentiality Employed***)

By submitting this Research Ethics Review Form, I am confirming that I have read and understood the University Code of Practice on research involving human participants, and followed all requirements and directions while implementing the study.
Name: _____ _____ _____

Accredited by Supervisor:
Name of Supervisor: _____ _____   **Signature:** _____

Appendix C: Participants' Biographic Information Form

Biographic Information Form for Participants

Part A: Introduction Brief

Leading School Improvement in Saudi Arabia
Investigating Total Quality Management Practices

➢ Thank you for accepting to participate in this study. You are guaranteed of full confidentiality for your participation.

- Nothing you say or write during the study will be linked to or identified by your name, job title or school in the documentation of the study

➢ The information provided in this survey shall be treated confidentially, only for the purposes of this study and shall not be provided to any other third party for any purpose whatsoever.

➢ Nonetheless, for data analysis purposes, exclusively and without breaching confidentiality, the researcher needs you to provide some personal information that will help characterise the recruited sample. As such, kindly provide the information requested hereafter, as accurately as you can.

Part B: Personal Information

Please give us a few details about yourself…

- Name: (Optional) _____

- Gender (*Male or Female*): _____

- Name of School: _____ _____

- Job Title/Position (*Principal or Teacher*): _____

- Highest Academic Certification: (i.e.BA, MA, etc.) - _____

- Professional Training as a Teacher: _____

- Additional Qualifications and Certifications: : (Diploma, etc.) _____

- Years Worked in Current Position: _____

- Previous Job Positions: (*List the Last 3 if any*)
    - ➢
    - ➢
    - ➢

Part C: Main Body of Research Interests

1. Has the school adopted the TQM approach when implementing school improvement?

       [YES]   [NO]   (*Please Tick as Appropriate*)

2. How long has the school adopted the TQM approach for school improvement?

That will be all. Thank you for accepting to participate in this study. Your valuable contribution will be highly appreciated.

School Interview Sample Transcripts

Early Adopters of TQM. Sample Interview

1. In my opinion, the important thing for being able to lead schools is to have a background in leadership and management, as there are some leaders with knowledge in different areas because they studied a Bachelors degree in geography, history or mathematics, for example, and therefore, they don't have the ability to lead. To improve our school, we need a specialist in leadership and management. As I am a leader, I took one semester in university in leadership and I think this is not enough, as I don't have some information about management practices, as a consequence, I find it difficult to deal with TQM practices. I think leaders need to have intensive courses in leadership and management to improve their leadership skills in schools.
2. Of course, schools need to be improved. They need to do this to achieve the Vision 2030 in Education, and so they should work hard. Our objectives are clear now, but we still need more work.
3. This is a very important question. The improvement in our school concentrates on humans not tools. If humans find improvement easy to achieve, everything will be alright. We need to concentrate on providing our teachers with more support, and on training courses. In my opinion, teachers need to have high morale and motivation in schools. For example, I had one teacher whose performance was not good, so I sat with him and tried to understand what he needed. After that, he became creative and changed totally. Before going on training courses, you need to motivate and inspire your teachers.
4. It has, but the improvement has been slow.
5. It does because I've struggled to influence the students, and the exam results of the students have been low.
6. I deal with my staff with morality and humanity before I ask them to do any work. It is only then that I distribute work equally, and I find that this style improves the work achieved, and my experiences in leading the school.
7. The TQM approach started when I came to this school.
8. Quality to me is in the documentation of the work and in the distribution of the tasks. If we document our work, we know about the indicators of work/our benchmarks. The documentation needs to be in files in each area.
9. I don't have a clear idea about what type of quality in business is needed in schools. In schools, TQM is different, in terms of its documentation. In school, we have to

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always be careful with the human element, which perhaps may not always be the case in the business sector.

10. Quality involves measuring real, tangible things. If you have a clear idea about your work, then you can improve it.

11. TQM is one of the tools that can be used to improve schools and it helps to improve a school's performance, and in documenting its work. For example, student absences were high, but when I used a TQM programme as an indicator to monitor this, they were minimised.

12. TQM has improved schools because it helps to expose the shortages and weaknesses in a school. There are some leaders who don't even know which areas their schools are weak in because of the overload of responsibilities that they have, and so this is where measurements and indicators can help to show weaknesses.

13. In the management practices and official processes there has been more success in the school. Teachers and leaders should share their views and work to improve the school. Neutral has been in the educational affairs, such as moral things. In terms of what has been ineffective, then I don't think anything has been.

14. For me, I don't think I know about all applications of TQM, and so I hope through my reading I learn more about these applications.

15. No, it has been limited and has not been enough, in my opinion.

16. First of all, the school has arranged for a work team to work on TQM practices in the school. The Directorate of Education controls TQM practices by providing guidance/paperwork and instructions. They also arrange for some training courses in TQM practices. There is an improvement in the implementation of TQM in schools.

17. Well, to work on this vision the first step the government should take is the privatisation of schools, moving them from the government to the private sector. It will help in terms of telecommunication, which will work better once things move from the government side to the private sector.

Do you think this will work within education?

Yes, as long there are rules in place for that.

18. We have a clear vision for 2030. We now need to work to achieve the improvement that is required on it.

19. I believe we will improve, for example, we will improve in the curriculum. We are working toward international standards. Our pupils now participate in international exams in TMISS Exam board

20. Yes, I'm confident there will be improvement, because now we are working toward improving schools, teachers, curriculums, and so on.

21. TQM practices will help because if we apply indicators and measurements, that will be able to demonstrate the improvement in schools. From that, I will know whether I have been able to achieve the goals for the 2030 Vision.

22. In my opinion, leaders cannot complicate the implementation of school improvement because they usually do their effort to improve the school but in different views.
23. We need to improve many aspects in schools. The communication between leaders and teachers is very important.
24. I would like to change the system of recruitment for teacher in schools because some teachers are not qualified for teaching and they did not want to change their levels.
25. There are some teachers who work to improve their own working practices, once they understand the target or goal of TQM practices.
26. Yes, I would work with TQM practices in the new school.
27. It is an important role in the school, because if the leader adopts TQM principles, he will help all staff and teachers toward applying TQM practices. However, if the leader is not convinced with the merits of TQM practices he will impose constraints on implementing it.
28. Yes, sure I do. He is the leader and the implementer for that.
29. I think it is the work team who work together for the improvement of the school. This team needs to be effective to help him (i.e. the leader) achieve the goals of TQM practices and improvement.
30. The moral communication between the work team will help to implement TQM practices and lead to an improvement in the school. There is a relationship between the leadership style and TQM practices, and my style of leading helps the teachers to improve themselves.
31. Yes, I do think the TQM approach will help with some styles of leadership. The distributed leaders, transformational, work leaders will achieve better performance in their schools as they are nearer to the group. The bureaucratic or authoritative leaders can't achieve improvement in schools because these types of styles don't work in schools, and teachers will not participate in work effectively.
    Extra information – We need training courses in TQM practices and indicators.

Later Responders to TQM Practices. Sample Interview

1. Of course, in general there is a need for improvement in schools. A plan needs to be put in place for the long term. First, the school building needs to be improved. Secondly, the outcome from the school, in other words, what we need/expect from students. In addition, teachers and officers in schools need to be trained. Finally, the educational resources and the training mediums need to be improved because some schools do not have those, and some have but sometimes they're not used. You know, Smart boards, data show, laptops, iPads and so on.

2. Observation in teaching or in management (you mean in everything?) Restriction in one framework does not work, and if you do that you will lose the creativity of leaders, but in general, there should be lines/paths for all schools to follow. For small things however, every school should manage itself.

3. I think we need improvement, because every year or two there are changes for the student or the teacher. Whether it's new media, social media, new activities, etc. In the past, there wasn't a connection with parents every day; now, we can do that. There are also programmes used for teachers and their students. So I think we do need improvement.

4. I think that curriculums should be improved. How do we improve them? Through improvement in knowledge. Some curriculums do not suit our students. Let me give you an example: Mathematics in the past was good. Now it has become easy and isn't good for our students. If the student studies based on these easy curriculums, this will affect the outcomes for schools. Some students nowadays do not even know how to write appropriately.

5. There is improvement already, but there is no monitoring and evaluation. This task is made more difficult by the fact that there are new instructions every year.

6. Yes, there is a need for improvement in many things. For example, we need to improve the school building, maintenance, and training courses for teachers, and devices used for teaching.

7. Of course, TQM influences school performance. The requirements of TQM practices help to improve schools.

8. I do not do that, because you need to have experts in place, a work team. Right now, we have lots of other jobs to do, so we don't have time do that. There should be a section or department in the school that is responsible for monitoring quality in the school.

9. Yes, I have. There are ongoing improvements.

10. The improvement in our school has concentrated on students. We have set up classes for educational resources with data shows, computers and smart boards.

11. Of course, there should be a strategic plan for improvement.

12. Yes, I do. A good example is how some of our classes are now equipped with educational resources. If we work hard in classes we achieve better for example we have two teacher one of them work hard with their student during the year and the other do some effort and usually did not use educational aids, the students result of the first one will be better comparing with the latter one.

13. Through exams and activities.

14. I think "Vision 2030" would like to denationalise education. I agree with that idea. Everyone becomes responsible for taking care, (i.e.) parents and students become responsible because they have to pay for their education. The issue now is that all teachers

still get their salaries without any decrease, even if they are not very good. I feel that if there is denationalisation in schools, teachers will have to improve themselves, just like they do in private companies.

15. I think Vision 2030 will improve schools, classes. As we know, private schools are much better than governmental schools because they care about things; they care about the performance of teachers and students, because with the former, they pay for them, not the government. The private schools can adopt programmes to improve their teachers but government schools wait for the Directorate of Education to do that.

16. Vision 2030 will improve schools, but the degree of difference in its effectiveness will differ from one school to another. Every school has its community and outside community, teachers, and leaders. If we say this school has to reach 70%, then for another school it might be 90%.

17. Now we are in this situation and we have attained some international students, so I think if we apply the Vision 2030 appropriately, we will achieve more.

18. Yes, it will help. If we adopt some of the indicator for school progress and put those school in rank every year, all school will carry on improvement hardly.

19. I think why not. They could apply in school. We have an example of XXX school. Their students achieved high levels in exams because they had good teachers, a well prepared school, smart classes and so on.

20. We need facilities, a work team, and an expert in TQM practices.

21. We do think about it.

22. I expect it would have improved. First, I think it would have helped help in many things, (e.g.) the educational process, school management, financially, teaching programmes, maintenance.

23. It depends on the implementation

24. I think the strategic framework for all processes in school is best, taking into consideration teachers, students, buildings, classes and the curriculum.

25. We have, but it has only been a simple attempt.

26. I think it would have been better if we had adopted the TQM approach.

27. Yes, of course. Leaders changing, sometimes every 4 or 5 years might affect the improvement of the school. This is because every leader has his own way of managing the school.

28. As a leader I hope there is improvement in every process in school, but sometimes we face limitations in devices and the bureaucratic process, which means we have to keep going back to the Directorate of Education to implement things. Teachers sometimes suffer from an overload in their work outside their own work, such as supervision of students outside class.

29. I would like to change the class system differently, because classes now for the student is boring and we cannot do many changes. The system is to take approval from directorate of Education and this sometimes take long time.

30. I hope I can start in another school and adopt TQM practices to improve the school

31. The main role of the leader is to improve the educational process. The other thing is to supervise the school in general, because the leader does not have the validity to do that without reference from the Directorate of Education. The Directorate of Education gave us some validation but we are stuck with the bureaucratic process.

32. I use distributed leadership because I find it useful in my leadership.

33. Yes, but I think leaders have more responsibilities because they have to supervise teachers, students, meet parents, and supervisors (this is job overload).

34. The community inside the school or outside the school. A poorer area is different to a well-developed affluent area. The curriculum. The school building.

35. Of course, it will help and influence the school's improvement. In general, schools need a strategic plan, and every school has its own situation and we should take into consideration factors such as the area, parents sharing in the process, community, and teachers must be involved in distributing improvement. Every region in Saudi Arabia should have their own elements. There should be development for improvement in schools, and the workload should be reduced for leaders, in order to help them to improve their schools.

Notes on School Visits

While I was conducting the study, I had the chance to observe some school activities and to speak informally to school leaders, both before and after our formally arranged interviews. This kind of informal chat with leaders gave me more space to ask about different issues in schools. The aim of including my notes on these chats in my study is to address some issues that needed to be explored in-depth in my research questions. I am presenting them here as verbatim extracts from our conversations (recalled from memory), which will give readers an idea of the situation in all the schools I visited – both early TQM adopters and later responders to TQM.

Early TQM Adopters. School Sample

School (…)

During my visit to this school and its facilities, I noticed that the leader was interested in showing me all the activities and school events advertised on the walls around the school. PE1 documented and saved all TQM activities in files in his office. Wall charts outside classes displayed student activities and their results.

In our walk around the school, we had a friendly chat and I asked some questions. One of these was "You indicated during our interview that there is an urgent need to improve and prepare the school leaders. The one-term preparation program in education is not enough for the leaders because those leaders were teachers from different field. They attend this course, it is not enough, and they may face difficulties in their leading schools?

His answer was "it is true, leadership in schools needs well qualified leaders. We should acknowledge any shortage or deficiency to provide solutions. There are some leaders offered these places who are not well qualified but get the job because of their relationship with the Education Department."

I then asked him "You think that personal relationships may play a role in getting these opportunities?"

"Yes" he replied "and we cannot ignore that a large portion of qualified leader get this well-deserved position".

I then commented "do you think building these personal relationships would help in easing some bureaucratic process with the Education Department?" and he replied "yes".

 PE1 replied to my comment about TQM ("you are emphasising documenting TQM. Do you think that the Procedural and Organisational Guide's TQM sections need some improvement?") by saying "yes, I think it is too general and lacks clarification".

In fact, during my visit to this school I was struck that the leader did not admit any obstacles to adopting TQM in the school except the need for training and the school's shortage of some facilities. That encouraged me to ask PE1 whether he had had the

opportunity to give feedback about any new application? He answer was no we have to implement what we received from MOE.

Building relationship can ease some process in school, as the case with PE1 when contacted the supervisor in ED and ask him to hurry in getting some teaching aids and equipment for school then I surprisingly ask him it seems that you do not suffer from bureaucratic process he answered with laughing face no we get enough support.

Later Responders to TQM. School Sample

School (…)

My information-gathering visits were to various schools, both with and without quality applications: modern schools and old schools, schools constructed by the government as well as rented ones to try to create a full picture of the application of TQM and school leadership in different academic environments.

This school was not modern and it appeared to me that there was a lack of some facilities, equipment, and technologies. The principal talked to me confidently and in detail about important aspects of his school. I asked him, "You consider quality application a very important application within school, and intend to do it, so why have you not done it?"

He answered, "Honestly, I have wanted to, but I have faced many challenges and difficulties, some relating to the organisational and procedural manual "quality section", as this manual is general and does not give any specifications or indications for performance evaluation - as well as not having a quality officer in our school."

I asked, "Do you think current circumstances within your school support quality applications?"

He answered, "Actually not. Unless a principal is able to overcome all the challenges and difficulties blocking the process of quality applications, he will not be able to achieve quality objectives in the right way."

I said "excuse me, what do you mean?" to which he replied:

"I mean that a principal should have the power and authority to exchange unqualified teachers for qualified ones, make decisions for the good of his school, and be free to use the school budget in the way he thinks right. Honestly, the current management process discourages any form of innovation and creativity."

"What do you mean?" I asked.

"I mean that principal always have to do what the Department of Education and the Ministry ask, and they do not have any authority for development, creativity, or innovating initiatives," he answered.

"Great! So you see it is necessary to overcome these difficulties for achieving quality application," I said.

He answered "I see it is very important, particularly as we are heading for a great change with the vision of 2030. Much effort is being exerted within the academic field to achieve the educational goals of the vision of 2030."

I asked, "In your opinion, what are the factors that can help in improving the current academic situation within schools?"

He answered, "There are many factors that help to improve the current educational situation including teachers' and principal' training and skills-upgrading, excluding unqualified teachers, providing schools with their essential and basic needs, giving them the required level of support, creating teamwork inside and outside schools, intensive workshops for evaluating the current situation, and so on. Moreover, the ministry must give schools a role in the development of policy and programmes and there must be feedback and annual workshops to identify cons and pros. We also need to adopt different educational experiences from foreign countries, like "future schools".

He answered, "There are many factors that help to improve the current educational situation including teachers' and principal' training and skills-upgrading, excluding unqualified teachers, providing schools with their essential and basic needs, giving them the required level of support, creating teamwork inside and outside schools, intensive workshops for evaluating the current situation, and so on.

Moreover, the ministry must give schools a role in the development of policy and programmes and there must be feedback and annual workshops to identify cons and pros. We also need to adopt different educational experiences from foreign countries, like "future schools".