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THE RELATIONSHIP BETWEEN TOTAL QUALITY MANAGEMENT PRACTICES AND ACADEMIC PERFORMANACE OF PRIMARY SCHOOL AND TEACHING INNOVATION AS MEDIATOR IN ABU DHABI

MOHAMED SALEM AHMED IBRAHIM ALHOSANI

UNIVERSITI PENDIDIKAN SULTAN IDRIS

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ABSTRACT

This study investigates total quality management practices (TQM) and primary school academic performance (PSAP) in Abu Dhabi: Teaching innovation as a mediator using a quantitative research design. The study also aspired to determine the relationship between TQM and teaching innovation, dimensions of TQM and PSAP, dimensions of teaching innovation and PSAP, and mediating role of teaching innovation on relationship between TQM and PSAP. A total of 342 teachers were chosen as a sample through quota and simple sampling. Data analysis using structural equation modelling was used. The findings revealed a significant relationship between TQM practices and primary school academic performance with a coefficient of (β=-0.88, $p<0.001$) and a significant relationship between TQM practices and teaching innovation with a value of (β=0.93, $p<0.001$). The study further found a significant relationship between teaching innovation and primary school academic performance at (β=1.05, $p<0.001$). It found that teaching innovation mediates the relationship between TQM practices and primary school academic performance where teaching innovation acts as a partial mediator where total indirect effect was (1.38) < direct effect (-0.50). As the findings confirmed that the TQM practices matters in determining primary school academic performance, it is a *sine qua non* for school principals and policy makers to equip teachers with adequate and sufficient teaching materials to implement school quality successfully. Also, as teaching innovation plays a critical role in governing the relationship between TQM practices and PSAP, in-depth focus on innovation is the most effective way to increase the likelihood of teachers to embrace quality of change in the school. In the future, this study of TQM practices can be used by schools in the Abu Dhabi region to improve primary schools' academic performance. The study suggests that TQM should be internalised and used to improve primary school academic performance in Abu Dhabi. In conclusion, further investigations should examine the role the TQM plays on primary school academic performance.

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HUBUNGAN ANTARA AMALAN PENGURUSAN KUALITI MENYELURUH DAN PRESTASI AKADEMIK SEKOLAH RENDAH SERTA INOVASI PENGAJARAN SEBAGAI MEDIATOR DI ABU DHABI

ABSTRAK

Kajian ini bertujuan menyiasat amalan pengurusan kualiti menyeluruh (TQM) dan prestasi akademik sekolah rendah (PSAP) di Abu Dhabi: Inovasi pengajaran sebagai pengantara' dengan menggunakan pendekatan reka bentuk penyelidikan kuantitatif. Kajian ini juga mengkaji hubungan antara TQM dan inovasi pengajaran, dimensi TQM dan PSAP, dimensi inovasi pengajaran dan PSAP, dan peranan pengantara inovasi pengajaran terhadap hubungan antara TQM dan PSAP. Seramai 342 orang guru telah dipilih sebagai sampel melalui persampelan kuota dan mudah. Data yang dikutip dianalisa menggunakan model persamaan struktur. Dapatan kajian menunjukkan terdapat hubungan yang signifikan antara amalan TQM dengan prestasi akademik sekolah rendah dengan pekali (β=-0.88, $p<0.001$) dan juga hubungan yang signifikan antara amalan TQM dengan inovasi dengan nilai (β=0.93, $p<0.001$). Kajian ini juga mendapati bahawa terdapat hubungan yang signifikan antara inovasi dan prestasi akademik sekolah rendah dengan nilai (β=1.05, $p<0.001$). Disamping itu, kajian ini juga mendapati bahawa inovasi pengajaran menjadi pengantara antara amalan TQM dan prestasi akademik sekolah rendah di mana inovasi bertindak sebagai pengantara separa di mana jumlah kesan tidak langsung adalah (1.38) < kesan langsung (-0.50). Oleh kerana dapatan kajian mengesahkan bahawa amalan TQM penting dalam menentukan prestasi akademik sekolah rendah, adalah menjadi satu *sine qua non* bagi pengetua sekolah dan penggubal dasar untuk melengkapkan guru dengan bahan pengajaran yang memadai dan mencukupi supaya kualiti sekolah dapat dilaksanakan dengan jayanya. Tambahan pula inovasi pengajaran memainkan peranan penting dalam mengawal hubungan antara amalan TQM dan PSAP. Tumpuan mendalam kepada inovasi pengajaran adalah cara yang paling berkesan untuk meningkatkan kemungkinan guru untuk menerima kualiti perubahan di sekolah. Pada masa akan datang, kajian amalan TQM ini boleh digunakan oleh sekolah-sekolah di rantau Abu Dhabi untuk meningkatkan prestasi akademik sekolah rendah. Kajian ini mencadangkan bahawa TQM perlu diselaraskan dan digunakan untuk meningkatkan prestasi akademik sekolah rendah di sekolah Abu Dhabi. Kesimpulannya, siasatan lanjut perlu mengkaji peranan yang dimainkan oleh TQM terhadap prestasi akademik sekolah rendah.

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LIST OF ABBREVIATIONS

ADEC	Abu Dhabi Education Council
AMOS	Analysis of a Moment Structures
BLA	Blended Learning Approach
CD	Compact Disc
CFA	Confirmatory Factor Analysis
CFI	Comparative Fit Index
CRS	Completion Rate of Students
EFA	Exploratory Factor Analysis
GOT	Goodness-of-Fit
HOD	Head of Department
HRM	Human Resource Management
IM	Innovation Management
KPM	Knowledge and Process Management
LF	Learning Facilities
MoE	Ministry of Education
NFI	Normed Fit Index
OECD	Organisation for Economic Cooperation and Development
PCA	Principal Component Analysis
PSAP	Primary school academic performance
RH	Research Hypotheses
RMSEA	The Root Mean Sqaure Error f Approximation
RO	Research Objectives
RQ	Research Questions

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SAP	Student Academic Performance
SCA	Students Centre Approach
SEM	Structural Equation Modelling
SF	Student focus
SL	School Leadership
SP	Strategic Planning
SPSS	Statistical Packages for Social Sciences
T	Training
TL	Transformational Leadership
TLI	Tucker-Lewis
TQM	Total Quality Management
UAE	United Arab Emirate
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations International Children's Education Fund
USAID	United States Agency for International Development

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CHAPTER 1

INTRODUCTION

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1.1 Introduction

This study investigates the TQM practices and primary school academic performance in Abu Dhabi with teaching innovation as a mediator. The three variables used for the study were TQM practices as the independent variable, teaching innovation as the mediator, and primary school academic performance as the dependent variable. The TQM consists of six dimensions, i.e., human resource management, strategic planning, school leadership, student focus, training and knowledge and process management. Four dimensions were used for teaching innovation. They are student centred approach and blended learning approach, innovation management, and transformational leadership. For primary school academic performance, three dimensions were used: students' academic achievement, completion rate of students, and learning facilities.

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TQM practices are considered one of the most prominent and emerging management philosophies that can be potentially deployed within the institutions and organisations across the globe to attain a better level of performance (Evas, 2005; Adina, 2012; Irmayani, Wardiah & Kristiawan, 2018). This management philosophy and paradigm is valued highly by industry and different educational institutions. Educational institutes have started exploring this area and the potential frameworks associated with the TQM, which can be applied within educational policies and procedures (Evas, 2005; Anne, Neal, William & Gonch, 2013; Siafwa & Cheyeka, 2019). The applicability of TQM within the educational institutions for countries such as the United Arab Emirates and its major cities potentially requires extensive work to substantiate the different features to be applied in accordance with the local culture and social dynamics. The adequate framework for monitoring the existing educational processes and introducing certain innovative methodologies to evaluate the communication-specific culture within the educational institutes of the country's major cities, such as Abu Dhabi, need to be investigated (ADEC, 2008). Educational institutes are managed and administered by high-ranking officials and educational experts who are potentially responsible for looking after the various educational activities and the policy-related implementation at the institute level (ADEC, 2008).

There are many different areas of academic excellence and improvement which can be perceived in the light of the existing educational policies and the procedures adopted by the educational institutes functioning within Abu Dhabi. The deployment of some innovative methodologies and techniques in connection with the introduction of most effective teaching as well as other valuable ways to enhance the quality of the education can be possible by utilising and deploying the guidelines set per the

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internationally acceptable quality frameworks such as the TQM (Ngambi & Nkemkiafu, 2015; Abbas, 2020). There is vast potential for the different schools and educational institutions operating within Abu Dhabi to incorporate and benefit from the internationally recognised framework of TQM. The most important feature to look at before conducting this activity is to identify the scope and different patterns regarding the educational culture towards the adaptability of the innovative methodologies within the educational institutes of the city (Al-Ketbi, 2019).

Abu Dhabi is the country's biggest city with a scope of becoming one of the most prominent cities of the Middle East and even the most prominent cities globally (ADEC, 2008; Al-Ketbi, 2019). Policymakers and educational experts need to lay down the frameworks with regards to the integration and making the quality of the education which is already very convincing to the next level in which TQM related practices can be introduced within the educational institutes (Evas, 2005; Sadikoglu & Olcay, 2014; Al-Ketbi, 2019). This will potentially allow the educational institutes operating within the city to become more significant and to exercise the different innovative ways of learning and teaching under the mandate in the guidelines proposed in accordance with the TQM, an internationally recognised management protocol.

1.2 Background of the Study

Being excellent is the goal of many organisations or institutions. However, being excellent is complex and requires an alignment of multiple factors, among which is undoubtedly having sound TQM systems (Evans, 2005). According to Evans (2005)

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management is a set of integrated actions to achieve a goal within a given period. In addition, quality means a point of excellence (Ololube, 2005; Morgan, 2015; Pambreni, Khatibi, Azam & Tham, 2019). However, in management, the term has evolved towards other definitions with different approaches. If one talks about quality from the client's perspective, he will talk about satisfying the expectations of the client or consumer. If one focuses on the technical characteristics, he will say that it is suitable for the use that meets the specifications or compliance requirements (Evans, 2005; Bajaj, Garg, & Sethi, 2018).

A sound TQM system helps the companies improve their competitive position and image both internally and externally (Kerzner & Kerzner, 2017; Dahlgaard-Park, Reyes, & Chen, 2018). It refers to different ways of doing things, but it also allows doing cost savings, detecting idle resources, steps of processes that do not generate value, etc. It helps to systematise operations as innovations often occur that help the companies make their processes more efficient.

TQM allows controlling the processes' performance and the organisation itself (Evas, 2005; Sayyad, 2017). The TQM system helps to comply more adequately with the regulations related to the products and services. TQM improves the training of company workers; by having more information about the processes, they know them better and can approach their execution in a more agile way, with less waste, etc. (Kerzner & Kerzner, 2017). In addition, maintaining a good flow of information with the staff helps increase the staff's motivation and commitment.

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TQM systems consider the requirements and expectations of the client, so their implementation has a positive impact on their satisfaction and, therefore, on their loyalty. Because of the above, the company is better positioned to achieve the following strategic and general objectives (Beckford, 2019). The improvement of the image affects a better market position concerning the competition. It could even be a shock to start an internationalisation trajectory if it were the case. Adopting a TQM system signals all the agents who interact with our organisation about our commitment to quality and continuous improvement. Meanwhile, it increases the competitive position of the company, its possibilities of sustainability over time and its leadership (Joseph & Okwara Michael and Ajowi, 2017).

However, TQM practices emphasise the client's satisfaction with its explicit and hidden demands, which can be discovered and satisfied by an intelligent offer (Goetsch & Davis, 2014; Gunsayan, & Guhao Jr, 2020). The TQM demands, in second place, the continuous improvement of the business management and its processes. Third, combined with this requirement is the need for gratifying participation by all the agents involved in business production. It is no longer, as it was before, specific management of the company's quality department. From the management to the last employee, everyone is involved in improving quality, for which they must assume a role of growing leadership based on competence and motivation, which are not exempt from values. Finally, it is required that there be a level of interrelation of companies, which transforms the traditional business competitiveness into increasingly frank agreements, which guarantee maximum quality of supply and fair access to the market (Joseph & Okwara Michael and Ajowi, 2017; Alghamid, 2018).

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This business concept of TQM management has had its version or its versions in the educational field (Zink, 2012; Prestiadi, Zulkarnain & Sumarsono, 2019). For this, it had to undergo profound transformations both in its technical nomenclature and its concepts. However, its new version has not been able to dispel the mistrust that still arises in the educational field due to its business provenance (Prestiadi, Zulkarnain & Sumarsono, 2019). No matter how many contributions a managerial management model can provide to the educational environment, it cannot contain in any way the ultimate principles that inspire a personalised model of academic excellence.

The TQM is an approach of management that aims to achieve continuing success and essentially affects the management and measurement of the overall quality of a company, including the processes of management and development of quality, control, maintenance, improvement, and quality guarantee. TQM is a constant effort in the search for continuous improvement of quality and performance that meets or even exceeds customers' expectations (Goetsch & Davis, 2014; Bajaj, Garg & Sethi, 2018). The TQM approach considers all possible actions that impact quality, and all the departments and employees of the company participate at all levels (Imai, 2012; Abbas, 2020).

The government of Abu Dhabi keeps education as its top priority (ADEC, 2008). The quality of the education system in Abu Dhabi is central to attaining the long-term economic and social transformation of the Emirate. Abu Dhabi Education Council created the Agenda of Abu Dhabi Education Policy in 2008 to frame the guiding principles, vision, and objectives for Abu Dhabi's education system. The policy agenda, developed in coordination with key stakeholders from government, industry, and

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academia, set the goals and defining principles of public policy of Abu Dhabi in education. It offers a broader framework for framing policies in education and policy priorities in educational sectors. These priorities are captured in each of the strategic plans of ADEC for P-12 education, private education, higher education (ADEC, 2008).

The worth of any school system mainly depends on the capability to attain the objective. Teachers are considered the main sources through which the educational aims and purposes can be met and transferred to the customers of an education system (Evas, 2005; Thangeda, Baratiseng & Mompati, 2016; Al-Ketbi, 2019). Such an educational system is also expected to serve its customers, namely parents, students, employers of labour and society.

Principals are vested with the primary responsibility of managing both the students and teachers to attain the educational aims of the people. To tackle the problem of poor quality in the educational system at school level, several questions need to be raised, for instance: what level of innovation is required for the school principals in conducting their tasks related to management; how do teachers display the leadership innovations under principals to improve the level of quality; to what level does the government let teachers and principals initiate innovations in the educational practices (Thangeda, Baratiseng & Mompati, 2016; Tella, 2017). Innovation in the educational system is a very significant aspect of the administrative behaviour of principals. If education should move along with the development trend recorded in recent times, then the school principals have no other alternative but to adopt innovation initiatives (Chong, 2014; Prestiadi, Zulkarnain & Sumarsono, 2019).

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The lack of initiation of innovation by primary schools' principals is one of the decisive factors responsible for degenerating standards in education. In this regard, Pejza (1985) asserted that a leader should consistently scan the environments while observing the need for change. In other words, pro-change leaders always remain proactive in improving and changing their educational standards at schools. These issues prompted the researcher to investigate whether the innovative behaviour of principal's influence the task performance of teachers in the Abu Dhabi educational system (ADEC, 2008).

Over the last decades, the quality of education, as a discursive expression, has been incorporated into the language of politicians, educators, researchers and society in general, but of what quality is spoken: the one related to infrastructure or coverage of services, improving learning of students, register in processes of improvement of all educational actors, be more efficient in the performance of tasks of daily life; these and other expressions can be part of the responses of the different actors (Bunyi, 2013, Bruns & Luque, 2015; Birchler & Michaelowa, 2016). It can also be said that academic achievement and better performance has become a current expression, but how is it understood as a task that allows tasks to be carried out by others, such as a change in the name of the administration, or as an attitude of life and innovation practices that allow progress towards processes of improvement, where educational actors are permanently registered in actions that privilege the learning of school communities (Bunyi, 2013; Prestiadi, Zulkarnain, & Sumarsono, 2019). While considering the importance of TQM standards in education, the research aims to investigate the impact of the application of the TQM on innovation and academic performance in the UAE,

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particularly in the schools of Abu Dhabi city (Council, 2012; Alzoubi, In'airat & Ahmed, 2022).

Considering the findings from the studies, it is not wrong to state here that TQM practices hold importance in every field, including education. Keeping in view, the administrative and public administration has taken a keen interest in implementing the application of TQM in the education sector for the enhancement of skilled and competent human resources (Baird, Jia, Hu & Reeve, 2011; Al-Qayoudhi, Hussaini & Khan, 2017). Though the need for TQM application has been identified long ago, it has not gained much consideration from academic and business researchers. In due course, the current research intends to analyse the effectiveness of TQM application on the UAE's education sector concerning innovation, knowledge management and primary school academic performance.

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Therefore, this study investigates the TQM practices and primary school academic performance in Abu Dhabi: using teaching innovation as a mediator. Three variables were used in the study: TQM as the independent variable, teaching innovation as the mediator, and primary school academic performance as the dependent variable. The TQM consist of six dimensions, i.e., human resource management, strategic planning, school leadership, student focus, training, and knowledge and process management. For teaching innovation, four dimensions were used. They include student-centred approach, blended learning approach, innovation management and transformation leadership. For primary school academic performance, three dimensions were used, namely students' academic achievement, the completion rate of students and learning facilities.

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1.3 Problem Statement

Reduction in students' performance in primary schools has become a significant concern for school leaders and policymakers (Asikhia, 2010). Parents raised the need for a solid base to reach quality service in the education industry to promote academic performance (Syed, 2013). TQM focuses on all processes that schools used to bring quality teaching to students. The processes concern the quality of teachers, instructional material, and the quality of curriculum development. The challenges associated with the country's educational performance, especially at the primary schools, could be improved if TQM control is taken seriously and mainstreamed into the country's educational development policies and programmes (Ajayi & Oyeniyi, 2017).

In an organisation like schools, the school heads have more confidence when primary school academic performance improve (Zehir, Ertosun, Zehir & Muceldilli, 2012; Al-Damen, 2017). One of the philosophies of TQM is the ability to see that the students in the system perform excellently. TQM practices in the school will help the school leaders double their efforts to bring quality teaching to the classroom. (Akhtar, Zameer & Saeed, 2014) Researchers all over the globe (Akhtar, Zameer & Saeed, 2014; Bunglowala & Asthana 2016; Al-Qayoudhi, Hussaini & Khan, 2017; Al-Damen, 2017; Arshad, Halipah & Omar, 2018) affirmed that TQM practices is the tool that can improve the quality of service because it is a continuous improvement process and parents' feedback is used to improve the quality of teaching more effectively and efficiently. TQM practices are the philosophy of management that tends to link all organisational functions in the school system to focus on meeting the requirements of students and the goals of the school (Hashmi, 2007).

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As a result, TQM practices have played numerous roles in the realisation of educational objectives. The TQM practices are still not popular in Abu Dhabi schools among the school leaders. As TQM practices were practices in oil industries and manufacturing companies, its study is still dearth in primary schools in Abu Dhabi. The academic performance of primary school students in the last five years was not encouraging (ADEC, 2018). The Ministry of Education (MoE) and the UAE government were concerned about what caused a reduction in academic performance. Likewise, the parents have asked intrigued questions from the school leaders about what caused a reduction in the students' performance. Although the performance was not so bad, the MoE and government expect improved performance. The results of the students have not met government expectations (ADEC, 2018). This is the gap the researcher intends to fill in this study.

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Abu Dhabi is a country that must develop its educational system. Less awareness of innovation in Abu Dhabi schools to teach students is limited. Some of the schools have not been able to adjust to the latest techniques in education as some countries like UK, America, and Netherlands have integrated innovation in the way they teach students. Besides this, the teachers have not fully understood TQM practices. This has been a significant concern to policymakers and stakeholders in education. Educational management was also lacking, resulting in a reduction in primary school academic performance. When the education is not well-managed as expected, students' performance will be drop. The government has begun to take drastic actions to improve the situation, but it has yet to be achieved fully.

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Since 1971, education in UAE has been a major priority aimed at preparing competent, reflective, and highly committed students (Darwish, 2009). The Ministry of Education has set a goal that it seeks to achieve for school academic performance to be 100% or not much less than the mentioned percentage and considered that the results that are much lower than the mentioned percentage is a deviation from the goal that seeks. However, looking at the result presented below, the result of 2014/2015 was 73.5% which mean the academic performance of these students have not reach the target. Also, the result of academic performance between 2015/2016 was 73.4 which equally mean was far below the stated target. Likewise, the result of academic performance between 2016/2017 was accounted for 73.3 which mean the target has not been met while the result of academic performance for the year 2017/2018 was 60.8 which mean unsatisfactory compare with other regions in the country (ADEC, 2018). See Figure 1.1 for explanation.

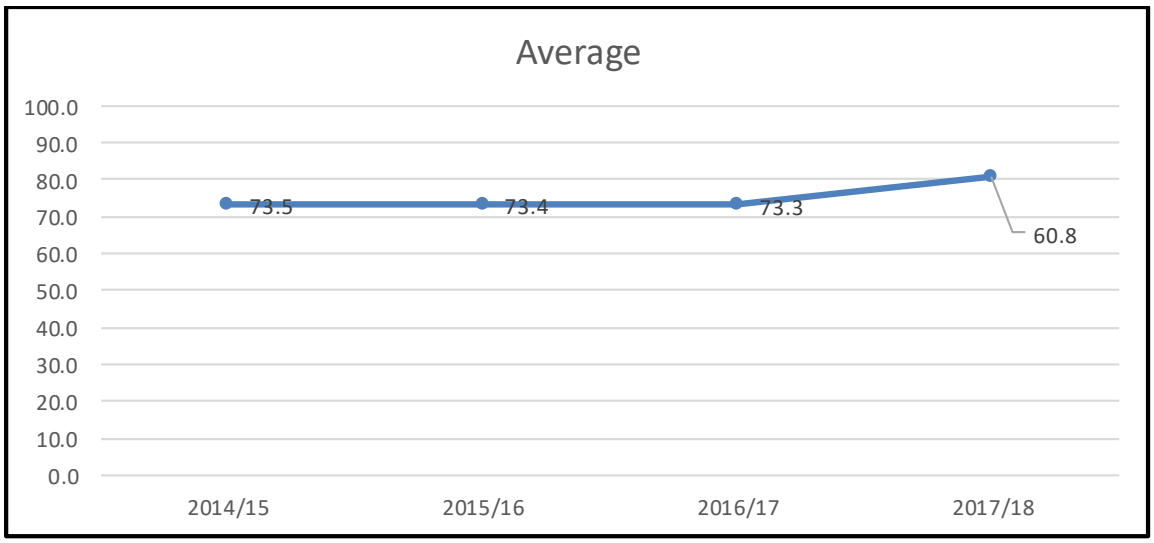

Figure 1.1. The Results of Students released by Ministry of Education.

ADEC (2018) reported that they were not satisfied with these results and schools lack proper policies and procedures for the accomplishment of the stated

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target. The government and other concerned bodies in UAE have made huge investment in the education sector (ADEC, 2018; Darwish, 2009) and these results was not match effort of the government put into education. Sowa and De La Vega (2008) believed the standard set for educational development was not met. In addition, the result of students in Abu Dhabi that was unsatisfactory was because teaching staff have breached the teaching codes and lacked motivation and these affected their overall performance (Tairab, 2010; Rachel, 2008). Rachel (2008) stated that the statistics of the result released indicated that most government school students were ill motivated and that other than affecting their performance. This serve as a gap to be fill in this study.

Apart from the problems, teaching innovation was not incorporated into teaching and learning in the Abu Dhabi primary schools. Teaching nnovation that is supposed to help students in improving their academic perofmance was lacking. Guardia, Del Olmo, Roa and Berlanga (2019) posted that innovation is the bringing of new methods, techniques and idea into teaching and learning that would add to the performance of the students. It has been equally observed that some teachers in the primary schools still stick to out-dated method of teaching. Teaching innovations and pedagogical technologies do not enter the system of self-education in Abu Dhabi schools. Shuhratovich (2020) posited that without changing the activities of the teacher, without increasing thier responsibility, creativity, and activity, all the process in education would not be achievable. Allowing teaching innovation to be applied to the educational process and the willingness of teachers to innovate, create new ones, seek, collect, apply to the educational process would improve primary academic performance. Teaching innovation came as a mediator not just by chance but because the parents, government and stakeholders in education have pointed that there is poor

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quality of teaching in the system. This teaching innovation will likely improve teachers 'productivity toward the effective teaching and learning. Therefore, teaching innovation mediate the relationship between total quality management and primary schools' academic performance.

To buttress the above statement, despite the numerous studies on TQM (Akhtar, Zameer & Saeed, 2014; Akhtar, Zameer & Saeed, 2014; unglowala & Asthana, 2016; Al-Qayoudhi, Hussaini & Khan, 2017; Al-Damen, 2017; Arshad, Halipah & Omar, 2018), most have been conducted in foreign countries. Few studies have not investigated Abu Dhabi schools. Scholars investigating TQM have also largely overlooked primary schools Most studies on TQM in the UAE used simple data analysis. This current study is making use of three variables and with the use of structural equation modelling (SEM). This proves the originality of that current research. It is believed that if TQM practices are fully adopted in Abu Dhabi to provide quality education. The education of Abu Dhabi will be a first of its kind in the UAE.

1.4 Research Objectives

Research objectives explain what the researcher wants to achieve in research. This study investigated TQM practices and primary school academic performance in Abu Dhabi with teaching innovation as a mediator. Six research objectives are developed for the study.

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RO1: To explore the relationship between TQM practices and primary school academic performance in Abu Dhabi.

RO2: To investigate the relationship between TQM practices and teaching innovation in Abu Dhabi.

RO3: To investigate the relationship between teaching innovation and primary school academic performance in Abu Dhabi.

RO4: To verify the role of TQM practices dimensions on the primary school academic performance in Abu Dhabi.

RO5: To investigate the role of teaching innovation dimensions on the primary school academic performance in Abu Dhabi.

RO6: To explore the contribution of mediating role of teaching innovation on the relationship between TQM practices and primary school academic performance in Abu Dhabi.

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1.5 Research Questions

A research question is an answerable inquiry into a specific study. It is the second step when research objectives have been formulated in research. For the course of this study, six research questions are formulated to guide the study. They include:

RQ1: Is there any relationship between TQM practices and primary school academic performance in Abu Dhabi?

RQ2: Is there any relationship between TQM practices and teaching innovation in Abu Dhabi?

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RQ3: Does relationship between teaching innovation and primary school academic performance in Abu Dhabi?

RQ4: Does TQM practices dimensions significantly affect primary school academic performance in Abu Dhabi?

RQ5: Does teaching innovation dimensions has a significant effect dimension on primary school academic performance in Abu Dhabi?

RQ6: Does the mediating role of teaching innovation significantly affect the relationship between TQM practices and primary school academic performance in Abu Dhabi?

1.6 Research Hypotheses

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Research hypothesis is a tentative prediction or explanation of the relationship between two or more variables. A hypothesis is essential in a study because it guides it. The following hypotheses were developed for this study:

RH1: There is a significant relationship between TQM practices and primary school academic performance in Abu Dhabi.

RH2: There is a significant relationship between TQM practices and teaching innovation in Abu Dhabi

RH3: There is a significant relationship between teaching innovation and primary school academic performance in Abu Dhabi.

RH4: There is a significant role of TQM practices dimensions on the primary school academic performance in Abu Dhabi.

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RH5: There is a significant role of teaching innovation dimensions on the primary school academic performance in Abu Dhabi.

RH6: There is a significant contribution of the mediating role of teaching innovation on the relationship between TQM practices and primary school academic performance in Abu Dhabi.

1.7 Conceptual Framework

A conceptual framework for a study is an analytical tool that includes numerous contexts and variations. It is integrated to make conceptual distinctions and organise ideas among the study variables. It even shows the interrelationship that exists between the independent and dependent variables. The conceptual framework built for this current study comes from the literature review the researcher used. As shown in Figure 1.1, the conceptual framework demonstrated the direct relationship between TQM practices and primary school academic performance. It also shows the mediating role of teaching innovation in the relationship between TQM and primary school academic performance.

Next, six hypotheses are used in the conceptual framework. The first hypothesis, H1, shows the association between TQM practices and primary school academic performance. H2 in the framework shows the association between TQM practices and teaching innovation. H3 explains the association between teaching innovation and primary school performance. H4 shows the dimensions of TQM practices on primary school academic performance. H5 describes the dimensions of teaching innovation on

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primary school academic performance. H6 denotes the mediating role of teaching innovation on TQM practices and primary school academic performance.

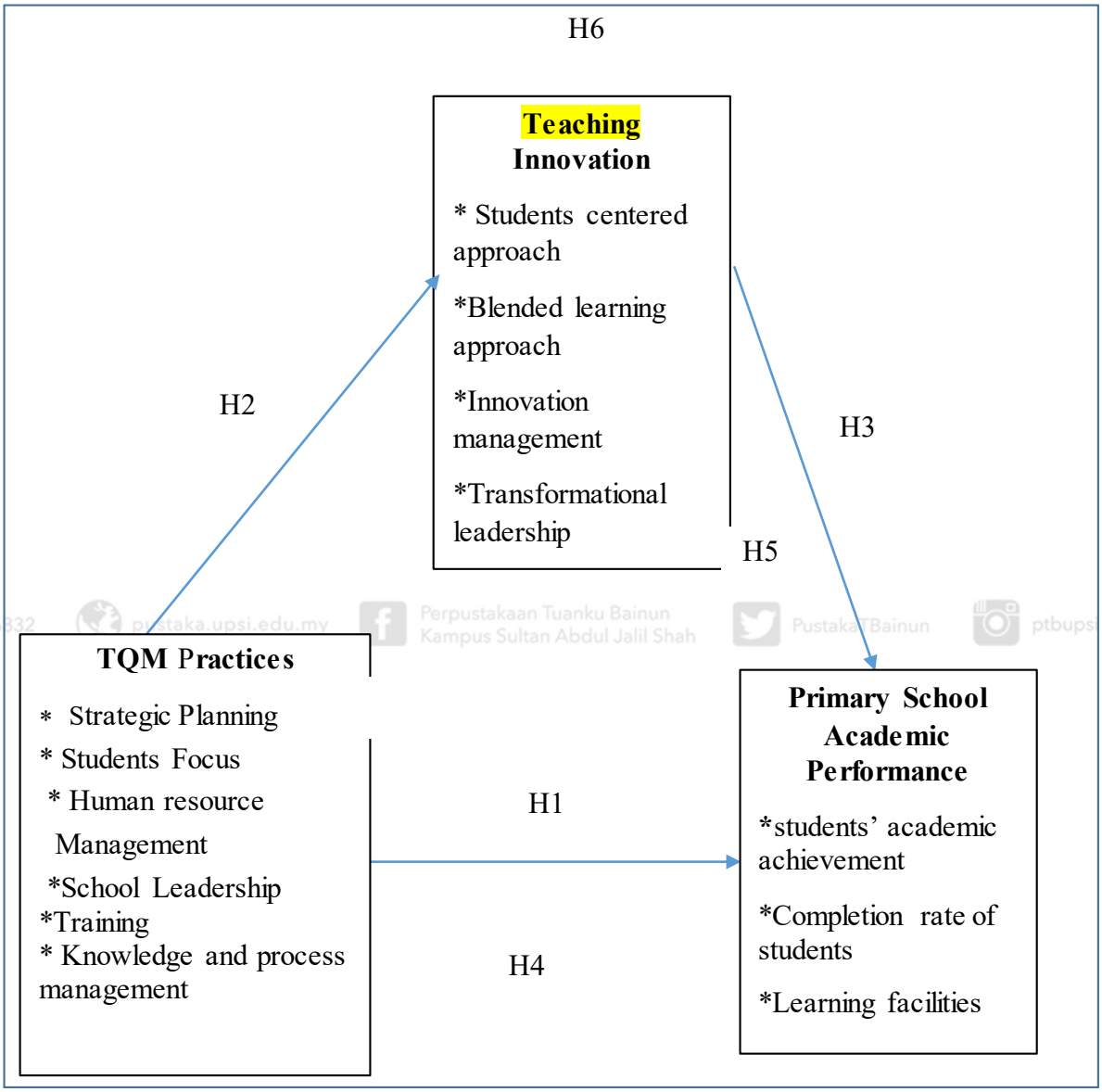

Figure 1.2. Conceptual Framework. *Source:* developed by the researcher

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1.8 Theoretical Framework

The theoretical framework refers to as theory the researcher chooses to his research (Imenda, 2014). Also, theoretical framework is the application of existing theory which help to understand an event for research. During this study, several theories were borrowed from scholars that were used to drawn conceptual framework. Some the theories have helped the researcher to understand the mediating role of teaching innovation on the relationship between total quality management and primary school academic performance. In fact, without the role of theoretical framework, the construction of conceptual framework would not have been possible. In this study, these theories were used to gather information the relationship that eexist among the variables (total quality management, teaching innovation and primary school academic performance. The theories for the construction of conceptual framework were as follow:

1. The Deming (1982) was used to explain total quality management on how it will bring quality output in the school or organization. According to Deming (1982) which stated for an organisation to succeed in business, there must be a quality control mechanism. This control mechanism is the tool to maintain customers and the provision of quality products. Deming (1982) further suggested that for any manager or school head to succeed in maintaining optimum quality, management principles must be incorporated into the organisation.
2. The Expectancy Disconfirmation Theory (1964) was propounded by Helson to explain the students' satisfaction. The Expectancy Disconfirmation Theory (1964) stated that citizens compare the performance of a service against their expectations

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of that service. Satisfaction occurs if the perceived performance meets or exceeds the expectations.

3. Schumpeter's Innovation Theory (1911) who believed that an entrepreneur could earn economic profits by introducing successful innovations**.** According to Schumpeter (1911) reported that the primary function of an entrepreneur is innovation activity which yields him real profit. By an innovation he means such changes in the production of goods as cannot be affected by infinitesimal steps or variations on the margin. An innovation may consist of:

(1) The introduction of a new product.

(2) Adoption of a new method of production.

3) The opening up of a new market; food

(4) The conquest of a new source of raw materials or semi-manufactured goods; and

(5) Re-organisation of production processes within a firm. Innovations are the commercial applications of inventions by entrepreneurs.

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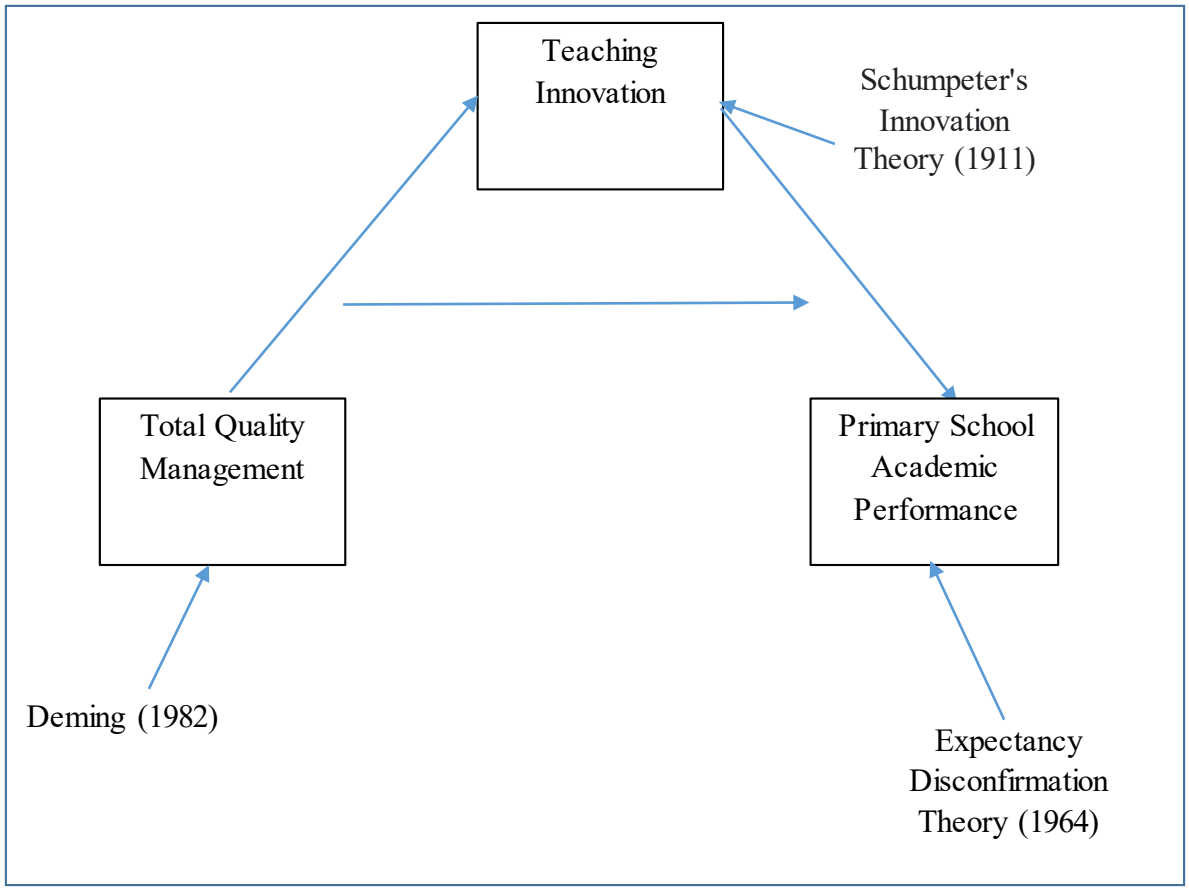

Figure 1.3. Theorectical Framework

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1.9 Significance of the Study

The study's significance for this study is divided into theoretical and practical significance. The study related theoretical significance to scholars, researchers who need materials in doing their research. Likewise, the study related practical significance to educational practitioners who benefit from the findings.

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1.9.1 Theoretical Significance

This present study investigates TQM practices and primary school academic performance in Abu Dhabi: teaching innovation as a mediator. The findings of the study would encourage a fresh look at total quality management and primarys scholl academic performance in the school. As TQM play vital role in the provision of quality output. The effective means of making TQM to take place is engage all the teachers on ground. TQM woud be a timely finding which alters the traditional way of doing things and offer to any or ally practitioners a lens through which they could better understand, prepare for or enhance school capacity for quality outputs.

Second, the TQM would identify some types of quality managememt model systhesised that fit in primary schools. The synthesised underpinning theory of the model not only add to the body of knowledge on TQM, but it would also advance practionners and the relevant party's knowledge and provides direction as useful feedback in the planning, designing, implementing and evaluating future training for school teachers. It also would help develop professional development activities for schoolteachers and particularly, set standard criteria for prospective schoolteachers in the field of managing school change.

Third, several theoretical contributions emerged from this research. First, the novelty of this research is the development of TQM practices based on six dimensions. This dimension would be tested empirically and theoretically based in line with the theory formulated. The synthesized underpinned theory of this model would not only add to the body of knowledge on TQM practices but would provide a framework to

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further explore the relationship between TQM prtactices and primary school academic performance in a systematically process.

1.9.2 Practical Significance

The study examined TQM and primary school academic performance in Abu Dhabi: teaching innovation as a mediator. As the study is prioritised for development in Abu Dhabi schools, the findings would help the policy and decision-makers develop a good monitoring system that will make TQM practices practicable. This does not mean that monitoring schools is not available, but it will be effective.

Second, the outcome of this current study would help the school head and policymaker about the best teaching innovation to be introduced to the system since innovation is a new idea injected into the system that will make school quality one. Teaching innovation will upgrade teachers, which assists primary school academic performance in Abu Dhabi.

Third, teaching innovation is a new development in Abu Dhabi schools. Then the result would be helpful for the principals of various schools where workshops should be organised in the name of innovation. The school principal and teachers benefited from elements of innovation such as ICT innovation, professional development. As teachers' benefits from this innovation, it will help the students in the classroom.

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Fourth, the awareness of teaching innovation and TQM in Abu Dhabi is still low among the teachers, policymakers, and school heads. Therefore, the result of this study would inform them and transform the whole Abu Dhabi school. This will improve the quality of Abu Dhabi schools and the level of neighbour countries.

Fifty, the study's findings would transform the industries and companies in Abu Dhabi on how to utilise TQM in the provision of quality products since TQM is about the continuance of provisions of quality goods to final consumers.

1.10 Scope and Delimitation

This present study investigates TQM practices and primary school academic performance in Abu Dhabi with teaching innovation as a mediator. The Abu Dhabi Emirate is divided into three regions, namely, Abu Dhabi, Al-Ain and Al-Dhafra. This study is not interested in other regions, i.e., Al-Ain and Al-Dhafra but teachers and schools in Abu Dhabi are the study's primary concern. The reason why other regions were not selected is that the time constraint given to this research is limited. Another reason is that there is a dearth of materials in those regions to buttress this current study. Therefore, the researcher selected Abu Dhabi as a place of study because of sufficient materials to be used in the study.

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1.11 Operational Definitions

Quality

Quality means how good something is compared to similar things or having one thing in common.

TQM

TQM refers to a technique or modality adopted by the management and employees how to be included in the continuous improvement principle of the production of quality services to the clients. There are six dimensions formulated in the study to measure TQM. They are school leadership, student focus, human resource management, strategic planning, training, and knowledge and process management

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School Leadership

School leadership refers to the ability of a group of individuals or an individual to influence and control followers in the school system to achieve organisational goals.

Strategic Planning

Strategic planning refers to the development of strategy and policy and method of communicating this policy and strategy to the organisation that will transform (Bohoris, 1995).

Student Focus

Student focus is connoted as the degree to which an organisation like school can consider students' needs before teaching and learning are planned in education

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Human Resource Management

Human resource management integrates quality performance and teaching objectives into educational objectives plan. In the same vein, it means the integration of teachers' participation in professional education and training that will lead to better school performance.

Student Focus

This study refers to student focus as to where teaching and learning are concentrated on students to achieve educational objectives

Training

Training is the process of imparting knowledge and skills to teachers in order to perform effectively on the job.

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Teaching Innovation

Innovation as embodiment, combination, synthesis of knowledge in original, relevant, valued new product or process, it involves the creation of an idea and its implementation (Ose, 2017). Under this innovation, four dimensions are raised for measuring teaching innovation which include student-centred approach, blended learning approach, innovation management and transformational leadership.

Innovation Management

Innovation management is the systematic promotion of innovations in organisations and includes planning, organisation, management, and control tasks.

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Students' Completion Rate

The students' completion rate is how well the students completed the last stage of education.

Innovation

Innovation is the introduction of new ideas and translating such ideas into quality service where customers will receive satisfaction.

Blended Learning Approach

This study defined blended learning as an innovative method in education that is introduced to make learning more attainable (Liebowitz, 1999; Smith, Hayes & Shea, 2017). The blended learning approach in education integrated computers and video to teach the students.

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Transformational leadership

Transformational leaders establish a vision for their followers and guide the change through motivation, inspiration and encouragement.

Student-centred Approach

This is an innovative approach to the teaching of students so that teaching and learning can achieve. This study defined the student-centred approach as a type of teaching method that centre on learners only instead of teacher dominating the teaching ((Ajide & Chang Tik, 2009; Ismail, 2018).

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Transformational Leadership

This study refers to transformational leadership as the leader who can motivate and encourage followers to perform a job in an organisation without using force.

Primary School

Primary school can be considered a school for children aged 5 to 11 years.

Students Academic Performance

Students' academic performance is measured in relation to what is attained at the end of a course since it is the accomplishment of education's medium or long-term objective. three dimensions are measuring students axcademic performance which are students' academic achievement, students' completion rate, and learning facilities.

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1.12 Summary

In this study, the following structure is given study to guide and direct the researcher. They consist of background of the study, problem statement, objectives, questions, hypothesis, significance of the study (theoretical and practical), operational definitions and scope and delimitations.

The study explains primary school academic performance. Next, the study also has the following headings: meaning of quality, scholar definitions of quality, concept of TQM practices, dimensions of TQM, meaning of innovation, and dimensions measuring innovation. All these headings mentioned here are related to previous studies

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on TQM and primary school academic performance in Abu Dhabi: teaching innovation as a mediator.

Finally, chapter three of the study investigate the following headings: research design, population, sampling techniques, research instrument, pilot study, and data analysis techniques, among others. After this, the remaining chapters four and five present the results of the study and findings, discussion, and conclusion.

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