CHAPTER 1: BACKGROUND TO THE STUDY

1.   Introduction

This thesis examines the extent to which the NSW model of quality teaching is transferable and applicable in a diverse cultural and social educational context: in this case the Abu Dhabi school system. To undertake this task, it was essential to understand how quality teachers and school leaders in Abu Dhabi practiced their day-to-day teaching and responsibilities, and to explore the extent to which they apply and achieve the NSW model's dimensions and criteria of quality teaching.

This thesis utilizes a combination of research techniques: content analysis of official documents, review of surveys results, observation data from other sources, and field notes. The study also accessed a variety of sources of 'desktop data': that is, data readily available from relevant organizations, in addition to information compiled from library sources and printed materials that were produced locally, nationally and internationally. More particularly, the analysis and some illustrative examples are drawn from the author's professional experience in the field along with analysis of data gathered from surveys conducted by the Ministry of Education (MOE), the Emirates Center for Strategic Studies and Research (ECSSR), and Abu Dhabi Education Council (ADEC) on teachers and school leaders.

These sources were used in large part to provide an overview of government intentions and system operations, in addition to insights into the practices undertaken and expected of Abu Dhabi's teachers and school leaders. Nevertheless, and to counterbalance the potentially unreal and unrealistic assessments made in those documents of the actual and potential situation in Abu Dhabi, the major component of the evaluation and analysis uses data gathered from surveys conducted by ADEC and notes collected while working in the field, personal but informal observation of teachers and school leaders, and experiences and impressions obtained as a professional. This is underpinned by a literature review used to provide a theoretical and philosophical perspective, especially regarding notions of quality, quality teaching and learning, and quality teaching practices that affect and transform student achievements and educational improvements.

This approach provides descriptive, impressionistic and analytical information and more quantifiable data on the quality and competency of teachers and school leaders, thereby producing meaningful and consequential data on the quality of teachers and school leaders in the Abu Dhabi education system. This information is analyzed in relation to the NSW quality teaching model's dimensions and elements to determine whether this model can be applied to the Abu Dhabi context, with the intention of its use as a framework for quality teaching and learning, and providing a structure and benchmark for assessing the qualitative standards achieved in students' learning.

1.2 The context of the research

The United Arab Emirates (U.A.E.) is a complex and diverse society both culturally and socially. It is a relatively new federation with an abundance of wealth, an increasing population, and strong aspiration for economic advancement and growth. This aspiration is behind the country's plan for diversification of its economy, the enhancement of its human capital and the foundation of the government of Abu Dhabi's economic growth and productivity plan.

The Abu Dhabi Economic Agenda 2030 launched the government's roadmap for the economic development of the Abu Dhabi Emirate and is aligned to its 2007/2008 Policy Agenda which focused on priority areas such as building a sustainable economy through the development of its human capital and the development of a highly skilled, highly productive workforce (Abu Dhabi Economic Vision 2030, 2008). This policy agenda lays the foundation for the reform agenda of the current education system, specifically the creation of a modern education model for the delivery of quality education. The country has had to focus on its social and human development programs as a means of protecting its future in the region. In the 30 years of its existence the United Arab Emirates (UAE) has undergone profound social, economic, demographic and environmental changes. Revenue from oil has caused unprecedented economic transformation in the country, which has produced tremendous challenges to its social structure.

1.3   Background to the study

The Emirate of Abu Dhabi is considered an emerging economy on one hand and a high-income country on the other. It continues to experience strong economic growth. World Bank statistics

show that most countries are experiencing around 2.2 to 6.0 percent growth while Abu Dhabi is experiencing around 12 percent (World Bank 2006; Abu Dhabi Statistical Yearbook, 2008). However, as a country develops there are aspects of its human and social systems that need strengthening, and one of these elements is its education system. To facilitate and support its economic growth the country needs a quality education system and the engagement and harmonization of all sectors to contribute to the development of its human capital.

Educational reform occupies a significant role in the national development strategies of the members of the Gulf Cooperation Council (GCC). The initiation of such reforms is driven by the desire to foster knowledge-based economies throughout the GCC region as well as to prepare young nationals for productive citizenship and employment (Bindon, & Lane, 2012). "However, as they pursue agendas to both preserve indigenous culture and embrace key aspects of globalization, educational leaders and policy makers face challenges and opportunities unlike those faced by other regions. Indeed, sizeable financial investment by governmental leaders, deregulation of private education, an increasing national youth population, and the presence of large expatriate communities has led to the development of educational systems unlike most others in the world" (Bindon, & Lane, 2011, p. 1). To address the challenges and ensure stability and future progress of its citizens the country has had to focus on the social and human development aspects of its society through the improvement of education, health and the inclusion and empowerment of women. This developmental perspective is reflected in the words and beliefs of its former leader: "*our concern for human development is essential because it is the pivot of any real progress. No matter how many buildings, facilities, schools and hospitals we build and no matter how many projects and bridges we set up, it will remain a lifeless, material entity incapable of survival. The spirit of all this development is man, it is man who is capable with his mind, resources, art and determination to preserve these achievements and push further*" (Al-Nahyan, 2003).

The search for sustainable solutions for educational development extends beyond mere development of good policies and initiatives and organizational development strategies. The need for profound educational reform in the Gulf Cooperative Council (GCC) Region and specifically, in the United Arab Emirates (U.A.E.) is vital to its growth and future development, economic viability and overall productivity of its human capital. According to research conducted by the World Bank in the Middle East and North Africa (MENA), education "plays a crucial role in promoting poverty alleviation and economic growth, both at national and at

household levels. It reflects the aspirations of the people for a successful integration into the global economy in an ever changing world" (World Bank, 2008, p. xv). The World Bank report infers that while there has been considerable change in the region especially in education, the reforms have not fully delivered in the integration of education and economic growth. The report determined that essential to the success of any reform is human capital.

Meyer (2009, p.1), defines human capital as "the abilities, skills and knowledge of an individual that can be used in the labor market in exchange for wages". Human capital represents the students, the teachers and the school leaders, and the extent and impact of their role in the society and in the labour market. Improving human capital is expected to impact upon and offer positive gains to both private and public sectors; however, this can only be achieved if there is a relationship between education and economic growth, and education and employment (World Bank, 2008; Maroun, & Samman, 2008; Barber, Mourshed, & Whelan, 2007; Chapman & Miric, 2009; ECSSR, 1999; Becker, 1999; Share, 1999). While education should not be viewed as a substitute for human capital, it does influence and can be linked to the skills and economic growth of a country. This interrelationship is evident in the link between test scores and per capita growth rate, "A one standard deviation increase in test scores on international tests is associated with an increase in the real per capita growth rate of 1.4 percentage point per year" (Meyer, 2009, p.2).

This conclusion is supported by the existing literature on the status of education in the region and its impact on student achievement and relevant growth of the economy (Ibrahim, 2010; Rezk & Kralikova, 2012; Maroun, & Samman, 2008; Barber, Mourshed, & Whelan, 2007; Chapman & Miric, 2009; Bindon, & Lane, 2011; ECSSR, 1999). According to Rezk & Kralikova (2012), "Despite significant past achievements, the MENA education systems still face challenges on several fronts. Both the high unemployment rates among the MENA youth and the importation of specialised foreign experts to the MENA region are clear signals that the education system has failed to equip graduates with the skills demanded by the labour market". A lack of qualified teachers, learning materials, classrooms, laboratories and libraries, coupled with the lack of autonomy and funding, can be blamed for the insufficient quality of MENA education and the subsequent high unemployment rates" (p.6).

In 2007-2008 the government of Abu Dhabi published its Policy Agenda designed to address the socio-economic challenges facing the emirate, and their impact on the emirate's ability to

"develop a sustainable and diversified economy capable of bringing benefits to all" (Abu Dhabi Executive Council, 2008, p.3). This document highlighted the perceived challenges being faced by the emirate and specifically those having a direct impact on the education system. The political leadership recognized that the education system has a major role to play in addressing the workforce challenges identified, especially those relating to low employability, low school completion rates (high school and higher education), and graduates' low level of qualification. Statistics indicate that in general the level of education of the Abu Dhabi workforce is below that of other transforming economies, such as Ireland and Singapore (Abu Dhabi Statistical Yearbook, 2005; Abu Dhabi Education Council, 2008). As well, the achievement of the Emirate's vision of a diversified economy requires major changes in the education system and requires an increase in the proportion of highly educated national workers. The 2007-2008 Policy Agenda defines the priorities for public policy for the emirate, and one of its pillars and priorities is the development of a premium education system and a strong human capital base.

To achieve its priority and meet its targets, the political leadership made the decision to increase its investment and resources in the education system, thereby supporting and advancing the quality of the national workforce. In 2008, the Abu Dhabi Education Council (ADEC) approved and implemented its Education Policy Agenda, which identified '*Human Capital'* as one of its major pillars, comprised of four policy elements:

1. Qualification Guidelines defines the minimum qualifications-education, experience, pedagogical training and examinations-required to become certified teachers or school leaders.
2. Recruitment and Retention describes the fundamental guidelines surrounding the method for recruiting teachers and staff.
3. Professional Development defines the ongoing training for principals, teachers and staff to continue growing their practice and meeting the needs of learners.
4. Evaluation defines the processes and responsible parties for evaluating P-12 principals, teachers and staff.

To implement this policy agenda ADEC embarked on a comprehensive reform plan with the purpose of achieving high quality education by addressing some of the fundamental problems and challenges that currently exist within the system, such as the quality of teachers and school leaders. A key goal of the emirate's leadership is the restructuring of its education system and the improvement of teaching and learning by way of improving the overall quality of education and the quality of the teaching workforce. Various reforms have been implemented over the last decade and the issue of teacher quality and school leadership continues to emerge as a key challenge within the Abu Dhabi system that requires major transformation.

This plan of action and strategic focus was also influenced by the international agenda established by organizations such as the United Nations (UN) and United Nations Educational Scientific and Cultural Organization (UNESCO) around strategies for dealing with social and human development issues such as basic education, poverty alleviation, gender equality, empowerment of women, and education for sustainable development (UNESCO, 2009). The UAE, like most countries, were signatories to the Education for All (EFA) known as the Dakar Framework, and the Millennium Development Goals (MDG) implemented by the United Nations that placed targets for achievement of these goals by 2015. This developmental agenda, and the need for sustainable social and human development in the form of human capital, are driving the country's reform strategies. While educational reform is at the forefront of social changes in the U.A.E. there are certain challenges that it will have to overcome to achieve sustainability; such as reducing its reliance on an expatriate workforce which has impacted on its own ability to develop its own knowledge source, and relevant education system. Its low educational achievement, as measured by years of educational attainment in the adult population, shows a high dropout rate and relatively low performance on international tests (World Bank, 2008; OECD, 2007; UNESCO, 2009; Wiseman & Al-Bakr, 2013; Maroun, & Samman, 2008; Chapman, & Miric, 2009; ECSSR, 1999).

The UAE, like most signatories to the EFA and the MDG Goals, linked most of its reform initiatives to accountability processes, policy development and curriculum change, while the role of school leaders and quality teachers and their influence in the classroom have largely been overlooked. There has been much research conducted on teacher quality (Darling-Hammond, 1999; Rivkin, Hanushek & Kain, 2002) and much longitudinal research on the preparation of educational leaders (West-Burnham, 2002; Leithwood et al., 2004; Harold, 2006; Harold & Stephenson, 2006, 2007, 2008), but what is needed is a more systematic focus on the qualities of teachers and school leaders especially in developing countries. Recent research in the field (Darling-Hammond, 2002; Andersson, 2008; Levine, 2005; Day, 2001) has revealed important insights into the preparation and development of teachers and school leaders, along with the importance of relevant and suitable qualifications and accreditation, and the value that this contributes to educational professional practice.

There has been an abundance of research on the impact of quality leadership and teaching on student achievement. The findings indicate that whole-school reform and improvement in students' achievement are directly linked to the quality of teachers and school leaders.

Educational leadership is second only to teaching in its impact on student achievement (Leithwood, 2004). School leaders, the research found, play a critical role in leading change and promoting student success and ensuring that students are given the opportunity to reach and maximize their full potential. Transformation of education and learning environments is more effective when engaging and well qualified teachers and school leaders are directly involved with students, and who engage and guide students in effective learning activities to promote knowledge, understanding and skills. To effect systemic change and transform the education system, education leaders and policy makers need to recognize the following two points and their importance in sustainable transformation:

1. The influence that societal contexts have on the education system,
2. The evolving role of the school system.

Research has identified a direct relationship between educational reform and social change. Yet for the most part, according to West-Burnham, schools are unaffected by these societal changes. They seem to be protected from the influence of the economic and societal changes that are taking place in communities: "the extent to which the world has changed, and that schools should change in response, remains highly contestable" (West-Burnham, 2005, p.3). He contends that profound changes are not possible within the current school system because they are still promoting schooling designed for 18th and 19th century societies, when in fact they should be promoting education that is more consistent with the 21th century's society and lifestyle. Research indicates that most school reforms are focused on improvement of student achievement, curriculum and quality of schools, and are intended to generate systemic change. Given this focus and target group it is easy to see why teachers are an important part of the process. "Teachers are essential players in promoting quality education, whether in schools or in more flexible community based programmes; they are advocates for and catalyst for change. No education reform is likely to succeed without the active participation and ownership of teachers" (UNESCO, 2000, p.9).

It is undeniably clear that to succeed in the restructuring of schools and achieve sustainable change in an entrenched traditional[1] educational system requires a shift in thinking, and this starts with teachers and the preparation of teachers (Gallie, & Keevy, 2013; Chapman, & Miric, 2009). Without the involvement and engagement of teachers, fundamental changes in teaching and learning strategies, improved teaching practices and innovative learning strategies will not

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[1] 'traditional' educational approach as defined by UNESCO (2004:1)

be achievable or be sustainable.   While there is recognition that both school leaders and teachers are crucial to educational reforms and specifically initiatives that are trying to affect student achievement, there has been little change in the way they are educated and prepared for working in schools. This is evident in the approach being used and maintained across the GCC and Middle East countries whose institutions continue to graduate teachers with outdated skills (ADEC, 2009; Wiseman, & Al-Bakr, 2013; Barber, Mourshed, & Whelan, 2007; Salehi-Isfahani, Hassine, & Assaad, 2012). The higher education institutions and primarily teacher education programs have not moved away from traditional teaching methods.   The education systems within the region have only recently started to converse and address teachers' and school leaders' skills and competencies, and develop structural mechanisms to evaluate qualification criteria and quality performance, i.e. standards, licensing and certification (Wiseman, & Al-Bakr, 2013).

Research indicates that one of the industries experiencing continuous growth in the Middle East and North Africa (MENA) region and especially in GCC countries is education. However, growth does not equate with progress or modernization. For the most part, all systems are conducting business as usual; the structures, methodologies and curriculum have changed little over the years. This perspective is reflected in a series of Notes produced by the World Bank (2009) on education in the Arab world, which reported that a shift to quality in Maths, Science and Technology was faltering (Shore, 1999; Badran, 1999; Al-Sulayti, 1999; Benjamin, 1999). Ezzine's analysis is that the region is faltering in Maths and Science due to the use of "rote learning which still dominates teaching and little emphasis is put on problem solving and interactive teaching methods that would demand initiative from students… He found that most MENA countries continue to use a more traditional model of pedagogy (for example, copying from the blackboard, and little interaction between teachers and students" (Ezzine, 2009, p.1).

This lack of progress in the region's education systems, the teachers' insistence in using traditional modes of teaching, and their reluctance to embrace more contemporary teaching models, it could be argued, are indications that teachers, like other occupations, tend to operate in their comfort zones, in areas where they feel most comfortable and where they have to change the least. It is not unusual for individuals regardless of occupation to fear change, as change brings with it uncertainty, and new demands and skills that are not easily adopted. There are many policymakers and educational system officials in the region who support the retention and continued use of traditional approaches and methods as they feel it ensures

preservation of their culture and identity (Ibrahim, 2010; Chapman, & Miric, 2009; Maroun, & Samman, 2008).

There is a perception in the region that while modernization and improvement of the education system is desired, many stakeholders believe that these change means adopting behaviours and customs from dominant cultures which will weaken and destabilize the deep-rooted characteristics of the system, such as local traditions, practices and culture (Ibrahim, 2010; Steiner-Khamsi, 2004). This concern about the impact of educational transfer and what is being transferred (Ibrahim, 2010) has served to limit the professional growth and competencies of teachers and school leaders, and their ability to enhance teaching and learning. This perception has resulted in a weakened education system with limited impact from the educational reforms implemented, where education is not highly valued, and teachers and school leaders appear to hold onto the status quo. Ibrahim (2010:502) assessment is that "the reforms were resisted by actors who strove to conserve the status quo/and or they confronted deeply-rooted social values and political ideologies in the society".

According to West-Burnham (2005), *schooling* is a process that focuses on training and skills and is outcome driven, while *educating* focuses on thinking, processing and is a dynamic interactive learning process. His view is that if you emphasize *schooling* you are looking at outcome driven structures and curriculum that are often focused on tests outcomes and teachers teaching to the tests. Rather, if you emphasize *educating* then the focus is on learning processes, which could then reflect the changes being experienced in society at large. He further contends that to have profound change there needs to be a re-conceptualization of how schools are to change. To accomplish significant change the system must move away from the concept of improvement to one of transformation. Transformation, he states, implies significant change taking place to certain elements within a complex process. By focusing on transformation, certain elements can be changed and managed and thus impact on the whole (West-Burnham, 2005).

The impact that social and economic reforms are having on education is visible in developing countries such as the United Arab Emirates. The country's leadership has recognized that to progress in a competitive global market it must first make the necessary changes to the education system and provide students with the required knowledge and skills to shape their

future. The problem for the Abu Dhabi Emirate is that its education system and current model of education and approach to teaching and learning is designed around traditional *schooling* - rote learning, test results and teachers teaching to the tests. The emirate's expectation, however, is more in line with the modern *educating* model. The paradox is that the expectations of the proposed reforms do not necessarily address the state of education, the quality of teaching, or the quality of learning, but rather the performance of students on tests.

The measurements being applied are standardized international tests to provide comparative data between countries and thus their standing in the global arena. This desire to meet the competitive demands of the global market has compelled the United Arab Emirates and specifically, Abu Dhabi to transform its education system and ensure that its population has the competencies to compete in the global community. However, issues such as a lack of an educational model and a framework for identifying teacher quality and quality teaching environments have not been included in the reform agenda. According to Mawgood (2000), "no country can develop a stable post-industrial economy unless it has the backing of a well-educated community". He adds that "education is a means for shaping growth to desired [UAE] national ends. *The power of nations is no longer measured by their natural resources, capital surplus, population or army but by the quality of thoughtful, innovative minds of a population that are able to lead the development of their nation in the context of a new global environment"* (Mawgood, 2000, p.13). This requires measurements and a framework barely captured by a simple reliance on test-based results.

1.4   Purpose

The purpose of this study is to examine the extent to which the NSW model of quality teaching is fully applicable in the culturally and socially diverse context of Abu Dhabi education. To achieve appropriate contextual indicators, it is essential to understand how quality teachers and school leaders in Abu Dhabi are practicing their day to day teaching and responsibilities, and to explore the extent to which they have met some or part of the NSW model's criteria of quality teaching. One way of doing this is through analysis of information and data that captures the beliefs, perspectives and practices of the teaching community and learning environments and the context in which teachers teach and school leaders lead and manage their schools. Second, this study will be underpinned by analyzing Ministry of Education, Education Council, other ministries, and institutions documents that deal with teacher and school leader quality, and their definition of quality teaching and learning.

1.5   Significance of the study

The concept of quality teaching and its relationship to student performance has been at the heart of the debate on education reform and school improvement for decades. The issues of teacher quality and the quality of teaching and learning have tended to dominate the discussion on educational reforms and only relatively recently have included the role of school leaders. The focus on quality education and the importance of quality teachers and school leaders intensified in the GCC region as a result of increased pressure from international organizations such as UNESCO as countries were asked to meet, monitor and report achievements of the agreed goals and targets (UNESCO, 2000; UNESCO, 2004). The education reform movement finally hit the world stage in 2000 when world leaders and policy makers collectively agreed to tackle the issues of access and quality education, and proposed strategies to advance countries' ability to improve the lives of their citizens. This advancement would produce citizens who could adjust to the future social and economic demands of a rapidly changing society (Sakarneh, 2007; Chapman, & Miric, 2009; Al-Sulayti, 1999; Mograby, 1999; Benjamin, 1999; Davies, 1999; Share, 1999).

The reform movement is not a new concept to the U.A.E., however accuracy in determining the targets of the reforms and their desired outcomes, viable planning and implementation plans have affected sustainability. A current key goal of the UAE and specifically the Abu Dhabi leadership is to restructure and improve the quality of education. Various reforms have been implemented over the last decade and the issues of teacher quality and quality of school leadership have emerged as key impediments to change, along with the need for a systematic approach in a structural framework for accountability, monitoring and evaluation. Improvement of all aspects of education is the number one strategy for both the country and educational leaders. This plan and strategies for improving quality education affect not only approaches to teaching and learning and modernization of curriculum, but also the quality of pedagogical skills, the preparation of teachers and school leaders, and their effectiveness in classrooms and learning environments.

The impact that social and economic reforms are having on education is visible in developing countries such as the United Arab Emirates. These countries are recognizing that to progress in a competitive global market they must first make the necessary changes to their education systems and provide students with the required knowledge and skills to shape their respective futures. The major challenge facing the UAE and similar educational systems around the

world is how to adapt and change to meet the needs of a changing society and economy. As nations move to an increasing level of competition in the global market, they need to ensure that their workforces are highly skilled and can meet the demands of an ever-changing economy, while delivering quality education to the masses.

The Abu Dhabi leadership has made some major strides in reforming its education system and on initial review it gives the impression that comprehensive reforms are being implemented in the schools. However, under close scrutiny it becomes evident that a comprehensive strategy for reform has seldom been pursued. Instead, reforms are often introduced piecemeal and mostly focused on the aesthetic elements of school improvement. One of the challenges of having schools reflect the needs of the community, and linking the economy to the product of the education system, is the departure from a structure of learning. This link to societal changes being addressed by the school system has forced many education systems to focus on training and skills-based outcomes. A system structured for learning, by its very nature, should focus on long term learning processes and the development of higher order cognitive development through education, such as those methods based on the constructivist approach to teaching and learning. The inherent danger of being influenced by a changing set of norms and requirements is that the system is frequently forced into constantly shifting its standards, which sometimes results in it being at the mercy of specific industries and particular social and political forces. This paradox is very evident in the Abu Dhabi education system as it tries to position itself both within the Middle East and the global economic and social scenes.

The Emirate therefore has to constantly review what it means to transform its education system. Does it mean one computer per child, one textbook per child, an interactive whiteboard in every classroom, or does it mean the development and enhancement of a system that will serve the needs of a country and bring the achievement level of students into line with international standards? The answer depends on the foundational strength of the existing system and the expectations that are being placed on the system. It is these expectations that will determine the architecture of the transformation and drive the essential elements to undergo change. The potential for these changes to become a leading edge of systematic education reform will depend on whether the country is developed or developing and the available resources to institute the changes effectively. It could be argued that regardless of the amount and availability of resources the key element or building block to systematic change is the quality and effectiveness of the teaching workforce. Without this key element, any deficiencies with

this component could affect the integrity of the structural design and weaken its efficacy. Moreover, "recent massive educational reconfigurations have resulted in new pedagogies at the primary, secondary, and tertiary levels; new educational pathways for both nationals and expatriates; new partnerships with foreign educational institutions; and new challenges to the preservation of indigenous education" (Bindon, & Lane, 2011, p. 1).

Abu Dhabi is faced with tremendous challenges. On one hand it wants to improve the education of its citizens and make them more competitive; and on the other hand the emirate has had to come to terms with the fact that its citizens are not motivated to become competitive. A review of the Emirate reform in basic skills such as concepts in mathematics and sciences initiatives has shown that after years of attempting many reforms, students' performance is still considered low by international standards. This continued underachievement has forced the emirate to look to western standards, curriculum and assessment methods. This lack of consistency and achievement is due to the fact that the country and especially Abu Dhabi Emirate is implementing educational reforms without the benefit of a grounded framework by which to assess the dimensions of quality teaching and learning.

The engagement of school leaders is an essential part of the student learning environment and school improvement, but is a relatively new concept in the context of the UAE school system. Traditionally, teachers are seen as the doers in the implementation process in schools. Initiatives that had the potential of impacting student achievement and the delivery of curriculum in the classroom were for the most part delegated to teachers. While this strategy may have worked in most developed countries, it has not worked in the emirates due to the social, economic and cultural separation between teachers, school leaders and the student population. In addition, school leaders and specifically principals in Abu Dhabi schools are positioned as authority or executive figures with no pedagogical or administrative role within the school.

The challenge is that for the most part, within the Abu Dhabi system, the majority of school leaders and teachers were found to not have the relevant education, qualification, knowledge, skills and competencies to positively impact the learning of students (ECCSR, 2008, 1999; ADEC, 2007, 2008). To introduce effective and sustainable change significant efforts are needed to improve the training of today's leaders to develop the competencies, necessary skills and their learning capabilities to deal with emerging issues and effect change within the system.

It is evidence by the research that for educational reforms to be successful and sustainable, "the dimensions of quality teaching must be included, taught, trained and implemented" (Sakarneh, 2007, p.6). Only then can a system be at the forefront of educational excellence and be able to build a quality education system.

In the Abu Dhabi context of educational reforms these elements are ambiguous and not well identified, articulated or addressed. The emirate has a history of recruiting foreign trained teachers and school leaders', the majority of whom are unqualified. The evidence indicates that current teachers and school leaders trained in and out-of country do not have the relevant knowledge, competencies or skills appropriate for the ever changing and evolving school environment. In order to develop capacity and address the quality issue, the emirate needs to develop and implement an educational strategy for the effective preparation and education of its school leaders and teachers (Emirates Center for Strategic Studies and Research, 2008; Abu Dhabi Education Council, 2009). It is evident that for educational reforms to be successful they must include both teachers and school leaders, and for quality teaching to take place it must be the core element of a framework grounded in pedagogy connected to improving students' outcomes and improving teachers' approach to teaching and learning practices.

1.6   Statement of the research problem

The government of Abu Dhabi in its policy agenda for 2007-2008 defined education as a pillar that will enable Abu Dhabi to meet standards of excellence achieved in the most highly educated countries in the world. The primary objective of educational reform in Abu Dhabi is to create the highest quality, comprehensive system of education that applies world-class standards and expertise. It's recognized that the restructuring of schools to achieve improvement of education and student performance will also require improvement of teachers and school leaders' quality and competency. Given the current estimation of the quality of unqualified teachers in the system, the lack of training and experience among school leaders, the expected outcome of improved quality requires a comprehensive quality teaching and professional development framework aligned with international best practices and standards.

While there is substantial anecdotal evidence that student achievement across MENA countries is low, systematic evidence of educational quality, measured against either national learning objectives or international standards, is limited (Chapman, & Miric, 2009: 315; Wiseman, & Al-bakr, 2013). Moreover only a few MENA countries have participated in the international

assessments of students' learning achievements in Mathematics and Science, and Dubai participation only in the 2007 (TIMMS). The results of the 2007 study highlighted the low student performance in the Gulf countries compared to the international mean (Bouhlila, 2011). The UAE educational policymakers' response to increasing data on low student performance was to focus on teacher quality as the main educational reform (Aydarova, 2012; Wiseman, & Al-bakr, 2013). Research shows that new Emirati teachers in the UAE system, on average, receive only two weeks of training before commencing employment, and the MoE's new qualification criteria only require the "completion of 18 hours of educational courses from a university or college to be employed in the system" (ECSSR, 2008, p.2) as a teacher. This compares to an average of one to two years training in OECD benchmarked countries (Ministry of Education, 2007; Abu Dhabi Education Council, 2009).

The 2009 ADEC review of Abu Dhabi teachers' qualifications estimated that of its 12,004 teaching workforce, over 30 percent had a diploma or less, and of those holding a university degree only a small percentage were in education. Those with a degree in education tended to be new Emirati graduates. Of the 12,004 teachers, it is estimated that over 60 percent are foreign trained expatriates (on working visas) while local Emirati teachers make up 40 percent of the teaching workforce (Abu Dhabi Education Council, 2010). This data was supported by the ECSSR research which found that of the 21,699 teachers employed and teaching in schools in the UAE, 67 percent of males and 55 percent of females had only a bachelor degree; and only 10 percent have a bachelor of education or higher degree (Emirates Center for Strategic Studies and Research, 2008). Under both the MoE and ADEC new qualification criteria only the last 10 percent of teachers would meet the criteria.

The data reveal that a majority of teachers are without teaching qualifications or an appropriate and relevant degree for the subjects they teach. The expatriate teachers are largely from the Middle Eastern and North African (MENA) regions and while tending to have degrees in subjects areas, have no teaching qualifications or pedagogical training. The ADEC (2010) review highlighted several major issues such as the large numbers of degrees and diplomas that could not be validated as institutions of issuance could not be confirmed; that a significant number of documents were photocopied and originals could not be located or produced; and that a considerably large number of institutions that granted the awards were no longer in existence. These findings highlighted the need for a robust quality assurance policy and system, and further emphasized the lack of quality teacher preparation programs, lack of

professional standards, lack of effective evaluation mechanisms, and a lack of a teacher certification process that could provide a mechanism for validation of teachers' and school leaders' quality.

Research indicates that there is a direct relationship between teacher quality and students' achievement. The Center for Public Education (2005) issued findings from research conducted on teacher quality and students' achievement. It found that teacher quality stands out for its potential to close the gap in academic achievement between students. The study found that "good teachers have a substantial effect on student achievement, especially when assigned to work with disadvantaged students". The research further confirms that "teacher quality more heavily influenced difference in student performance than did race, class, or school of the students" (Nye, Konstantopoulos & Hodges, 2004, p.238). Ezzine (2009), in his study on "Education in the Arab World: Shift to Quality in Math, Science & Technology Faltering", found that the MENA region is still behind the rest of the world in student performance.

The report indicates that countries in the MENA region have invested heavily in education over the last 10 years but outcomes are less impressive. He found that while there were improvements in areas such as primary education enrollment, closing the gender gap, and decreasing illiteracy rates, however, for the most part, improvements in "the educational achievements of the MENA countries have remained below other countries at similar level of economic development" (World Bank, 2008, p.84). Ezzine's findings were also similar to findings by UNDP, 2002; Welmond, 2006; Hanushek & Woessmann, 2012; Chapman & Miric, 2009; Wiseman, & Al-bakr, 2013.

The findings specifically found that the region's performance on international tests remains significantly below those of the OECD countries. This is reflected in the results of the 2007[2] TIMSS test of 8th grade Math and Science capabilities resulted in none of the 12 participating MENA countries reaching the average scale.   In fact, the results show that there were no improvements over the four years of the test period (Cohen & Soto, 2007; Hanushek & Woessmann, 2012; Heston et al., 2002; World Bank, 2009; Chapman & Miric, 2009). In addition, most MENA countries do not have national standards for achievement in learning, and those that do have standards, do not use the tests results to promote accountability (World

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[2] Trends in International Mathematics and Science Study (TIMSS) provide data on the mathematics and science achievement of students in 4th- and 8th-grade.
  TIMSS data are collected every 4 years.

Bank, 2009,).   The report further stressed that one of the continuing problems faced by MENA countries is their methods and approach to teaching and learning where "rote learning still dominates teaching and little emphasis is put on problem solving and interactive teaching methods that would demand initiative from students" (World Bank, 2009, p.84).

Similar results were found in the UAE's assessment of grade 7 students in English (reading and writing), Maths, and Science (Ministry of Education, 2005). The results shown in table 5 below reveal that most students were performing below the expected grade level and in most cases were performing two grades below their international counterparts. Further analysis of P-12 graduates shows they were not adequately prepared to enter higher educational institutions, and upon admission require extensive preparation and foundation in subjects such as English, maths and sciences (Ministry of Education, 2005).

Table 5: Students Grade 7 Assessment Results
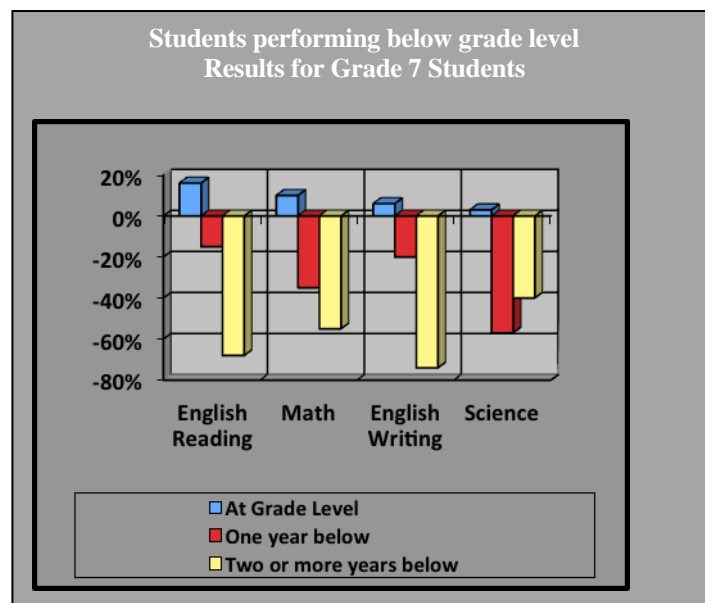
Ministry of Education (Assessment undertaken by the Australian Council for Educational Research), 2005
Achieving Excellence in Abu Dhabi's Schools

According to Bindon and Lane, one of the challenges in understanding the current educational reality in the GCC is the diversity of reform models. For example, "a key factor underlying the rapidity of the current educational reform efforts is the increasing reliance on foreign educators and educational institutions to help recreate educational systems" (Bindon, & Lane, 2011, p. 1). This reliance on foreign educational transfer is reflected in the number of foreign institutions and providers operating in the region. In Bahrain, Qatar, and the United Arab Emirates, much of the expansion of their educational systems has been through the founding of international

branch campuses of foreign universities, such as Ireland's Royal College of Surgeons in Bahrain and Texas A&M University in Qatar; similarly in the K-12 sector, many GCC nations have contracted with or allowed entry to foreign education providers to replicate primary and secondary level programs and practices in their systems (Bindon, & Lane, 2011). For example, in Dubai there are now 12 different national curricula being offered at the secondary level and 13 national curricula at the tertiary level (Bindon, & Lane, 2011).

Reports produced by the World Bank Report (2009) and (UNDP, 2002) proclaimed that the MENA region was facing an educational crisis. This crisis the report concluded was due to "Three converging factors contribute to this crisis: an increase in the educational disparity within countries, a decrease in the quality of education despite high per capita education expenditures, and a mismatch between labour market needs and the output of educational systems"(UNDP, 2002, p.52). Yet while there is general consensus that the quality of education in the MENA region poses a problem, there is little agreement as to why this is the case (Heyneman, 1997). One result is that teachers in the MENA region have come under increasing scrutiny. Despite a scarcity of available studies on education quality in the region (UNDP, 2002: 54; Akkari, 2004: 152), teachers are increasingly viewed as a key issue (Chapman & Miric, 2009).   An ADEC (2008) report on teachers' language proficiency shows that of its 4,000 teachers required to teach using English as a medium of instruction, the majority of did not have the language skills required to deliver the curriculum in English. The data further show that less than 10 percent of the English teachers tested across all public schools met the minimum English language proficiency (www.adec.ac.ae). A similar report on Arabic language subject teachers reveal that only nine percent of the teachers had the required competency level, and 79 percent ranged from modest to limited ability in the use of Arabic language as a medium of instruction (Abu Dhabi Education Council, 2009; United Arab Emirates University, 2009).

The perception is that "teachers mediate students' access to content and control the classroom activities most directly related to learning. As such, they have the greatest influence on student achievement" (Chapman & Miric, 2009, p.313). This was also concluded by the ACER (2005) analysis, which found that the primary reasons for the students' under-performance in subjects such as English, maths and sciences were the teachers' lack of qualifications in the subject area, and their lack of competencies in both pedagogical skills and subject content knowledge. Given that the majority of expatriate teachers are recruited to teach

these subjects, and based on the results of the ADEC (2008) review which found that the majority of the teachers were unqualified in the subjects they were assigned to teach, it could be concluded that there is a direct relationship be the underachievement of students in these subjects and the qualifications of the teachers.

Along with the identified challenges of low students' achievement and unqualified teachers, the emirate (ADEC and MoE) are also affected by the lack of a coordinated strategy for professional development and/or a training plan to support teachers or school leaders. In cases where activities are provided they tended to be conducted by supervisors, who themselves were found to be under-qualified or unqualified based on the established qualification criteria (ADEC, 2008), and where training takes place the focus tended to be on areas related to curriculum adjustment and testing. With no continuous professional development (CPD) framework to support the development of teachers and school leaders the system has no mechanisms to support the development of its staff. This is further complicated by the country's Emiratization policy which only supports professional development activities for UAE nationals. Given that the majority of teachers are expatriates (estimated to be up to 87 percent in some regions) in cycles 2 & 3 (grades 6-12), and are unqualified without access to CPD, the system continues to be at risk of under-performance and is jeopardizing the quality of teaching and the improvement of students' achievement.

As stated above, one of the consistent challenges that the system is facing is the status of its teaching workforce in which foreign trained (expatriate) teachers are the majority, but in which they do not feel connected to the students, school leaders or the community, and feel beleaguered in their job. The expatriate teachers are disconnected from the professional communities, and isolated from their colleagues, since shared experience and collaboration are not encouraged nor supported by either the schools or the system in general. Based on my observation over a 7 year period and anecdotal evidence from teachers this lack of professional support and access to CPD activities have had severe consequences on both students and teachers, and on the education system as a whole. Studies have correlated lack of professional development activities with low achievement and performance of students. These studies further reveal that sustained professional development, aligned to the curriculum and focused on instruction, has a positive influence on school level achievement in Mathematics and Science (OECD, 2012; Cohen & Hill, 1998; Kannapel & Clements, 2005; Wenglinsky, 2000, 2002 cited in Goe & Stickler, 2008).

Achieving the goal of an improved quality education system and improved student achievement is proving to be difficult for Abu Dhabi. The data indicate that the emirate is suffering from an under-developed human capital pool, outdated curriculum and pedagogical methods. Analysis of available information substantiates a lack of qualified teachers and school leaders, and poor quality of instruction of students due to teachers' lack of pedagogical competencies and skills (United Arab Emirates Yearbook, 2004; Chapman & Miric, 2009). To compensate for these difficulties the system has adopted certain practices that have not been beneficial for students and have undermined the quality of the system. These are practices such as graduating students who have not demonstrated acquisition of required subject knowledge and high repetition rates resulting in high drop-out rates.

The practice of graduating students who are not ready for higher studies and are without appropriate content acquisition, has resulted in an increased of remedial foundation courses (Zayed University, 2008; UAEU, 2010). Consequently, students are spending an estimated 75 to 100 percent more time in higher education than students in other countries. For example, to complete a three-year degree could take an Emirati student 5-6 years before being eligible for the award. A four year degree could take anywhere from 6-8 years to complete. This has severe implications for students, institutions, the financial resources of the emirate, and society at large. One of the results of high repetition rates is high dropout rates, especially among males. Impact on the institutions is seen in high per-student fees in comparison with other OECD countries; a decrease in the quality of the degree granted; and graduates unprepared for the workplace. These have resulted in low productivity and low economic competitiveness, and this has major implications for both the education sector and society; consequently affecting the ability to establish a sustainable and diversified economy (Abu Dhabi Economic Vision 2030, 2008).

These results have led researchers to question the validity of the reforms and their impact on improving student achievements. According to Bindon and Lane (2011) the region's reliance on international transfers has severely impacted the implementation of true transformative educational reforms in teaching and learning; as the majority of reforms are implanted from elsewhere without adequate knowledge of the region and the impact that these reforms can have on the local population. One of these examples is that requirement for students to study in a language other than their mother tongue. In the region "many of the students attend courses taught in a language other than their mother tongue (most schools now operate exclusively in

English)" (Bindon, & Lane, 2011, p.2). The authors went on to say that "The reliance on the experience and intellectual resources of foreign education providers leads to questions of whether the reforms are innovative in reality as well as rhetoric, and whether they are oriented towards the effective development of indigenous human capital and therefore the future success of the economic and social structures of the GCC or simply rooted in past experiences of other nations".

As part of its strategy to overhaul the Abu Dhabi education system and improve school and student achievement, the Abu Dhabi Education Council (ADEC), has as its main objectives, to ensure only highly qualified teachers are in classrooms, and only excellent and highly qualified school leaders lead and manage schools. In addition, ADEC has implemented strategies to support, and develop teachers' standards framework and a framework to promote a continuum of learning. A new framework for the restructuring of schools and the professional development of the teaching workforce needs to be at the core of systemic educational reform in Abu Dhabi schools if fundamental changes are to be sustained. As the role of principals is about to change and be aligned to a new school management model, it is important that they are prepared to take on these additional responsibilities and be an important element in the model for change. To develop leadership knowledge and skills appropriate for today's education, school leaders need to be prepared to move forward and meet the challenges of the school environment. To accomplish this, leadership preparation programs will need to be developed and designed to reflect adequately the needs and role of school leadership in the emirate. At the same time, the competencies of teachers need to be grounded in relevant training and qualifications that are required for their specific subjects, standards for quality teaching, and professional and personal development and growth.

The purpose of this study is to examine the extent to which the NSW model of quality teaching is fully applicable in this diverse cultural and social context. To achieve appropriate contextual indicators, it is essential to understand how quality teachers and school leaders in Abu Dhabi are practicing their day to day teaching and other responsibilities, and to explore the extent to which they have met some or part of the NSW model's criteria of quality teaching. To ensure success and sustainability of education reforms, the Abu Dhabi leadership needs to identify and implement a "developed model of quality teaching practices based on, and solidly grounded, in theoretical and empirical platforms, such as the NSW model of quality teaching" (Sakarneh, 2007, p.6). This study and the thesis' findings aim to provide insights and a relevant model to

address some of the current challenges and provide a model for innovative approaches and quality teaching and learning strategies within the Abu Dhabi context.

It aims to assess the Abu Dhabi educational context before determining whether a model of quality teaching is relevant and applicable. The intent is to analyze quality teaching practices and existing policies and practices as they relate to professional standards and quality teaching and learning practices. There has been limited research conducted on the quality of teachers and school leaders and the impact of their roles in the schools in developing countries such as the United Arab Emirates. Through an examination and analysis of research conducted on the teachers' and school leaders' qualifications, competencies and practices, the proposed research will identify and analyze the basis of quality teaching and learning practices, the systems definition of quality, teachers and school leaders perception of quality teaching and learning, and how these are demonstrated in the Abu Dhabi school system.

1.7   Institutional reforms

"Having largely achieved the once-distant goal of providing free access to primary and secondary education for all nationals", (Barber, Mourshed, & Whelan, 2007: 39) the UAE like other Gulf countries had to start addressing the much larger challenge of raising the quality of that education. The U.A.E has recognized for some time based on findings of reviews on the outcome of educational initiatives to reform its education system (MOE Report, 2004; Vision 2020, 2000) and the students performance on the ACER (2005) English, Maths and Science assessment that the state of education in its public schools was far from meeting both its required standards and those of the international community (OECD, 2004; UNESCO, 2004; Barber, Mourshed, & Whelan, 2007; Maroun, & Samman, 2008). However, after many attempts at system-wide reforms it has been unable to move the educational system closer to international standards.

These reforms, it could be argued, failed due to a series of factors: the lack of a clear vision and model of education, lack of knowledge of the specific issues to be addressed and the appropriate strategies required to achieve the desired effect, the lack of expertise in the workforce to implement the required initiatives, the type of implementation strategy and process required, and to a certain extent push back from the society on the increased reliance on educational transfers. The current educational reform strategy is structured around a planning process, which focuses on input verses outputs, with a long-term aim of developing a globally

competitive workforce (Barber, Mourshed, & Whelan, 2007). According to Barber, Mourshed, & Whelan (2007:40) " to achieve these goals, GCC policy makers much unwind many years of emphasizing the constituent parts of the system rather the performance of its students-in other words, they must stop emphasizing inputs over outputs".

Observations and anecdotal evidence indicate that this strategy process was undertaken without the relevant research and analysis of which specific problem(s) were to be targeted, i.e. teachers or quality teaching, quality of students learning, or performance on tests. As the specific vision for the system was unclear, so too were the desired outcomes, appropriate implementation strategies and measurement of success. As the policymakers were being advised to measure outputs (Barber, Mourshed, & Whelan, 2007) the preferred strategy was through "Performance-based approaches" (Leithwood et al., 1999) also known as "project management" or results-based management. "The proponents of greater accountability contend that these institutional reforms will improve student outcomes by heightening incentives for various actors as perform at high levels (Pashiardis & Brauckmann, 2010, p.10)". The resulting change initiatives are based on broad outputs with a reliance on studying lessons learnt from other educational institutions worldwide and partnering with the world leading educational institutions to apply those lessons (Barber, Mourshed, & Whelan, 2007:40). The resulting strategy, however deals more with the achievement of performance indicators or outcomes designed fundamentally to measure target delivery, but not educational achievements such as students' achievement and school improvements.

Based on professional experience with the MOE and ADEC and field observation over 7 years, this strategy and process was further complicated by the system not having its own internal processes, the strategic plans and implementation strategies being the responsibility of consultants or expert expatriates hired on a contractual basis for a specific period of time. Consultants and expatriates are usually not retained long enough (due to Emiratization policy) to monitor and/or adjust the implementation strategies or the completion of the reform initiatives, the consequences being un-implemented and uncompleted initiatives, and a cyclical restart of many reforms (ADEC, 2008; Maroun, Samman, 2008; Barber, Mourshed, & Whelan, 2007). The reliance on consultants to drive the reform and the implementation process has shifted from the traditional approach to education reforms focused however inexpertly on quality teaching and learning, to a project and results-based management approach. The change agents and those responsible for driving the reform initiatives are often not educators

but planning consultants, and so while they are able to initiate the preliminary part of the process, establish outcomes and key performance indicators (KPIs), they have not been able to manage the reality of the education environment, factors in the schools, and the education context in general.

The use of project-based management strategies is seen by Pashiardis and Brauckmann (2010) as a new concept of Governance to successfully deal with the growing complexity of systems thinking. This method of monitoring and evaluating educational reform reflects a lack of recognition of the complexity of the educational process and education systems in general, especially in a rapidly developing country like the UAE. According to Pashiardis and Brauckmann (2010, p.8), this general use of the concept of governance makes it difficult to distinguish between those things that are specifically related to governance versus those that more managerial. They further content that "a perspective on governance versus management illustrates that we are dealing with steering procedures and steering mechanisms which are pursuing different aims at different levels of governance". There are many issues surrounding the use of approaches such as results-based management as they often do not reflect the complex nature of educational reforms and outcomes as these are only measurable over time (Badran, 1999; Cornesky, 1999). This means that tangible results are not immediately visible; particularly if the expected outcome is to improve student outcomes and teacher quality, through, for e.g., teaching practices such as 'authentic pedagogy' to improve students' achievements. This is especially so as quality education arises from, and is situated in, the interconnectedness of the various components of the educational system, such as students' achievement and performance, qualified and quality teachers, qualified and quality school leaders, engaged parents, and an enriching learning environment. Successful reforms rely on the effective working together of each of these components.

Project-based management, including the use of KPIs, as an institutional reform approach is used by development organizations and Non-Government Organizations (NGOs) in the development field/sector to measure performance in achieving outputs and the impact of the intervention strategy. The proponents of institutional reforms that focus on accountability systems combine standards, external monitoring of results, and corresponding rewards and sanctions based on performance indicators. The argument is that this type of system provides better information on student outcomes and therefore directly and indirectly rewards students, teachers, and school leaders for their efforts (Pashiardis and Brauckmann, 2010, p.11). It could

be argued, however that while this instrument has been effective in measuring inputs and related outputs and therefore value for money, it is far more difficult as an effective measurement of educational reform over the long-term, due to complex educational factors such as quality teaching and learning, improvement of students' achievement, and the delivery of quality education (Chapman & Miric, 2009; Welmond, 2006). The problem is not the instruments, but their rigidity and how they measure intended outcomes. In this instance, the success indicators tend to be one-dimensional, static and do not allow for flexibility or modification of elements that are naturally part of a changing school and system environment.

This type of planning process has become pervasive in the education sector in the UAE, and is used as the main and almost exclusive way of measuring performance in relation to targets for reasons relating primarily to justifying expenditures. The World Bank (2008) in its review of educational reform in the MENA region found that most of the reforms were focused on engineering the system, with very little focus on accountability aspects such as linking the performance of schools and teachers to students' results, and effective monitoring mechanisms. Reports from UNESCO (2008) and OECD (2005) however, found that in an attempt to improve inequality in schools many countries and policy makers are relying on accountability strategies, and using performance enhancing monitoring and evaluation mechanisms to improve both processes and quality results.

Research has shown that this simplistic view and static approach is the standard being used in the industry, even though most reforms are focused on major and complex restructurings of systems and not just incremental reforms where such specific targets and budgeting may be more appropriate (Hallinger & Habschmidt,1994; Klieme, 2004). Even the extent and use of planning processes to bring about systemic change at each level is minimal, as often the focus appears to be on accountability which relates to more management processes rather that governance for the improvement of student outcomes, piecemeal expenditure of funds, and are not necessarily related to student outcomes. Nevertheless, it must be acknowledged that the UAE strategy of focusing on narrow results-based management is not out of step with the rest of the world, especially developing countries whose target completions are based on donor countries' developmental agendas. One of the identified reasons for the shift away from the traditional approach towards more results-based indicators and outcome-based matrices is the perceived lack of success of previous reforms identified by increased but narrow accountability measures.

The research indicates that the demand and desire to improve the education system and the pressure to implement change and restructure schools is not new and gained popularity with the adaptation of such business concepts as 'accountability' and 'strategic planning' (Poulson, 1996; Newmann, King & Rigdon, 1997; Olson, 1992; Rhodes, 1992; Murphy & Hallinger, 1992; Fullan, 1982; OECD, 2007; Pashiardis & Brauckmann, 2010; Klieme, 2004). Along with the desire to achieve successful reforms, and the utilization of new accountability tools, policy makers had to recognize the need for new strategies in order to achieve real substantive changes and long-term sustainability. Yet the vast majority of research confirms that over the last decade, the concepts of strategic planning structured on performance-based approaches has been maintained as almost the only means of dealing with issues of accountability and education reforms. Strategic planning with performance-based indicators has become the standardized and standardizing process, the solution that educators and decision makers' hope will fix all that ails the education system.

The research however has found the reverse, and that while these strategies may work well enough for businesses and development organizations as accountability tools; they failed to meet the tremendous expectations of education systems. Furthermore, what had initially appeared to be simple and straightforward to policy makers has nevertheless produced and/or delivered little in terms of transformative change within the schools. According to Huber and Pashiardis (2008) this is due to a lack of recognition that school leaders are operating within broader challenging contextual factors. Consequently, while the planning processes laid down the foundation for implementation they tended to underplay any specific measurements, factors or elements for assessing and validating the actual success of the reforms. Administrators across developing countries are having to develop strategic plans without the relevant knowledge of the context and relationship to the broader cultural and educational context in which the school is operating (Huber & Pashiardis, 2008). As administrators are functioning outside of the contextual factors and without the necessary leadership competencies to deal with the challenges of change and lasting reforms that affect either student achievements or school performance (Conley, 1993; Hallinger, 1992; Murphy & Hallinger, 1992; Huber & Pashiardis, 2008).

With a growing number of developing countries moving toward performance-based approaches to address institutional reforms, and the perceived demand of international organizations for policies and practices that reflect accountability policies, many policy makers are embracing

these processes as true reform strategies to assess and measure student and school outcomes. This increase has further exacerbated the growing perception of educational reforms as merely a procedural activity. The impact of these administrative changes, combined with the effect of economic market pressures signaled the realization that schools are failing in spite of all the attempted reforms, and the teaching workforce lacked the skills and competencies to make desired improvements.

Policy makers have come to realize that failing schools cannot improve no matter how excellent the plan for reform, if the reform does not also address the skills and competencies of the key individuals involved in the changes, i.e. teachers and school leaders (Chapman, Miric, 2009; Maroun, Samman, 2008; Barber, Mourshed, & Whelan, 2007. According to Pashiardis & Brauckmann (2010) many countries have already seen dramatic shifts in the way schools and education systems are managed in the 21st century compared with those at the end of the last century. The acceptance of this new concept of governance further implies that improvements of schools and achievements of students are directly linked to a system with more improved and better-trained leaders (Hallinger & Habschmidt, 1994; Pashiardis & Brauckmann, 2010). As stated by Hallinger and Habschmidt (1994, p.1) "reinventing schools requires exceptional leadership".

Research conducted by ADEC (2009) and the NSW DET (2009) on factors affecting school improvements and education reforms indicate that school administrators in general have no clear idea or vision on where they wanted their schools to go, how they were going to implement proposed changes, and how to identify when the desired outcomes were achieved (ADEC, 2008, 2009; NSW DET, 2009). These findings are consistent with similar research highlighted by Murphy & Hallinger, 1992; Olson, 1992; Conley, 1993; Hallinger, 1992) over a decade earlier. The lack of quality of the teaching staff and their inability to implement many of the complex, multidimensional initiatives that are often being proposed as part of school improvement reforms, is emphasized in the studies conducted by ADEC, 2007, 2008; ECSSR, 2008; Abu Dhabi, 2009).

Pashiardis & Brauchmann (2008, p.4), contend that "there is a broad international agreement about the need for school leaders to have the capacity needed to improve teaching, learning, and pupils' development and achievement". Educational systems reforms and the increase in educational transfers especially in developing or emerging countries are being driven by the

recognition of a new economic paradigm. The pervasiveness of technology in an increasing knowledge-based and service-based economy, together with new labour market demands for quality and flexibility in products and services, has put a premium on human skills to sustain economic growth and competitiveness (Mograby, 1999; Maroun, Samman, 2008; Barber, Mourshed, & Whelan, 2007; Chapman, & Miric, 2009; Wiseman, & Al-bakr, 2013).

"These societal changes and changes in the way education systems are managed have inevitable transformed the school environment into a more dynamic and complex one than in the past" (Crow, 2006 cited in Pashiardis, & Brauckmann 2010, p.11). As a result of these changes, stakeholders have widened their expectations of both teachers and school leaders and demanding higher academic results and performance standards (Weindling, & Dimmock, 2006 cited in Pashiardis, & Brauckmann 2010, p.11). In view of the complex and changing context of education, teachers and school leaders are being expected to exhibit capabilities and standards that will improve the quality of teaching and learning. Research has found however that while expectations are high for quality teachers and school leaders, their education and preparation have not kept pace with these demands. There has been increasing debate on the importance of teachers and school leaders on improving students' academic achievement (Marzano, Waters, & McNulty, 2005), and therefore how they are trained and how they learn to do their jobs in ways that contribute to student learning (Crow, Lumby, & Pashiardis, 2008; McKinsey, 2010).

The research has found that while many countries such as the United States, Canada, United Kingdom have come to realize the importance of investing in school leaders through leadership development programs, most of the educational institutions have continued to use the same "ineffective and irrelevant" methods… of training…that emphasized theoretical and standardized training" of school leaders (Pashiardis, & Brauckmann, 2010; McKinsey, 2010; OECD, 2011; Commonwealth Secretariat, 2009; Hallinger&Habschmidt,1994) that no longer fit the role and the job requirements. In addition, school leaders in developing countries do not necessarily received or required to have any additional training to be school leaders. In the case of teachers, many countries in their attempts to meet the demands of the developmental agenda (Internationally Agreed Goals) targets have chosen to employ and deploy teachers that are un-qualified and under-trained (Commonwealth Secretariat, 2010, 2003; Crowther, 2009, 2011; Teaching Australia, 2007); and those that are educated have only basic subject content.

In the case of the UAE the focus of many reforms has been infrastructural, where school leaders are not tasked with implementing school related reforms, and teachers are not engaged in the process of school-based reforms (NSW DET, 2009), or what the World Bank termed '*engineering*' (improvement of furniture and building schools) is emphasized rather than students' learning and teachers' performance (World Bank, 2008; Maroun, Samman, 2008; Barber, Mourshed, & Whelan, 2007). Within the current system, school leaders are not instructional leaders and are not responsible for teachers, curriculum or assessment strategies (NSW Department of Education and Training, 2009; ADEC 2007, 2008, 2009), and based on personal observations and field work, their education and preparation are unlikely to provide them with the required skills and competencies to implement the educational reform activities.

Proposed reforms are further challenged by the number of un-qualified and under-qualified teachers (foreign trained and nationals) who lack pedagogical training (ADEC, 2007, 2008, 2009). Consequently, the teaching workforce is being perceived as not only lacking in teaching skills and competencies but also a lack of readiness to deal with the new demands being faced by the education system, i.e. issues of globalization and the increased emphasis on transferable knowledge. According to the research findings of ECSSR, (2008); ADEC (2008) many teachers exhibit limited desire to be teachers; they are performing a job, putting in time and thus lack the ability to implement the type of reforms that could achieve improvements. Based on UNESCO (2006 & 2010) and World Bank (2008) reports, the UAE has committed "more resources to education than other developing countries at a similar level of per capita income. Which has improved access to education at all levels of instruction for both boys and girls".

The UAE has made significant investments in educational infrastructure, which have resulted in an increase in the general literacy rate from 60 percent in 1970 to over 97 percent in 2006 (UNESCO, 2008). No place has this investment been more evident than in the education of females. Although women in the UAE only had access to education almost two decades after their male counterparts, today women are surpassing men in both their presence and performance in secondary and tertiary education (Ministry of Education, UAE, 2007). This level of investment however, has not improved the quality or generated the maximum benefit for either individuals or the society (Maroun, &Samman, 2008; Barber, Mourshed, & Whelan, 2007; Wiseman & Miric, 2013). It is anticipated therefore that to achieve the level of success and sustainability that is required to improve the state of education in the UAE policy makers

will need to consider alternative paths and models to effectively develop their human capacity and resources to facilitate the necessary restructuring.

To advance its plans and achieve the required reforms, the UAE needs to develop its capacity to generate and cultivate its internal knowledge base, skills, competency and leadership to bring about not only immediate, but long-term system-wide sustainable reforms. The policy makers need also to consider the increasing importance of knowledge in the development process. "Since education is the main source of knowledge creation, the task is clear: the education system must be changed to deliver the new skills and expertise necessary to excel in a more competitive environment" (Houcine, 2005, cited in World Bank, 2008, p.84). To achieve the required outcomes of improvement in quality education, and a quality teaching workforce resulting in improved students' achievements, the education system will need to become more effective in transmitting skills and competencies to all citizens and therefore will require a sound and effective quality teaching model that encompasses both teaching and learning.

1.7   Summary

The New South Wales (NSW) model was selected for several reasons; it is best aligned to the curriculum which was developed by the NSW Department of Education and Training, and because it addresses both teaching and learning and their relationship to students' development and achievement. Both aspects are crucial to the enhancement of quality teaching and learning and the improvement of schools in general. The strength of the model is in its development, design and its focus on cognitive development and student-centered approaches. Its theoretical groundings make it a model of 21st century best-practices. The model encompasses elements grounded in empirical, theoretical and longitudinal studies that show a direct correlation between quality teaching practices and student achievement (Sakarneh, 2007; Newmann et al., 1996; NSW Department of Education & Training, 2003). It focuses on the core areas of pedagogy, and of teachers' ability to assess and reflect upon their teaching and use the outcome to improve their teaching, and provides a framework that focuses on teaching skills and best practice. The model is comprehensive in nature and covers all the dimensions of quality teaching that are directly linked to improved student outcomes (NSW Department of Education and Training, 2003).

The importance of this model is that it provides a framework for assessing quality teaching and learning, and derives from evidence showing that improved student learning outcomes are

dependent on teacher quality. To this end, this model offers Abu Dhabi a desirable approach to teaching and learning and a framework to improve both its school system and the achievements of its students. This process would move the current Abu Dhabi education system towards a new synthesis of leadership development and the preparation of teachers capable of dealing with the challenges that the school system is experiencing. By ensuring and maintaining high standards and quality programs the system will ensure that its educators are equipped with the necessary pedagogical skills and competencies to meet the demands of the school system and thus build capacity and achieve sustainability.

Research supports the notion that in recent years educational reforms tend to focus on aspects of schooling that are linked to quality over quantity, quality of teaching, and quality of curriculum; and why students are not achieving and schools are failing. The reality, according to the literature, is that the majority of school reforms that have been tried are unsuccessful in achieving their ambitious goals because while the reform is intended to measure quality it is in fact designed to measure quantity (World Bank, 2008, p.4; Welmond, 2006). The World Bank Report concluded that while "most reforms in the region have attempted to engineer changes in the education system: building schools, hiring teachers, and writing curricula. The success of future reforms will require instead changes in the behavior of key education actors-teachers, administrators, and educational authorities" (World Bank, 2008, p.3). To be successful in its educational reforms the region will require "a shift from '*engineering inputs*' to '*engineering for results*' which focuses on quality outcomes and a linking of school and teacher performance with student results" (World Bank, 2008, p.4).

The Arab region and especially the UAE have special challenges that include constant demographic change, high migration into the country, and inconsistency in the quality education and higher educational institutions programs. These have impacted the region's ability to implement successful and sustainable educational reforms. The region is susceptible to, and reliant on, the use of expatriate expertise to develop and implement reforms in the economic, health and education sectors. While the country has advanced its education system it has made limited progress in maximizing the use of its human capital. Unemployment continues to be high amongst graduates and those that are employed tend to be employed by a single sector, the government.

Despite a scarcity of available studies on education quality in the region (UNDP, 2002, p.54; Akkari, 2004, p.152) teachers and their practices are increasing viewed as the key issue (Chapman & Miric, 2009, p.313). According to the World Bank the educational system is "not fully equipped to produce graduates with the skills and expertise necessary to compete in a world where knowledge is essential to making progress" (World Bank, 2008, p.3). Chapman & Miric (2009) remarks that for most countries in the region they consider that an improvement in educational quality must go hand in hand with a drive to improve teachers and teaching practices. This desire to improve teachers and teaching practices has resulted in countries reliance on external expertise. The need to seek outside expertise, and reliance on expatriates to progress the country's reform initiatives has resulted in a lack of knowledge transfer amongst its citizens which has severely impacted progress of previous development agendas (Chapman & Miric, 2009;Wiseman, & Al-bakr, 2013), and has left the region suffering from a cyclical recoiling following each period of change effort. The consequence of this reliance has been a decrease in the participation of Emirati citizens in their country's development, and in the knowledge base of its citizens generally.

To achieve the required improvements and sustainability, the existing challenges have to be delineated and long-term strategies clearly implemented that will facilitate and develop a framework for the improvement of the education system and lasting educational reforms. Sustainability of any model for school improvement and education restructuring is only achievable with a quality-teaching model that includes a qualified, skilled and effective teaching workforce along with high-level support of quality school leaders. To implement effective, long-term, system-wide reforms, the education system need to be grounded in well established standards and benchmarks that underpin major areas that include school leadership, teacher quality and curriculum quality, governance and accountability, and relevance to the social, cultural and religious environment of the society.

As the country commences on a process of renewed focus and direction for educational reform it builds on 'lessons learned' strategies and the experiences of other countries in building capacity for sustainability, and the establishment of provisions for a productive, self reliant and educated workforce.

1.8   Thesis structure

The subsequent investigation and analysis was conducted as evidence for my dissertation. This analysis provides a background and lays the foundation for the review of the state of the education system and strategies for improvement of the Abu Dhabi Education system. It introduces some of the challenges and issues being faced by the government and educational policymakers in the implementation of the educational reforms agenda, reviews and analyzes the issues related to quality teaching and educational leadership as they relate to the improvement of schools and student achievement; and specifically examines the extent to which New South Wales (NSW) Model of quality teaching is applicable as a model for the country's achievement of a world class standard of education.

Chapter one introduces the background to the study and lays the foundation for the review of the state of the education system and strategies for improvement of the United Arab Emirates and specifically the Emirate of Abu Dhabi education system. The contextual background to the study was considered first within the wider international and national parameters, then within the Abu Dhabi Emirate boundaries. The chapter also outlines the purpose of the study, the significance of the study to the Abu Dhabi Emirate, and the statement of the research problem.

Chapter two outlines the research methodology to be used in the study, the aim, research methods and instruments employed in the study, and lists the research questions.

Chapter three deals with the focus and context of the study and provides an overview of the Abu Dhabi education system. It introduces and discusses some of the challenges and issues being faced by the government in the implementation of its educational reform agenda. It further introduces the issues of educational reform and what is required in the system to provide the impetus for system-wide change and quality teaching.

Chapter four reviews the relevant literature and explores and analyzes themes in the problem of educational reforms, teachers and school leaders' competencies and qualities and their affect on school improvements and student achievements. It reviews the relevant literature on constructivism in education and its link to quality teaching and learning, and further analyzes related and relevant literature on achieving sustainability through a framework of professional standards and professional development. The chapter also outlines and examines some of the challenges of educational transfers and their potential implications on the receiving country.

Chapter five reviews and analyzes the NSW model of quality teaching, issues related to quality teaching and quality educational leadership as they relate to the improvement of schools and student achievement; and specifically examines the extent to which New South Wales (NSW) Model of quality teaching is applicable to Abu Dhabi education system and a model for the country's achievement of a world class standard of education.

Chapter six provides a comparison between how quality teaching and school leadership is described in the UAE system and in the NSW quality teaching model; and specifically examines the systems definition of quality at it relates to both teaching and learning (pedagogy) and effective teaching practices.

Chapter seven provides a review and summary of the analysis findings and recommendations. Recommendations are made based on the results of the analysis and deal with the identified limitations of the current strategies and approaches, and further propose a conceptual framework for professional standards and professional development as means toward enhancing teachers teaching practices, improving students achievements and the improvement of quality education.

Chapter eight provides a summary of the salient points of the thesis, its analysis and findings.

Chapter 2: RESEARCH METHODOLOGY

2.   Introduction

The concept of quality teaching and its relationship to student performance has been at the heart of the debate on education reform and school improvement for decades. Teacher quality has become synonymous with education reform movements as education systems worldwide attempt to address low student performance (Pollock, 2007; Chapman & Miric, 2009; Ibrahim, 2010; Wiseman & Al-Bakr, 2013) especially because of their comparative performance on internationally comparative assessments such as Trends in International Mathematics and Science Study (TIMMS). The debate for the most part has focused on how to sustain the quantity achievements while improving the quality of teaching and learning. According to Gallie and Keevy (2013, p.4) "The role of schools as learning and development centers has become critical in the context of rapid enrolment growth. In turn, the capacity of teachers and school leaders, in facilitating effective teaching and learning processes highly depends on the extent to which enabling structures and systems are in place and operational". The debate has intensified as a result of increased pressure from international organizations such as the UNESCO and the United Nations, with their agendas to not only improve education but to improve the quality of education for all.

The education reform movement re-emerged unto the world stage in 2000 when world leaders and policy makers collectively agreed to tackle the issues of access and quality education as one of the strategies to advance countries' ability to improve the lives of their citizens.   This pronouncement was seen as a means to address educational challenges of the 21st century and to produce citizens who can adjust to the future social and economic demands of a rapidly changing society (Sakarneh, 2007; Darling-Hammond, 2010; Davies, 1999; Riel, 1999).

A key goal of the UAE government, and specifically the Abu Dhabi government, is the restructuring of its education system to ensure improved student achievement and improved quality of education. This focus was identified from review of previous reforms attempted over the last decade, with the issues of teacher quality and school leadership emerging as key challenges in the change process. Improvement of all aspects of education is the number one strategy for both the government of the country and its educational leaders. This policy of increasing quality education affects not only the approach to teaching and learning and

modernization of the curriculum, but the quality of pedagogical skills and the preparation of educators for both management and classrooms roles (Barber, Mourshed, Whelan, 2007; Bindon & Lane, 2010).

A previous lack of focus on the quality and standards of the teaching workforce hindered the effective implementation of educational reforms and fragmented the type, level and success of the reforms implemented. A more systematic convergence of strategies around a clear priority of the qualities of teachers and school leaders is needed for the UAE school system to improve and achieve its strategic agenda. This is owing to recent research findings in the field of school and teacher quality (Pashiardis, & Brauckmann, 2010; Barber, Mourshed, & Whelan, 2007; Darling-Hammond, 2002; Andersson, 2008; Levine, 2005; Day, 2001; Chapman, & Miric, 2009; Wiseman, Al-Bakr, 2013) has revealed important insights into the preparation and development of teachers and school leaders, together with the importance of proper qualifications and accreditation and the value that this contributes to educational professional practice, and the achievement of students and school performance.

There has been limited research conducted in the UAE and the individual Emirates on the quality of teachers and school leaders, and only recently has analysis been undertaken by the Ministry of Education (MOE), the Abu Dhabi Education Council (ADEC), the Emirates Center for Strategic Studies and Research (ECSSR), Zayed University, and the Dubai School of Government, on teacher quality and teachers perception of the teaching profession. While there is increasing research being conducted in GCC countries on the relationship between low performance of students and teacher quality this appears to be limited to the low student performance on TIMMS compared to the international means (Wiseman, & Al-Bakr, 2013; Barber, Mourshed, & Whelan, 2007; Bouhlila, 2011). For the most part however, comparison between the UAE and other GCC countries is limited as Dubai is the only UAE Emirate that participated in the 2007 TIMMS and ranking cannot be generalized across the Emirates. "Educational policymakers in the Gulf respond to low student performance by focusing on teacher quality as a key to educational reform (Wisemann, & Al-Bakr, 2013:2; Aydarova, 2012); this response brings the global educational agenda for teacher standards and empirical measures of teacher quality to the fore in Gulf states".

It is hoped that this thesis will contribute to the knowledge and discourse on teachers and quality teaching and learning in Abu Dhabi through the assessment of the current state of the

education system, as it relates to teachers' and school leadership qualification, competency and knowledge, and teaching practices within the current education system. According to Wisemann, & Al-bakr, 2013; Akiba, 2013; OECD, 2011 educators, policymakers and scholars worldwide tie what students know to professional standards for teachers, and professional standards for teachers are increasingly aligned with global norms and expectations. These expectations are reflected and demonstrated in many countries "where teachers are typically expected to uphold professional standards and meet basic competencies in both pedagogical skills and content knowledge" (Wisemann, Al-bakr; 2013:4). To be successful, educational reforms necessitate the inclusion of a quality dimension: "the dimensions of quality teaching must be included, taught, trained and implemented" (Sakarneh 2007, p.6). However, in the context of Abu Dhabi's education reform strategies these elements are not delineated. There are no formally agreed international standards for teachers that can be applied across all educational systems worldwide, but there are certain established frameworks that can be aligned on several key elements (Wiseman, & Al-bakr, 2013).

For the purposes of this thesis and its analyses of teaching and learning, the New South Wales (NSW) Quality Teaching Model was chosen for comparison because it was being considered as a potential model by the Abu Dhabi Education Council as a possible foundation model for its educational reforms. The NSW model was also one of preference as it was standard-based, could easily be aligned to the NSW curriculum that was being implemented in the schools, and a measure by which teacher quality could be measured. The model will be used to review quality teaching practices and how these elements are demonstrated in learning environments, and to suggest how quality practices can be understood, assessed, implemented and made sustainable in Abu Dhabi's context. It is evident that for educational reforms to be successful they must include both teachers and school leaders, and for quality teaching to take place it must occur within a framework grounded in pedagogy that has been linked to improved student outcomes and teachers' approach to quality teaching and learning practices.

2.1   Purpose of the Research

The purpose of the study is to examine the extent to which the NSW model of quality teaching is fully applicable in this culturally and socially diverse education context. More specifically, this thesis will assess the applicability of the NSW quality teaching model to determine its relevancy and appropriateness for the Abu Dhabi system in helping to addressing their issue of quality teaching and learning. To achieve appropriate contextual indicators, it is essential to

understand how teachers and school leaders in Abu Dhabi are practicing their day to day teaching and responsibilities, and to explore the extent to which they have met some part of the NSW model's criteria for quality teaching.

One way of doing this is through the use of information and data from professional field observations and analysis of the teaching community and learning environments, and the context in which they teach and manage their schools. A second and complementary way of doing this is by analyzing secondary information and data such as those available through the Ministry of Education and the Abu Dhabi Education Council documents that deal with teachers and school leaders' quality, their understandings of quality teaching and learning, and studies conducted by other entities such as Zayed University, the Emirates Center for Strategic Studies and Research on teachers in the UAE, and the New South Wales Department of Education and Training research on School leaders in Abu Dhabi.

2.2   Aims of the research

The aims of the research are:

i)   To analyze the current state of the Abu Dhabi education system in terms of leadership and teacher quality.

ii) To examine, and describe the applicability of the NSW model of quality teaching to the UAE (Abu Dhabi) school context.

2.3   Research questions

The following research questions guided the study, but others questions have emerged from the analysis and are addressed within the relevant sections.

1. (a) How is quality teaching and school leadership described officially in UAE (Abu Dhabi)?
   (b) Determine if Abu Dhabi has a model, and if so, what are its principles and is it identifiable in the teachers and school leaders' actions?
   (c) How are the principles and dimensions of the Abu Dhabi model exhibited in the students and the schools environment?
   (d) How could the operation of the Abu Dhabi potential model be identified in the interaction between the teachers and the students; and teachers and school leaders?

2. (a) How is quality teaching described in the NSW model?
   (b) How could the operation of the NSW model be identified in the teachers' actions?
   (c) What are the dimensions of the NSW model and how can they be identified in students' actions

(d) How could the operation of the NSW model be identified in the interaction between teachers and students; and teachers and school leaders?

3. (a) What are the current teaching practices and perspectives in the Abu Dhabi school system?
   (b) How are teaching practices reflected in the classrooms?
   (c) How are the students' actions reflected in the classroom?
   (d) What are the interactions between the teachers and the students?
   (e) What are the interactions between the teachers and the principals?
   (f) What are the teachers' perspectives on quality teaching in Abu Dhabi?
   (g) What are the principals' perspectives on quality teaching in Abu Dhabi?

4. Can a Constructivist approach such as the QTM be adapted to an environment that is grounded in a traditional approach to teaching and learning?

2.4   Research Methodology: Background

This study was conducted as a document review supplemented with data analysis from three primary surveys: two conducted with teachers and school leaders in Abu Dhabi Emirate, and one conducted with teachers outside of Abu Dhabi Emirate but within the UAE. The study also relied on other data analysis from the region as the UAE tend not to publish student achievement data, and has only participated in a limited way in the 2007 TIMMS. However, participation was only by one Emirate (Dubai) not Abu Dhabi Emirate or the country, and the country does not participate in PISA data comparison. Documents were identified through an extensive search of books, journals, web-based information and donor agency reports.

Based on the aforementioned guiding questions, a qualitative analytical method was chosen as the most applicable approach to: a) analyze the contextual factors with the Abu Dhabi education system; b) variable such as teacher and leadership quality; c) students and school environment; d) draw comparisons with the NSW model for quality teaching, and finally makes recommendations on the applicability of the NSW quality teaching model. The research utilizes a combination of research techniques: content analysis of official documents, data collected through teachers, school leaders, and parents' surveys, and field observations and field notes. The study also accessed a variety of sources of 'desktop data': that is, data readily available from relevant organizations, in addition to information compiled from library sources and printed materials that were produced locally, nationally and internationally.

The main sources for official education policies and supporting documents are the Abu Dhabi Education Council (ADEC) Abu Dhabi, the Ministry of Education, United Arab Emirates, the

Emirates Center for Strategic Studies and Research (ECSSR), and the New South Wales (NSW) Department of Education and Training, Australia. These sources were used in large part to provide an overview of government intentions and system operations, in addition to insights into the practices undertaken and expected of Abu Dhabi's teachers and school leaders. Nevertheless, and to counterbalance the potentially unreal and unrealistic assessments made in those documents of the actual and potential situation in Abu Dhabi, the major component of the evaluation and analysis uses data gathered from surveys conducted by ADEC and notes collected while working in the field, self perception of system level variables. Using historical and current data to contextualize the analysis, the research focuses on data collected by ADEC and ECSSR primarily, while also utilizing a range of sources including data collected by the MOE, UAE, Dubai School of Government and classroom observation of teachers made by Zayed University's (ZU) Education Department.

The ADEC data consists of four surveys: public school principals in Abu Dhabi, public school teachers in Abu Dhabi, parents' satisfaction and elementary students' grades 3-6. The information was collected through a series of surveys April–August 2009, and posted on the Council's website. The classroom observations were conducted by ZU as part of a series of professional development evaluation of teaching skills and skills gap (Dada, 2007 & 2009). This evaluation obtained data on teachers' and school leaders' competency level in the delivery of the ADEC's new curriculum standards in English, mathematics and science (NSW, Department of Education & Training, 2009). The ECSSR study was conducted through the use of surveys of existing and future teachers, and evaluated the issues of teachers as they relate to teaching skills and gaps, and the need for professional development.

The data are analyzed with reference to contextual factors influencing the schools, teachers and school leaders in Abu Dhabi. This allows for conclusions to be drawn based on the relevant school environments, profiles and cross comparisons of information from the various sources, and a triangulation of resultant data to afford validation. Illustrative examples are used to support the arguments which are drawn from the author's own observations and professional experiences in the field in Abu Dhabi over a seven year period. A central method used in the thesis is anecdotal, which is impressionistic evidence necessitated by the absence of the availability of any sort of sophisticated contextual analyses of the Abu Dhabi education system from which to draw on or make generalizations. This therefore limits the existence or

availability of any comparative education analyses of Abu Dhabi or the UAE versus the New South Wales.

According to York (1998), one way of addressing the issue of validity and reliability is the application of triangulation. Triangulation is a technique used by researchers to facilitate the validation of data through a process of cross verification from more than one source. It refers to the application and combination of more than one research methodology in the same study of the same phenomenon. For the purposes of this research, the research utilized data and information from several secondary sources of research material to provide triangulation: namely data collected from various instruments and sources. Varying methods were used to gather these data: observations, desktop research, and review of documents (Denzin, 1978). Each method allows for an examination of several variables, though each poses some challenges. However, to alleviate the challenge of the potential relative 'subjectivity' of the UAE documents, the data triangulation's qualitative analysis was compared against the dimension, elements and standards of the NSW quality model and inferences drawn. This reduces the UAE centricity of the data and the resultant findings in what is fundamentally a qualitative study.

The core analysis involves review and examination of data on teachers and school leaders in the Abu Dhabi education system. The information collected allows for comparative analysis and provides a measure of qualitative differences and expectations of school leaders and teachers in both Abu Dhabi and New South Wales education systems. Data was drawn from four investigations conducted in Abu Dhabi that utilized surveys, questionnaires and observations that collected and analyzed levels of educators' education and qualifications, including a survey of professional experience, professional development and ability to influence student performance and school improvement. The data and results came from a study of 324 principals conducted by the NSW Department of Education and Training (2009), and one using the Chicago District Performance System of Schools model of 305 principals conducted by Abu Dhabi Education Council (2010). These surveys and matrices were selected based on their content, comprehensiveness, and objectivity; and in addition to school principals they also cover teachers, parents and students at different levels.

Data were also drawn from two surveys on teachers conducted by Emirates Center for Strategic Studies and Research and Zayed University. The ECSSR survey - a study of 901 teachers

working in five education zones along with 765 potential teachers studying in difference colleges, conducted by the Emirates Center for Strategic Studies and Research (ECSSR, 2008); along with classroom observations of 30 grades 1 and 2 mathematics and science teachers participating in science and maths in English project (known as the SAMIE project) conducted by Zayed University, Department of Education (2009). The data were examined using the ADEC's stated aims to determine if the teachers met the requirements expected of quality teachers in Abu Dhabi.

This study also compared the institutional-strategic policies and expectations with international strategies and standards, while keeping in mind the effects of the educational reforms being implemented in the schools. This assists in determining an appropriate expectation of the types of teacher competencies and leadership required for improving school quality and student achievement in the Abu Dhabi context. Data and statistics from additional sources such as OECD, UNESCO, World Bank, Ministry of Education, Zayed University, NSW Department of Education and Training and Abu Dhabi Education Council (ADEC) were analyzed to provide descriptive information and analysis on the qualification and competency of teachers and school leaders in Abu Dhabi.

The resultant information and data were then analyzed and compared against the NSW quality teaching model to determine whether this model is applicable in the Abu Dhabi context and whether it could be an effective framework for assessing quality teaching and learning. This model was most useful in providing standards to show that improved student learning outcomes are dependent on teacher quality in a supportive context. The New South Wales Quality Teaching Model (QTM) was chosen as a potential model by the Abu Dhabi Education Council to anchor its educational reforms. The model is standard-based and addresses both teacher quality and educational leadership: aspects that are crucial to the enhancement of quality teaching and learning and the improvement of schools in general. The impetus behind the educational strategic reform was due to external factors and external views of educational development from a variety of agencies (nevertheless, accepted for implementation by the leading UAE policymakers and the Ministry of Education) have fundamentally informed how the UAE and Abu Dhabi has decided to reform its education system, and thus this led to the trialling of the QTM. Thus there is no need to examine the QTM's natural cultural context in any detail, but some contemporary references to the theory underpinning the QTM and its cultural assumptions are needed.

The strength of the model is in its development, design, structure (architecture) and theoretical groundings. In addition to its structure and theoretical groundings the model provides a framework for assessing quality teaching and learning and applies evidence that shows that improved student-learning outcomes are dependent on teacher quality. To this end, this model offers a desirable approach to teaching and learning and a framework for Abu Dhabi to improve both its school system and the achievement of its students. The model also provides an approach that can be implemented in stages. The structure provides a theoretical perspective on quality teaching and learning and establishes a foundation for both a policy framework and framework for professional teaching standards. It further provides the elements of a continuous professional development framework.

To ensure successful sustainable reforms the Abu Dhabi government needs to identify and implement a tested "developed model of quality teaching practices based on and solidly grounded in theoretical and empirical platforms, such as the NSW model of quality teaching" (NSW Department of Education and Training, 2003; Sakarneh, 2007, p.6). This study was therefore conducted with a view to providing applicable options for meeting some of the challenges and thereby reducing the tension between the policies and the practices of education reforms in Abu Dhabi. There are, of course, cultural differences between the Australian context that developed the QTM and the context of the Abu Dhabi system, but the applicability question was about this model as it stands and the UAE education system as it stands and therefore the thesis is about the cultural context of the 'receiving' system (Abu Dhabi), not the culture of the 'issuing' system (New South Wales).

2.5   Limitations of the Study

There are limitations to the study, the first, is the use of primarily secondary research data. However, this it does not affect the validity and quality of what is primarily a comparative and qualitative analysis and its resultant and tentative findings. The second, is the difficulty in measuring teacher quality, "Teacher quality is a difficult construct to measure adequately and consistently, in the Gulf or elsewhere" (Wiseman, & Al-bakr, 2013). This difficulty in capturing teacher quality in one single empirical measure (Wiseman, & Al-bakr, 2013) has resulted in researchers using and/or comparing a number of components such as teacher education (Goldhaber & Hannaway, 2009); teacher expertise (Danielson, 2011); teacher pedagogy (James & Pollard, 2011); and student performance on standardized tests (Mizell, 2010). The third, is that the study focused on only one of the seven Emirates in the United

Arab Emirates. However, Abu Dhabi is the largest of the Emirates with the largest number of schools, teachers and school leaders, is more advanced in its educational reforms and as such assumptions can be drawn from this analysis across the U.A.E.

2.6   Research Methodology: Application

The focus of the analysis is on the three QTM dimensions of pedagogy:

- Intellectual quality as it relates to curriculum, teachers and school leaders standards;
- Quality learning environment as it   relates to school improvement (best practice), number of students contact hours, over-all approach to education; and
- Significance of student learning as it relates to the process of learning (focus on learning not on memorization), developmental approach for young learners, and high quality student learning outcomes.

The analysis will correlate the information collected and conduct a comparative analysis between the three dimensions of quality teaching as highlighted by the NSW model and provide a measure of the qualitative differences in school leaders and teachers in the Abu Dhabi context.

CHAPTER 3: FOCUS AND CONTEXT OF THE STUDY

3.   Introduction

This chapter deals with the situational analysis within the specific context of the U.A.E. It will identify the challenges faced by the national education system and specifically the quality of the teaching workforce and school leaders. The analysis will focus on educational challenges in Abu Dhabi Emirate with emphasis on the nature of the changing society in the U.A.E., the consequences that these challenges have had on the educational system, and the lack of achievement by Emirati students in particular.

Education systems in the Gulf are routinely criticized because of their low mean student performance on internationally comparative assessments of mathematics and science (Barber, Mourshed, and Whelan, 2007; Wiseman, & Al-Bakr, 2013). This highlight of low student performance in Gulf countries compared to international means (Bouhlila, 2011; Wiseman & Al-Bakr, 2013) has pushed policymakers to respond, and this response has focused on teacher quality as key to educational reforms (Aydarova, 2012). According to Wiseman & Al-Bakr (2013:2) "this response brings the global educational agenda for teacher standards and empirical measures of teacher quality to the fore in Gulf states".   To deal effectively with the identified challenges the country has had to undergo some fundamental shifts in its education policies, teaching and learning methodologies, teacher training programs and educational strategies (ADEC, 2008; 2009).

The UAE lead by Abu Dhabi Emirate began to reassess teachers and school leaders' quality, teaching quality and the empirical measurement of that quality, along with the performance of students and in the long run the development of their human capital and their ability to contribute to the productivity and growth of the country. This level of analysis became evident as many educators, policymakers, and scholars worldwide tie "what students know to professional standards for teachers, and professional standards for teachers are increasingly aligned with global norms and expectations" (Akiba, 2013 cited in Wiseman, & Al-Bakr, 2013: 2). This new emphasis on professionalism required a new focus on the role of school leaders, competencies (pedagogical skills and content knowledge) of teachers and their effects on students' achievement and performance (OECD, 2011; Akiba, 2013, Wiseman & Al-Bakr,

2013); resulted in a drastic changes in the policy makers' vision of the role and importance of education within the Emirate (ADEC, 2009).

To make lasting improvements and transformative changes in the schools, a revised model of education was needed along with teacher education and principals' preparation and qualification criteria. This focus would be consistent with the views of policymakers worldwide who have followed a consistent pattern of content and pedagogical knowledge (Menter, Hulme, Elliot, and Lewin, 2010 cited in Wiseman, & Al-Bakr, 2013) for teacher education. In light of this, the key thrust of this thesis is to take this analysis further by contending that it is paramount that teachers' and school leaders' quality be made a priority, and be made a key component of educational reform along with an analysis of their impact on students' achievement. Extensive research and analysis is required to effectively evaluate the criteria, relationship between recruitment, selection and retention of teachers and school leaders, and quality teaching and learning (Wiseman, Al-Bakr, 2013; Pashiardis, & Brauckmann, 2010; Aydarova, 2012; Brewer et al. , 2007; Ellili-Cherif, Romanowski, & Nasser, 2012). This analysis can provide the foundation for the effective preparation of teachers and school leaders in terms of gaining qualified, prepared and knowledgeable educators who can provide support and achieve successful schools; and in parallel the key criteria that enables an effective quality teaching and learning model.

3.1   Brief country profile

The United Arab Emirates is a relatively new country with an emerging and developing economy. Prior to 1971 the seven Emirates that make up the Federation were under Trucial governance, with most citizens living a simple communal life, primarily as Bedouin communities. In 1971, after the UK withdrew from the region, the nine Gulf States of Abu Dhabi, Dubai, Sharjah, Al-Fujaira, Ras Al-Khaimah, Umm Al-Qaiwain, Ajman, Bahrain and Qatar (while Bahrain and Qatar are part of the GCC they are not part of the UAE Federation) forged an economic and political union to ensure the security and stability of the area. Sheikh Zayed bin Sultan Al Nahayan was elected President of the Federation by the rulers of the constituent Emirates and Abu Dhabi was chosen as the country's capital. In December 1971, the UAE became a member of both the Arab League and the United Nations (Fenelon, 1967). Since the establishment of the Federation in 1971, the seven Emirates comprising the UAE

have forged a distinct national identity through consolidation of their Federal Status and are now amongst the most politically stable places in the region.

The UAE's political system, which is a unique combination of the traditional and modern, has underpinned this political success by enabling the country to develop a modern administrative structure while at the same time ensuring that the best of past traditions are maintained, adapted and preserved. One of the most noticeably significant features of the Federation is that its political stability is intertwined with firm economic foundations and rapid programmatic development. "While there is a tendency to group the predominantly Muslim countries of MENA into one political-economic group, the countries of the Gulf region/Arabian peninsula differ in that all are hereditary kingdoms. Consequently, royal families control all of the key economic assets and allocation of positions throughout government. Most other MENA countries have authoritarian, though not royal, governments" (Weidman, 2011, p.21).

The discovery of oil and the resultant exponential financial growth and associated lifestyle changes propelled the region into rapid and unprecedented change. Only in the past decade have many of these Gulf countries "initiated far-reaching economic reforms to improve the investment climate for the private sector" (World Bank 2008; p. 296). In part, this is due to fluctuating prices and looming depletion of petroleum resources in some Gulf countries (Weidman, 2011, p.21). The population at the formation of the Federation was estimated to be 248,000 and had increased to 3,754,000 by 2002. The proportion of the educated population in 1971 was determined to be 32,800 and by 2002 had risen to 556,500 (Ministry of Planning, 2003).

3.2   Institutional structure

The Supreme Council of the Federation (SCF) is the highest Federal authority. It comprises the rulers of the seven Emirates, and its authority is absolute. All laws and decrees must be ratified by the Supreme Council. It makes all-important decisions of state, and is responsible for the formulation and supervision of all UAE policies. The members of the Supreme Council elect the President and the Vice-President from among their members. One of the challenges that the Federation faces is the balance between the individual Emirates. Tribal culture is still at the forefront of many of the rulers and their community members. This often can influence the degree of change that takes place in the community.

While the country is attempting to operate an effective system of modernized yet patrimonial structure, each Emirate does not accept many of its policies equally. To compound this, the larger Emirates appear to have more power and influence than the smaller Emirates. This influence is reflected in the extent of development and types of programs in certain sectors such as education. In its 40 years of existence, the UAE has undergone profound social, demographic, economic and environmental changes. Revenue from oil, along with a strong vision for the country's future, have allowed tremendous growth in all fields, especially in education. The country's emergence into modernity through an economy driven by oil and gas and more recently, tourism and financial services has influenced and impacted the country's population. Despite accounting for over 70 percent of the population, expatriates do not directly benefit from the affluence of the country (Gaad, Arif & Scott, 2006). "Gulf countries have a long history of importing labor, not just for unskilled jobs but also for professional and technical positions that cannot be filled because there are not enough home country higher education graduates in high demand fields (Weidman, 2011, p. 22).

The United Arab Emirates (UAE) has one of the most aggressive approaches to encouraging foreign investment in the Gulf, but 80% of its population is comprised of expatriates Weidman, (2011, p. 22), research by Chartouni (2011, p.1) found this to be closer to 90%. Most Gulf States remain highly dependent on oil revenues and have not developed very diversified economies (World Bank, 2008). The capacity of governments in the Gulf to "pay good salaries for jobs requiring higher education degrees has enabled them to attract expatriates for jobs that are not filled by citizens. However, most Gulf states also restrict citizenship opportunities for expatriates and limit the number of years they can remain in a country and be employed" (Weidman, 2011, p. 22).

This new economic situation which created immense wealth for a small portion of the population also created a dichotomy for the country's leaders: establish a social welfare state where citizens are reliant on the government for their care, or develop strategies and systems that will ensure the advancement of both human and social development for all. Sheikh Zayed, as acknowledged father of the country, recognized and understood the reality of the new Federation and the need for the population to see beyond the immediate and plan for the future. His view for the country was to share the wealth, develop human potential and give the population the skills to survive beyond the immediate opulence and accessories of oil wealth. In his 1982 statement he said; "Human resource is the State's most precious possession and the

most important source of wealth that this nation has. Therefore, investment in human resource development is one of the utmost priorities of national investment" (Al-Nahyan, 1982, p.1).

The link between education and a country's economic growth has been studied extensively and the relationship between the two has been cited as a primary reason for increased investment in education and specifically higher education (Abdulla & Ridge, 2011). Becker (1964) and Schultz (1971) hypothesized that increased levels of education and training lead to greater national productivity and higher earnings. The implication of this theory is that demand for education should be higher when returns exceed opportunity costs of foregone earnings, assuming that individuals are making choices based on all available information (Abdulla & Ridge, 2011).

Although empirical findings from a number of economic studies support human capital theory, there are limitations to the theory (Abdulla & Ridge, 2011; Becker, 1999; Davies, 1999; Share, 1999; Badran, 1999; Otero, 2007). One of these limitations is the inability to explain for an entire population the convergence between economic gains and achievement in education. Abdulla and Ridge (2011) explain the inability of the theory to explain the greater economic returns realized by higher socioeconomic classes largely regardless of education. This wrongly is due perhaps to the social and cultural capital that they possess but it's not clear. Such is the situation in the UAE but in a reverse sense; the uniqueness of the UAE context is that there is no apparent link or interrelationship between educational attainment and economic growth, and the relative wealth of the population.

At the first graduation of students from U.A.E University, the President articulated his views for educating the nation and how to get its citizens to recognize and accept the concept that the true wealth of the nation rested in the education of its citizens. He stated, "The enlightenment of human beings is a difficult task. They are our real achievements. We have been waiting for such a great day to collect the harvest of what we planned. We have a precious treasure now. I believe that human beings are our true wealth. It is the achievement of successive generations that will be of great help to all our Arab brothers" (Al-Nahyan, 1982, p.1). Educating the nation became a priority for the President, along with the recognition that it would be a challenging and difficult task. It was recognized and acknowledged that change was necessary; however, *having to change* and *wanting to change* were two different things. Within a

developmental context, changing peoples' ways of thinking is a major challenge to the implementation of any reform.

Re-orientation of an entire population's thinking towards education when economic wealth was abundant became a daunting challenge for the country's leadership. By all accounts the President recognized the existence of these difficulties and articulated a well-defined vision for his country's progress into the global market. The President's vision for an educated nation was one that would propel its citizen's aspirations above wealth to become a strong, knowledgeable and caring nation, striving to achieve greatness. He stated, "The weight of a country should not be measured by its wealth, since wealth is just a means to achieve great ends that cannot be realized without education and the country's ability to provide decent life to its people. We in the UAE pay special attention to education and educators in all fields" (United Arab Emirates Yearbook, 2003, p.213).

The discourse on the perceived returns on education has progressed in developed and many developing countries, however very little has occurred in the Middle East and North Africa (MENA) region. The World Bank MENA Report on Education cites a study by Pritchett (1996) who found that while education had a positive impact on economic growth in Asia and Latin America, in the MENA region it produced a negative impact (World Bank, 2008; Chapman, & Miric, 2009; Salehi-Isfahani, Hassine, & Assaad, 2012; OECD, 2011). A further study on education in the region found that the initial level of education was not a significant determinant of growth for the MENA region (Fattah et al, 2000; Salehi-Isfahani, Hassine, & Assaad, 2012; Mauroun, & Samman, 2008; Chapman, & Miric, 2009; Ibrahim, 2010; OECDD, 2011).

A growing number of policy-oriented reports dealing with human resource development and national competitiveness discuss the impact of educational reform and the importance of effective transformation of teaching and learning in the GCC, as well as other nations (Becker, 1999; Badran, 1999; Share, 1999). The World Bank's report, The Road Not Traveled: Education Reform in the Middle East and North Africa tackled questions concerning major investment and minimal results in the education sectors throughout the MENA region. "Indeed, economists have begun to identify the long-term costs of poorly designed or mismanaged educational reform efforts worldwide (see e.g., The High Cost of Low Educational Performance: The Long-run Impact of Improving PISA Outcomes). Further, the UNDP's Arab

Human Development Reports and the two Arab World Competitiveness Reports speak to education-related issues at varied levels of specificity and discuss matters that relate directly to the impacts of failing to develop a nation's human capital for the knowledge economy"(Bindon, & Lane, 2011).

The reports further acknowledged that it was difficult to accept that there was no positive association between education and economic growth. Abdulla and Ridge go further to suggest that one of the explanations for the lack of evidence of a relationship may have to do with the quality of education, which includes the capacity of workers to innovate or adopt new technologies (Abdulla & Ridge, 2011). The relevant literature maintains that there is a direct relationship and positive returns between higher education and economic growth, however it is difficult to envisage this link in the Gulf region, and the UAE specifically, due to the complexity of the social and cultural issues that exist within the country (Salehi-Isfahani, Hassine, & Assaad, 2012; Mauroun, & Samman, 2008; Chapman, & Miric, 2009; Ibrahim, 2010; Bindon, & Lane, 2011; Barber, Mourshed, & Whelan, 2007, OECD, 2011; Mograby, 1999; Benjamin, 1999). In the first instance, while women are increasing access to higher education they are limited in their access to employment. In the second instance, men are less likely to enter higher education and are more likely to withdraw and seek other options of employment.

The issue of male under-participation in education generally and in higher education specifically, is a major challenge for the country's progress, both socially and economically. Fattah et al's, (2000) study found that in societies where the quality of education is low and public sector employment is high, individuals often make distorted educational choices. One significant factor they found that could be affecting the decisions of males regarding attending higher education is a perceived lack of economic benefits from undertaking higher education. A further study into the reasons why males admitted into public higher education institutions in the UAE do not show up, found that the largest percentage has better options such as the police or military, and the next largest group opted to work in the family business or stayed at home. They contend that "UAE males perceive that the nominal gains achieved through higher education are not enough to offset the rewards of going directly into employment" (Abdulla & Ridge, 2011, p. 5). While this is a widely held belief there is currently no empirical evidence to support this theory, but based on the number of males employed in the public sector without higher education, a plausible inference could be drawn.

Another explanation of the low engagement of males in higher education is linked to what is Minnis (2006) termed "rentier" or "rent-seeking behavior" that is thought to characterize resource-rich nations like the UAE. Minnis (2006) believes that educational underachievement in the Gulf States may be linked to a rentier mentality which is characterized by a disjunction between educational effort and probable reward. In rentier economies, rent refers to financial income that is not matched by corresponding labor or investment. He contends that in Gulf States, "the relationship between the citizen and the state is fundamentally different from that found in non-resource based societies" (Minnis, 2006, p.985). In the Gulf States the extraction of oil accrues rents to the ruling families who in turn distribute this wealth to their citizens in the form of education, housing, healthcare and other benefits. This in turn tends to distort the work-reward causation evidenced in less resource-rich countries (Beblawi & Luciani, 1987). This according to Abdulla and Ridge means that the reward for labor income is no longer connected to work efforts (Abdulla & Ridge, 2011).

Evidence of an ever-increasing public sector in the Gulf States and especially in the UAE is reflected in the number of work creation projects for nationals and the preferences of nationals to work in the public sector due to higher wages, shorter working hours and early retirement benefits (Abdulla & Ridge, 2011). It has been reported that in the GCC, nationals in the public sector account for 58 percent of total nationals employed in 2007. In the United Arab Emirates 86 percent of nationals are employed in the public sector, which is one of the highest percentages within GCC countries (Arab Times, 2009; Salehi-Isfahani, Hassine, & Assaad, 2012; Mauroun, & Samman, 2008; Chapman, & Miric, 2009; Ibrahim, 2010;Wiseman, & Al-bakr, 2013; Chartouni, 2011). It has been argued that this over-investment in the public sector distorts the perceived returns to education, leading to lower productivity and educational attainment in countries such as the UAE, where competition for public sector jobs is low (Chartouni, 2011). According to Abdulla and Ridge (2011) it has the effect of de-linking educational attainment and employment and leads to an uncompetitive labor market. It could further be argued that it was this effect of the rentier state, coupled with sociological variables and their potential impact on education in general, and concern about the developmental progress of the country that drove the President's reform agenda.

To facilitate this vision, the government enacted decrees (laws or legislations) that would ensure that education was identified as a priority and consequently, provided free to citizens (Emiratis) at all levels of the system. The culmination of this policy is evident in the figures for

the academic year 2001-2002, which estimate that approximately 322,250 students were being educated in 747 government schools and 234,250 in 426 private schools (United Arab Emirates Yearbook, 2003). In 1971, the year the UAE Federation was established, there were only 74 schools with 32,800 students in comparison by 2002 556,500 students were enrolled in both private and public schools (Table 1) operated by the Ministry of Education. A further 3,784 married women attend 18 educational centers administered by the General Women's Union (United Arab Emirates Yearbook, 2003).

Students enrolled in Ministry Schools

Table 1
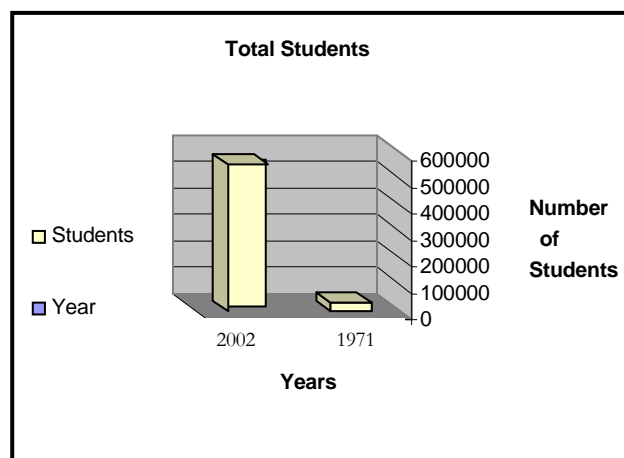
The current education system of the UAE, in comparison to other countries, is relatively new. It has both a private and a public sector; and primarily the government funds the public sector schools, as all Emiratis education is paid by the government. All UAE nationals have access to public education, which is grounded in Islamic and Arabic practices. However, education in general (private and public) is available to all Emiratis and is financially supported by the government. "All mainstream public education is conducted in single gender classes and expatriates are not admitted" (Gaad, 2001, p. 293; Bindon, & Lane, 2011; Barber, Mourshed, &Whelan, 2007; Wiseman, & Al-bakr, 2013). The data also show that a large number of students, primarily males, are sponsored to attend higher educational institutions, usually overseas. The full costs of the scholarships are covered by the government. Upon completion of their education they are expected to return and contribute to the development and advancement of the country.

3.3   Overview of the education system

The issue of education and the need for a skilled workforce became an identified national priority when the economic and political situation of the time catapulted it onto the national agenda. With the advent of oil wealth and increased government revenue and the associated challenges of industrial development, instability of oil prices and political instability in the region, the issue of a trained workforce became a priority for the country. This tumultuous period highlighted the vulnerability of the country, and the potential impact that political crisis and instability in the economic market could have on its stability, growth, and economic viability. The U.A.E leadership, forced to realize the limitation of its resources, had to rethink and realign the country's vision for economic development, growth and sustainability to ensure adequate support to its citizens and economic growth for the country.

During this transition period the population increased from 248,000 in 1971 to 1.04 million in 1980 (Ministry of Planning, 2003). Most of this increase however was due to immigration, which reflected in an increase in the number of private schools that were opened to meet the religious, cultural and educational needs of the new demographics. This increase in population had both positive and negative consequences on the society, the dichotomy being economic growth that exploded exponentially creating more wealth for the nationals, while at the same time decreasing their motivation for education and work-related income. This in turn impacted on the actual growth of the economy as most of the money earned by expatriates was being spent outside of the country.   The increase in the expatriate workforce also created pressures and demands on the country's infrastructure. It became evident that the desire for a skilled and educated national workforce within a wealthy economy was not an easy agenda on which to get consensus.

Educational reform, while necessary for global competition, was not perceived as necessary for those in the higher economic echelon of the society and not a straightforward plan to sell to the population (ECSSR, 1999). The realities of the country's future needs and the newly acquired wealth of the population became a challenge of balance. The advent of societal and individual wealth saw a decrease in the indigenous populace's contribution to the country's development and an overwhelming increase in the use of migrant expatriates as both skilled and unskilled workers. The task of developing the education, skills and competencies of the workforce and building support for the new economic realities became a tremendous challenge for the Ministry of Education and Youth (MOEY), and the country as a whole.   Restructuring of the

education system to ensure that training would meet the required competencies and skills necessary to meet the new market economy became an enormous task for the country's leadership and its institutions.

By the 1990s the country had arrived at a crossroads, and the government recognized that to move into the 21st century it must adapt like most other countries, and this begins with a reform agenda. To upgrade the existing education system reforms were needed in all areas and needed to address not only the level of education but also the quality of education. These reforms laid the foundation for enhancing the country's economic growth and sustained human development (Welch & Mawgood, 2000). The existing educational structure for primary and secondary education was established in the 1970's, and is a four-tier system covering 14 years of education (Gaad, Arif & Scott, 2006, p. 293).

- Kindergarten-age level from 4-5 years old (recently added to the tier)
- Primary-length of program in years: 6, age level from: 6 to 12
- Preparatory-length of program in years: 3, age level from: 12 to 15
- Secondary-length of program in years: 3, age level from: 15 to 18 (Certificate/diploma awarded: Secondary School Leaving Certificate)
- Technical Secondary School-length of program in years: 6, age level from: 12 to 18 (Certificate/diploma awarded: Technical Secondary Diploma)

There is some flexibility and modifications are possible within this structure as each individual emirate can to a certain extent decide on the comprehensiveness of its structure. Abu Dhabi emirate is the largest of the seven emirates comprising the United Arab Emirates. It has three geographical regions corresponding with three education zones: *Abu Dhabi Education Zone* (ADEZ); *Al Ain Education Zone* (AAEZ); and *Western Region Education Zone* (WEZ). ADEZ is the most densely populated, followed by AAEZ and WEZ. The three regions are currently administrated and managed by ADEC. Prior to 2007, all education zones were managed by the MOE (MOE, 2007; Gaad, Arif & Scott, 2006).

The Abu Dhabi *school system* is comprised of 305 *public schools* and 184 *private schools*. Public schools are structured into several different categories which include *Model schools.* These are types of public school which have "selective entry" enrolment requirements. Students are admitted with grades at or above the 70-percentile level. English is the language of instruction for mathematics and science, and is the first of the reform initiatives to attempt school improvement and English language skill. These schools have been teaching in the English language for a number of years in most grade levels. The schools are for national

students who demonstrated high levels of achievement in the general government public schools and on the entry assessment.

Al Ghad schools (literally translated as 'School of Tomorrow') are public schools and are distinguished by an integrated primary curriculum and the teaching of mathematics, science in the English. *Public Private Partnership* (PPP) *schools* are schools operated and managed by both government and private companies. In this case, PPP refers to arrangements whereby private sector partners in collaboration with the public sector provide support and services to the public schools. This partnership is based on professional capacity and the experience of the private sector. PPP operators currently support all Cycle 3 schools as well as some Cycle 1 and Cycle 2 schools) and *regular government schools*, sometimes referred to as general government schools, are public schools in which the majority of schools follow the MoE curriculum and are not managed by a PPP operator (Abu Dhabi Education Council, 2009; MOE, 2009).

Private schools include two types: *villa* and *non-villa*. *Villa schools* are a type of private schools that operate out of a building designated for residential use only and *Non villa schools* are a type of private schools that operates in a building designated for school use (Abu Dhabi Education Council, Education Statistics First, 2010). The main distinctions between *villa* and *non villa* schools are villa schools are usually operated by expatriates for expatriate (unskilled workforce) students of similar culture and language; curriculum' is aligned to related curriculum in the countries of origins; and language of instruction is relevant to nationality. It is very unlikely to find Emirati students in a villa school.

The public schools distribution is as follows: 44-KG (level of education for 3-6 year olds and is the entry point into formal education: kindergarten falls under the larger category of early childhood education programs), 91-Cycle 1(commonly understood as Grades 1-5:in other systems, this phase of education may be referred to as primary school or elementary school); 62-Cycle 2 (commonly understood as Grades 6-9:in other systems, this phase may be referred to as lower secondary, middle school or junior high school); 46-Cycle 3 (refers to the final grades and is understood as Grades 10-12:in other systems, this may be referred to as secondary or high school); and 62-Combined (which refers to Common cycle schools and is commonly understood as a mix of grade combination that does not follow the same structure as KG, Cycle 1, 2, or 3). The private schools distributions are: 8 KG and 176 Combined

(Education Statistical First, ADEC, 2010). The following tables show the distribution of students across the grades and the types of schools in Abu Dhabi Emirate (ADEC, 2010).

Number of students in public schools	
KG	10,294
Cycle 1	39,809
Cycle 2	29,324
Cycle 3	23, 284
Combined	23,583
Total	126,294

Table 2A: Student enrollment in public schools

Number of students in private schools	
KG	32,396
Cycle 1	74,281
Cycle 2	39,114
Cycle 3	19, 229
Total	165,020

Table 2B: Student enrollment in private schools

Of the 291, 214 student population, 133,138 are nationals and the majority are registered in government public schools; and 158, 076 are expatriates and are registered in private schools. The differences between the private and public systems are the following: public schools only accept Emirati students, have a government approved curriculum, and the teaching workforce is employed by the government (Ministry of Education or Education Councils) (MOE, 2009; ADEC, 2010). It is of note that while most of the resources are provided to government public schools, private schools are perceived as high performing with high student achievement and delivering quality education.

3.4   Past research and frameworks

To create momentum towards educational reform and facilitate the process toward realizing the vision of an educated population and the development of a skilled and knowledgeable workforce, the Ministry of Education and Youth (MOEY) organized and chaired the *First International Conference on Educational Reform in the UAE* in 1999. The conference was the start of a dialogue with other countries and experts in the field of education on how to address the issues and challenges of introducing desired educational reforms. The conference also became the platform for strategizing how best to reshape the U.A.E. education system and re-structure the goal of education.

Dr Ali Abdulaziz Al Sharhan, Minister of Education and Youth stated, "The conference and proceedings were a response to His Highness Sheikh Zayed's call for the promotion of societal organizations that raise performance efficiency and productivity" (Welch & Mawgood, 2000, p.1). These, the Minister felt, reflected the basic pillars of action for the development of education in the UAE. The conference was used to launch the MOEY Strategic Vision for Educational Development. This document detailing the MOEY's vision and strategies became known as 'Education Vision 2020'. The MOEY's leadership recognized that to achieve success and have the school systems embrace change they needed a national agenda and an agreement on priorities. These priorities were structured around overall educational reforms and measurements of success, articulated in a succession of five-year plans. The goal was to equip students with knowledge and competencies to enable them to contribute to the development of the country. "B*y the year 2020 the Ministry of Education and youth will have graduated all students from its schools equipped with the knowledge, skills, competencies, learning styles and commitment to national development that enable them to secure the future prosperity of the people of the United Arab Emirates"* (Ministry of Education and Youth, 2000, p.9).

Vision 2020 was based on an "effective strategic planning model" and was designed to flow with the continuous improvement consistent with changing conditions both within the educational system and the society (Bryson, 1995). The policy document was planned to go through an evaluation every five years along with defining and developing the next step (Gaad, Arif & Scott, 2006). The first stage of the restructuring focused on the education system and a re-conceptualization of the role of education. The desire for comprehensive overall reforms intended to expand the knowledge base of the population, develop skills and competencies in the workforce, and accomplish a shift in cultural and societal expectations, proved to be too much of a challenge for the Federation and so the strategy was not fully operationalized.

So, more modestly, the focus of the reform framework became to raise teacher quality, improve student achievement and create effective learning environments across the UAE. The new proposal and strategy recognized that the existing system was not on par with contemporary international educational policies, programs and best practices. It also recognized that teaching methods were outdated and followed a traditional view of teaching and learning (International Educational Organization, 2005). In 2005, the reforms were again modified, this time under new leadership. The Reform Committee, later renamed the Office of Education Support (OES), was established to develop a comprehensive framework for achieving a world-class education

system and guaranteeing children of the UAE quality education. The premise of the policy document was that education in the United Arab Emirates is at a moment of important change. It promoted standards-based and student-centered schools, integrating technology with learning, the use of technology for the management and accountability of all levels of the system, and changing from a civil service system of employment of educators to a professional organization.

The report stated that, "in the country's early years, a system of universal, free government education was developed rapidly and with considerable success" (Office of Education Support, 2005, p.2).   However, the system needed to progress beyond this early progress and advance a robust modern system to ensure continued growth and progress. The OES asserted that the time was right and the country ready for a modernized system to better serve the modern needs of the country and bring achievement levels of students into line with international standards. The OES strategic framework proposed a new vision and goals aligned to the new legislative and policy changes and the appointment of a new Minister of Education. The focus of the new strategy was quality and standards and to enable the MoE to be the leading edge of systematic education reform throughout the country. The OES proposed six essential elements for reforming the school system. The initial implementation would take place in Abu Dhabi schools with plans for further roll out across the other Emirates. The six elements targeted for reform were:

1. Creating student-centered learning
2. Constructing and rehabilitating schools
3. Developing demonstration schools
4. Supporting pilot projects
5. Developing modern infrastructure
6. Supporting the Office of Education Support (Office of Education Support, 2005, p.2-3).

The OES policy document, unlike the Vision 2020 reform document, was more focused on specific aspects of the educational system that required changes and targeted the overall improvement of students. It was structured on whole-school reforms and best practice model rather than on a strategic planning framework.

The strategic framework for whole school and teacher improvement reforms suffered a similar outcome to the vision 2020 plan and was abandoned due to the high financial costs and lack of adequate progress, primarily of staffing. The leadership recognized the enormity of the issues

and some of the foreseeable implementation challenges of a whole school reform, which ultimately affected the implementation of the initiatives as the risk of incompletion was determined to be too high. One of the major challenges confronted by OES framework was the enormity of the proposed reform initiatives and the extent to which these reforms would take place outside an agreed model of education. As the leadership and policymakers struggled with low students' achievement; high male dropout rates, and continued use of outdated curriculum and resources, the population demographics continued to grow (Abu Dhabi Economic Vision 2030, 2008; Ministry of Planning, 2003; Abu Dhabi Education Council Strategic Plan, 2009).

As the country's wealth increased, there was a resultant shift in the population growth. Statistics show that the country's population had the largest surge between 1980 and 2003 in which the population changed from 1.04 million to nearly 4.04 million (Ministry of Planning, 2003). This increase in economic and industrial growth created a higher demand for a larger workforce both skilled and unskilled. The country's increased need for knowledge and expertise created a reliance on expatriates to provide the kind of skills and expertise the country needed. This reliance on an imported workforce along with the rapid growth of the Emirati population resulted in a ballooning of the population, which ultimately impacted the education system's ability to deal with the increase.

During the initial influx of migrant workers, all school-age children could register and attend government public schools (MOEY, 2008). However, due to the rapid growth of the population and specifically school-age children, the system was overwhelmed and created immense challenges for the government. The system was unprepared for the massive increase both in terms of infrastructure and teaching workforce; ultimately the leadership implemented a policy restricting registration into government schools to only Emirati students. In an attempt to address the growth of the education system the government looked outside the country for viable alternatives, adopting a practice of recruiting foreign trained teachers and school leaders to meet this new demand, the majority of whom were un-qualified and inadequately trained (ADEC, 2008).

The strategies envisaged in both reform frameworks for the restructuring of schools, upgrading of training and qualifications of teachers and school leaders, and effective teaching practices were central to the long-term improvement of quality education and the education system in

general. However, while the identified reforms were considered crucial to the improvement of students' achievement and success of schools, the government found that is was unable to advance such an extensive reform agenda. In reviews of previous educational reform initiatives undertaken by ADEC (2008; 2009) the analysis indicated that the policymakers and ministry leadership found the plans and the strategies daunting, not only in their implementation but also in the extensive processes and human resources that were required to achieve the desired goals. It is of note that while the previous reform frameworks recognized the need for a student-centered approach, and improvement of teacher training and qualifications, none of the strategies actually proposed or recommended the need for teacher standards, or a mechanism for professional certification as a means for identifying quality teaching practices or verifying teachers' competencies or qualifications. Most of the initiatives proposed or attempted focused on the re-engineering of the system, management and accountability mechanisms that would have had little impact on the quality of teaching and learning or the improvement of schools.

There were many limitations to the reforms that had been attempted; in the first instance too many initiatives were attempted in a short time without adequate knowledge, expertise and resources to ensure effective implementation. The review also found that there was little or no commitment within the system for the proposed reforms. The leadership also did not have full commitment from key stakeholders (teachers, school leaders and zone directors), which resulted in passive and reluctant acceptance and at times subversion from the teaching workforce and the local leadership, i.e. the zone directors; and finally there was no commitment to the long term plan by the national or local emirates leadership (ADEC, 2008; 2009; MOE, 2009). There was an assumption that improvements in the quality of teaching and learning would occur as a by-product of improved efficiency and accountability, and so no indicators for measuring success of the strategies was instituted.

Research shows that to make meaningful changes individual issues need to be addressed as a primary target with appropriate and connected resources and implementation strategies and plans (World Bank, 1995; World Bank, 1998; Hall & Loucks, 1977; Fullan, 1991; Fullan & Hargreaves, 1992; Lighthall, 1973; Cuban, 1988; Tyack, 1991). To change teaching and learning, strategies have to be formulated with the specific targeted areas in mind, along with identified specific change outcomes and the expected impact that the outcomes will achieve (World Bank, 1995; OECD, 2010; OECD, 2012). This part of the process however, was

undertaken and included in the UAE's restructuring agenda and initiatives, which affected the progress of the system's reforms.

3.5   Challenges within the system

Many of the challenges and issues faced by the UAE education system are quite unique to this region and the country. Like its economy, the country's educational system is both emerging and developing exponentially. Past research have analyzed the UAE education system and found that despite adequate funding from the government, the public education system is not very effective (Shaw et al., 1995), and the traditional educational approaches are insufficient. Muhanna (1990) and Ridge (2009) have noted that the dropout rate and repetition rates are higher in the UAE than any other gulf states, while Badri (1998) also points to an acute situation with attrition rates in the public schools. The current system is dealing with overwhelming challenges, one of which is the vast majority of expatriate teaching staff. This issue on the surface appears to be comparatively insignificant, however by its depth and proportion has created the biggest challenge for not only the government in its attempts to improve the quality of education, but its attempts to improve the education sector in general.

In summary, these challenges include a growing student population, high student drop-out rates, especially among males, high repetition rates, low school completion rates of males, high under-achievement of students generally, variable quality of teachers and school leaders, irrelevant curriculum and the lack of a professional development framework. Since this research is focused on a quality-teaching model and best practices, I will concentrate on the primary challenges that could be impacted by the effectiveness of the model.

3.5.1   Student population

The primary challenge the country and the education system faces is the rapid growth of the student population forcing relative rapid growth of the system. In 2003 the UAE population was estimated to be 4.04 million of which a quarter were children. Of this group over one million were estimated to be under the age of 15 years and an additional 2.2 million between 15 and 40 years. The expansion of schools to meet the national goal of accessible education for all communities in all geographic locations placed a tremendous burden on the system.

This explosion in school age population saw an increase in school facilities from 74 to a record 1,173. This represents growths of 1585 percent or 16 fold in school facilities and 1708 percent

in the student population (Ministry of Planning, 2003). Due to the internal shortage of Emirati teachers, the government turned to other countries, primarily Arabic speaking ones for a solution. That solution was the recruitment of a foreign workforce of teachers and school leaders to staff the schools. The student population in Abu Dhabi Emirate consists of 126,294 students in public schools and 165,020 students in private schools. Of the 291, 214 student population, 133,138 are nationals and the majority are in government public schools and 158, 076 are expatriates and are registered in private schools (Abu Dhabi Education Council, 2010). The following table shows the number of students in the type of schools in the three regions.
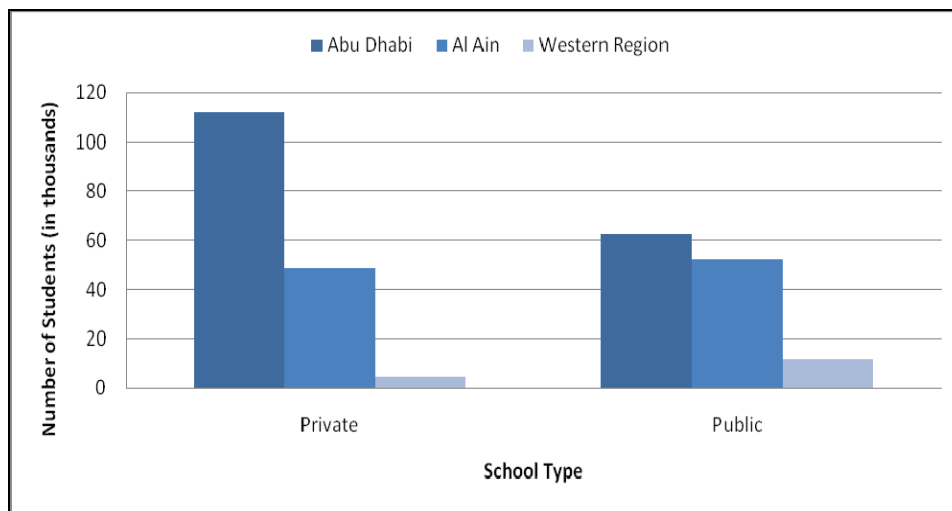

Table 3: Number of Students & School Type

In addition to the growth of the school aged population, the policy makers were concerned about the lack of performance of students and the education system in general. According to ADEC (2009, 2010), the education system appears to suffer from a malaise in the performance and progression of its students. Most notable has been the high dropout rates and repetition rates of students, primarily boys (Abdulla & Ridge, 2009). Muhanna (1990) also noted that the high dropout rate and repetition rates were higher in the UAE than in any other Gulf States. This was further supported by Badri (1998) findings that points to an acute situation with attrition rates in the government public schools. Davies (1999) points out that even in "many developed, democratic countries, educational triage is widely practiced. This means that from 20-30 percent of the students are not expected to achieve much academic success in school" (p. 10).

One of the challenges is that there are few studies conducted and/or released on students' performance in the UAE and therefore it is difficult to obtain data that can be analyzed and

compared both within the country and outside. While there is a growing recognition of the need to assess the performance of educational systems, limited data makes it difficult to assess the past performance of student achievement throughout the Gulf region. However, many nations have recently begun to participate in international assessments such as the Trends in International Mathematics and Science Study (TIMSS), which compares the learning achievement of students in different grades among participating nations. "While the recent data evidences the need for further enhancing the learning experience of students throughout the Gulf, it is important to note that new data is becoming available; thus, allowing groups such as McKinsey & Company to include GCC countries in international education research like the 2007 study, How the World's Best Performing School Systems Come Out on Top . Yet, research about education in the GCC remains limited and there is little focus on the impact of reforms on students" (Bindon, & Lane, 2011). One known study was conducted by Ridge in 2008 and while the study was not conducted in Abu Dhabi Emirate some conclusion can be drawn across the system.

Ridge (2008) found that 14 percent of boys dropped out in Grade 10 in Ras Al Khaimah Emirate. She also found that across the Gulf and in the UAE males were performing poorly across all subject and grades (Ridge, 2008; 2009, p.6). The data also show that even in subjects typically associated with male advantage, such as mathematics, girls were outperforming boys (Ridge, 2008). This is illustrated in Table 4 below, showing data from Ras Al Khaimah, collected by MoE for the 2006/07 academic year, demonstrating that girls outperformed or equaled boys in every grade and subject (Ministry of Education, 2007; Ridge, 2008).

Table 4: Pass Rates by Gender and Grade in the Emirate of Ras Al Khaimah 2006/07

Subject	Grade 10		Grade 11 Science[1]		Grade 11 Arts		Grade 12 Science		Grade 12 Arts	
	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls
Arabic	77	96	99	100	88	98	94	100	79	93
English	84	97	98	99	68	81	93	99	56	82
Mathematics	62	87	95	99	92	100	92	98	82	98
Biology	79	96	100	100	94	99	88	96	82	97
Geography	80	96	n/a	n/a	95	98	n/a	n/a	90	97

In the UAE, Grades 11 and 12 follow two separate streams, an arts or a science stream, which students select at the beginning of Year 11. Generally, it has been perceived that less able students select the arts stream, while the more academically able students select the science stream. In addition, geography is not considered a science subject and is part of the arts stream, and is therefore not available or taken by students in the science stream. While this might not

be a problem in well established education systems it could potentially be a problem for the UAE system as it further limits access and choices to students who are already underperforming and underachieving such as male students.

3.5.2 Quality teaching, teacher qualifications and training

Issues of quality teaching, lack of a teacher qualification structure and an effective preparation system have been identified as major challenges within the UAE education sector. As a result of its exponential growth, the country has had little time to fully absorb the magnitude of the challenges and to determine the appropriate resources, mechanisms and procedures required to establish and sustain a quality-teaching workforce.

The Ministry of Education & Youth (MOEY), unable to meet the needs and demands of the growing population, grew more reliant on expatriate educators. The strategy while initially beneficial to the country, subsequently disadvantaged the system due to its negative impact on the employment of Emiratis, primarily females, and an increased number of unqualified and untrained teachers in the system. One of the strategies initiated by the government to address the imbalance was an affirmative action policy that established a priority employment scheme for Emiratis, combined with special incentive packages especially for males willing to join the teaching workforce. The *Emiratization* policy was implemented to address the disparity of Emiratis in the various sectors and to combat the high unemployment rates. With this policy the MOEY had hoped to invest more in the recruitment, training and retention of UAE nationals as teachers and school leaders, increasing the employment rate of Emiratis, and with a resultant decrease in reliance on expatriates.

The policy has been most beneficial in the schools' administration and the hiring of school leaders. While the system in general still relies on expatriate teachers, the legislation affirms that the position of school leaders is to be exclusively UAE nationals. The consequence of the new policy was a dramatic decrease in the number of expatriates in school leadership positions. By 2004-2005 there were 1,653 school leaders in the UAE: 736 principals and 917 vice-principals distributed among the seven emirates. Of the 736 principals 48 were expatriates and 688 nationals, of this number 484 were female nationals, with 15 expatriates; and of the male, 204 nationals and 33 expatriates (Ministry of Education, 2005). The expatriate school leaders were primarily located in the northern emirates and in rural schools. All expatriate school leaders were subsequently removed from the Abu Dhabi system by 2009.

While the country was able to deal relatively effectively with the hiring and deployment of Emirati school leaders, the teaching workforce proved a more difficult challenge. The dependence on overseas trained teachers, while required to meet the demand, was having an adverse effects on the system due to the quantity of unqualified and under-educated teachers. This deficiency in teachers' pedagogical knowledge and competencies, the education system officials and policymakers emphasized, was failing to advance the achievements of the students (ADEC, 2009; MOE, 2009; ECSSR, 2008), resulting in creation of a warehouse-style environment rather than an enriching learning environment. The leadership's view was that the quality of the overseas trained teachers was detrimental to the quality of their education and insufficient to advance the reform agenda.

The country has no structure for the certification of teachers' qualifications, especially those trained overseas; and no quality assurance mechanisms to monitor or evaluate the performance of teachers or school leaders. The MOE has a minimum requirement for hiring teachers; however it has no processes in place to determine the validity and quality of teachers' preparation, qualifications and experience.   This lack of an evaluation and monitoring structure had resulted in the employment of unqualified teachers, some having only a high school certificate or diploma (MOEY, 2008; ADEC 2009), which is incompatible with both the government's policy expectations and established international standards and benchmarks for quality teachers.

Based on MoE data the majority of teachers in the system have a degree or a diploma in a subject area, but the majority have no training in teaching, pedagogy or educational methodology (Ministry of Education, 2007). A study by the Emirates Center for Strategic Studies and Research (ECSSR) found that 67 percent of male and 55 of percent female teachers have only a first degree (B.A.) and were not considered qualified under the new MoE teacher qualifications criteria. It further found that only 10 percent of the teaching workforce had a degree in education, and these were likely to be new Emirati graduates (Emirates Center for Strategic Studies and Research, 2008).   According to the Ministry of Education policy, the minimum requirement for those interested in becoming teachers is a degree in a subject area, however it does not specify a degree in education. The practice of the education systems in the Middle East generally, and the UAE alike, is to hire subject specialists (Ministry of Education & Youth, 2000). While this ensures that individuals have a subject specialization and associated discipline knowledge, there are few opportunities for potential teachers or teachers in the

system to obtain teacher qualifications or pedagogical training appropriate for the relevant grades.

The practice has been to hire teachers from Arab countries with subject specialization in areas such as English, maths and science. Those teachers hired to teach subjects where the expectation was that the language of instruction was English were disadvantaged since for the majority of expatriates English was their second or third languages (ADEC, 2009). In addition, due to variation in Arabic dialectics across the region, even the country's primary language, which requires high level of language skill due to its connection with the country's religious teachings, began to suffer (ADEC, 2009; 2010). The consequences of these strategies would ultimately have serious implications for students' achievement, performance of schools and the performance of the system.

3.5.3 Professional development

Due to the high proportion of expatriates to local teachers in the system, and the perception and expectation that expatriate teachers met the minimum qualifications, the government did not envisage the need for additional training and development. No provisions or support for professional development are in place for either existing or new teachers and school leaders; nor does the system have a mentoring or induction program. The implementation of the Emiratization policy created further challenges as the policy made it difficult for any support or opportunities to be provided to expatriate teachers, as the policy dictated that only Emiratis (teachers and school leaders) were eligible for government support for professional development. Given that an estimated 87 percent of the country's teachers are expatriates, it would appear that the policy and practice of only training nationals does not favour the majority of teachers who are responsible for teaching at all levels and grades across the system (MOEY, 2008; ADEC 2009).

3.5.4 Supervision of teachers

Effective and quality supervision of teachers has been an ongoing challenge for the Ministry of Education and one identified as crucial to the success of education in the country, and to the improvement of quality teaching and learning. The issue of supervision, its purpose, and relevance is a difficult and complex issue within the UAE, for while supervisors are instructional leaders responsible for both teachers and curriculum, they have no formal influence on classroom practices or curriculum quality.

Firstly, supervisors are primarily expatriates and are perceived by Emirati teachers and school leaders to be ineffectual in their role. As instructional leaders they are considered to be traditional in teaching approaches and of the 'old school'. This emphasis on traditional teaching approaches sometimes creates conflict between new Emirati graduates with more modern teaching approaches. Secondly, as a countervailing factor to implementing change in this regard supervisor positions are highly valued by the teaching workforce as they are seen as experts in their subjects and advisers to both school leaders and the MoE. Thirdly, the creation of a (multi-level) supervisory function within the system has diffused the responsibility of school leaders, creating a structure that is confusing and ineffectual for coordinating both the management and administration of teaching and the learning responsibilities in the schools.

In an attempt to stabilize and support the system, and ensure accountability, several additional layers were introduced such as administrative supervisors, and supervisors of supervisors, and filled according to the new Emiratization policy. Fourthly, the structure allowed for very little quality supervision pertaining to teaching practices since most subject content and knowledge, and consequently teaching methods, are derived directly from the related textbooks. While supervisors are seen by the MOE as the primary providers of professional development to teachers, the focus of development tended to relate to minor adjustment to curriculum content and around testing, and not on pedagogical aspects. Supervisors tended not to view their role as developmental or as mentors (Zayed, 2008; ADEC 2009), but as subject experts and therefore were there to ensure delivery of the subject content, albeit as outlined in the textbooks. As expatriates, their professional development role became more difficult with the advent of the Emiratization policy.

Thus, within the system the supervisory position exists and functions in a contentious environment. It is perceived as ineffective and often seen as misusing its authority to dominate and control teachers and school leaders (Gaad, Arif, & Scott, 2006; ADEC, 2009; Chapman & Miric, 2009). Research has pointed to a lack of cohesion among the different elements within the UAE education system that is impacting its effectiveness (Gaad, Arif, & Scott, 2006; Hokal & Shaw, 1999). Shaw et al. contends that "a central problem for Gulf States' school systems is that while they are administered and relatively closely supervised by the local ministries of education, their activities do not take place within a coherent and explicit tradition of public policy" (Shaw et al., 1995, p. 296). It is this incoherency that has supported a structure and its activities without any clear focus or purpose related to the improvement of quality education.

The primary role of the subject supervisors they concluded is to conduct teachers' performance appraisals based on MoE procedures, which are conducted once a year. This process it could be surmised has very little to do with the improvement of student achievement or teachers' teaching practices, and contributes little if any to the quality of teaching and learning and the overall advancement of the education system.

3.5.5   School leaders

One of the largest challenges in the system was found to be school leadership (ADEC, 2009; New South Wales Department of Education and Training, 2009). The reports found that school leaders (principals and vice-principals) were unable to deal with the challenges relating to teachers, students performance and over-all school improvement. This they determined was due primarily to a lack of supporting structure or processes for selecting and appointing school leaders, and lack of adequate preparation and professional development programs to support them in their roles. Similar to supervisors, there were no apparent mechanisms, policies or procedures for the hiring, placement, evaluation, and training of school leaders, whether they are Emiratis or expatriates. In addition, the MoE had no established criteria or requirements for the position such as qualification, education, training or experience (MOE, 2009).

The reports further determined that school leaders were also affected by things beyond the boundaries of the schools and the Ministry of Education, such as the government's implementation of the Emiratization Policy. The Emiratization policy is an 'affirmative action' policy that was aimed at increasing the participation of native workers in the UAE private sector by means of a government mandate (Toledo, 2013; Chartouni, 2011). This initiative was further rolled out into the public sector including the school system, primarily for school leaders and those working at the Ministry of Education and ADEC (ADEC, 2009). According to ADEC Emiratization Strategy,

> "As an organization committed to helping advance the economic and industrial growth of the UAE, we support the Abu Dhabi Government by developing the Emirate's Human Capital to be competent and professional to enable them to positively contribute towards the desired growth and prosperity of the Emirate. We have therefore adopted a robust and multi-disciplined Emiratization strategy based on our long-term plans to recruit, train, develop and retain UAE nationals at all levels in our business and to help Emiratis become leading professionals in the Education sector, hence contributing

positively   to   the   welfare   and   development   of   the   UAE"
(http://www.adec.ac.ae/en/Education/KeyInitiatives/Pages/Emiratization).

The implementation of the Emiratization policy and subsequent strategy had a tremendous impact not only on the governance and management of the school system but on the schools effectiveness and the performance of the students (ECCSR, 2008). The resultant impact was that the majority of the school leaders were appointed to the role of school leaders (principals and vice-principals) based solely on meeting the Emiratization criteria.

The New South Wales Department of Education and Training (2009), research on School Leaders found that very few school leaders met the required qualification and very few had access to professional development training. It was further found that in the case of male school leaders they were often appointed through a process called 'wasta', loosely translated as 'nepotism' or 'who you know', rather than through a recruitment and hiring process (ECCSR, 2008). It is the author's professional experience and anecdotal analysis (based on information obtained as part of the NSW review of the school leaders competencies) that the use of informal processes and the practice of appointing friends or family members has affected the system and placed limitations on the number and quality of candidates appointed to the position, resulting in unqualified school leaders in the schools. These limitations have severely affected the rate of school improvements and the advancement of students' achievements as most school leaders are without the qualifications, degrees, teaching background, or the management and leadership skills needed to effectively manage their school environments (NSW, 2009).

Research evidence shows that educational institutional reforms to successfully transform the system, improve the quality of education, ensure the delivery of high academic standards and improve teaching and learning as well as dealing with the challenges of education in the 21st century, will need to recruit and develop highly trained leaders "with the knowledge, skills and dispositions best suited to meet the current and future needs of education systems" (Pashiardis, & Brauckmann, 2010; Marzana, Waters, & McNulty, 2005; Crow, Lumby, & Pashiardis, 2008).

3.5.6 Curriculum

With the expansion of the education system and the increase in both private and public schools, the provision of a standardized national curriculum became a necessity. While the government controls and manages the national curricula offered in mainstream public and private schools, there are many curricula that are used in the various emirates in different types of school such as the *Model* and *Al Ghad* schools, and private *Villa* schools. The government (national) curriculum policy ensures and set guidelines for mandatory subjects in the primary curricula such as Arabic and Islamic and cultural studies. Due to decentralization and flexibility given to the emirates they can offer a range of different curricula according to the different types of schools being operated as long as the mandatory subjects are included. In Abu Dhabi, for example, there were at least 16 different curricula being used in government public schools, while providers of the PPP schools provided their own curriculum, Model and Al Ghad schools also had different curriculum, and the regular public schools without private providers had their own (ADEC, 2010).

A 2000 report released by the MoE found that most of the government public schools' curricula were irrelevant, outdated, or of low quality and were considered below international standards (Ministry of Education, 2000). It was this report that provided the impetus for many of the emirates to embark on aggressive curricular reforms and the strategy to set up innovative *demonstration* schools, such as the Al Ghad model. The study also found that there was poor alignment between the curriculum being delivered in the schools and the government's standards. In addition, the report points to a lack of consistency in curriculum across the different types of schools, and lack of alignment to the national curriculum standards and the established framework of the ministry, both within the country and in the various emirates.

In a 2006 review of the UAE education system and in particular the development, delivery and evaluation of the curricula it was found that there was no integration of the process. Each part of the process took place independent of others, and the emphasis appears to be on the textbook rather than on teaching, relevance or context of the curriculum (Gaad, Arif & Scott, 2006, p.298). The main assessment instrument used to determine standardization and measuring achievement is the Common Educational Proficiency Assessment (CEPA), which is an English requirement for graduation and is used for entry into higher education institutions (Ministry of Higher Education and Scientific Research, 2010). However, outside of the testing of language proficiency, the CEPA has no relevance or relationship to other curricula or the student's

graduation level. The challenge is that the CEPA currently lacks the robustness of an adequate assessment instrument. The data indicate that students tend not to have achieved the required level of English to enter a degree program without remedial or foundation language skills (ADEC, 2010).

Recent reports on teacher motivation and attitudes to the job found that for the most part, a significant number of teachers do not see the need to plan or develop lessons (ADEC, 2009; Zayed University, 2007, 2008). The Zayed University observation of teachers found that the majority of the teachers view the textbook as the curriculum, and teach based on the content of the textbook and to the tests (Zayed University, 2008). In a survey conducted by Gaad, Arif and Scott (2006), responses from three significant groups of people engaged in the curriculum process were analyzed: teachers involved in delivering the curriculum; supervisors involved with evaluating the curriculum delivery and providing input into future curriculum development; and the undersecretary of curriculum who oversaw the development of textbooks and teachers' guides. They found that most of the teachers responsible for the delivery of the curriculum were not aware of the context of the subject content they were required to deliver. "Of the 27 subjects, no one was aware of the national goals, and only two of the 27 teachers were aware of the subject goals" (Gaad, Arif & Scott, 2006, p. 298).

The apparent consequence of this practice is that teachers are not being prepared beyond the information provided in the textbook; and limited inclusion of additional information or resources to support lessons. Similarly, the designs and structures of classrooms are not conducive to quality instruction and enriched teaching and learning. The orientation of the classroom environments is on textbooks rather than on goals, outcomes and students' achievement; and teachers appear to have no strategy or responsibility for their students' progress or learning.

3.5.7   Students' under-achievement

The consequence of these challenges within the system is the impact that they have had on the conditions, achievement and performance of the students. Research has shown, that while the system has made great gains in the enrollment of students, increased access of females, and improved facilities the delivery of quality education and improvement of students have not kept pace (World Bank, 1999; Chapman, & Miric, 2009; Wiseman & Al-Bakr, 2013; Maroun & Samman, 2008; Barber, Mourshed & Whelan, 2007; Ridge, 2009). "There has been progress

in enrolment ratios for girls so that the enrolment gender gap has largely disappeared for primary education" (World Bank, 2010).

The studies (Badr et al., 2012; World Bank, 2010; OECD, 2011) further revealed that students test score performance in MENA countries is low by international, and even developing country (given incomes) standards. Although the low levels of performance apply to boys and girls, the differences vary across the MENA countries. Badr et al., (2012, p.1) findings show the mean scores and percentage of boys and girls with test scores at or below various TIMSS international benchmarks for the MENA countries. The research found "About half or more of students fall below the lowest benchmark (400 represents basic knowledge) in all countries, and for the most part girls outperform boys".

This trend is evident in the UAE and is reflected in the high dropout rates, especially amongst males, increased repetition rates, automatic advancement of students through the grades without the appropriate acquisition of knowledge and the need for remedial courses on entry to higher education institutions.   In its yearly review of the school year and the performance of students, the MoE and the education zones reported that evidence indicates a direct correlation between outdated teaching methods and irrelevant curricula and high dropout rates, especially amongst boys. The ministry estimated that 10-15 percent of nationals, mostly males, dropout of school prior to completing grade 12, while about 10 percent of students repeat grades (Ministry of Education, 2003).

Ridge's (2009) findings support those of the MoE and reveal that overall males are performing markedly lower than females in key subjects. Ridge contends that while the World Economic Forum (WEF) *Global Gender Gap Report* highlights the "large gains in educational attainment" made by the UAE, it fails to note that men have not been making the same gains as women and in some cases are being left behind. Gross enrollment figures for the UAE reveal that while there has been an unprecedented increase in overall enrollment for both boys and girls in the last 30 years, there are growing inequalities; such as at the preparatory and secondary education levels, where enrollment rates are notably higher for girls than boys. At the tertiary level, only 12 percent of males attend school compared with nearly 40 percent of females (Ridge, 2008). The gap between boys and girls is even more pronounced in data that includes only Emirati boys and girls. The National Admissions and Placements Office

(NAPO) of the Ministry of Higher Education states that only 27 percent of Emirati males are attending higher education, compared with over 70 percent of Emirati females (Ridge, 2009).

Summary

It is the author's interpretation and analysis that although the UAE has achieved much in the advancement of its educational strategies, there has been a real awareness that overall modernization of policies is required if the country is to ensure adequate levels of educational development and achievement (ADEC, 2009). Despite ample evidence that teachers matter to the educational excellence of a country and its student community (Davies, 1999; OECD, 2011; Wiseman & Al-Bakr, 2013), other, also ample, evidence suggests that teacher quality is not necessarily tied to teacher certification (Buddin & Zamarro, 2008 cited in Wiseman & Al-Bakr, 2013). This is a relatively new focus for the country in terms of educational reforms and as stated by Wiseman & Al-Bakr, (2013:3) "teacher quality is a difficult construct to measure adequately and consistently, in the Gulf or elsewhere"; the policies and practices will have to reflect the situational context of the UAE and Abu Dhabi specifically.

There is also acknowledgement by education system officials and policymakers (ADEC 2009) that this type of re-structuring of the education system which focuses on improving quality also requires a paradigm shift in thinking, and a fundamental change in approach, This shift would move the Emirate from what has been traditionally acceptable both in the quality of the teaching work force and the relationship between the quality of the teaching work force and students achievement to transformative process. This new process recognizes that many characteristics play vital roles in students achievement at the classroom level and all should be addressed to ensure lasting improvements. For all the value and potential benefit to the society of this developmental strategy, nevertheless it is an agenda and directive that challenges the population's views of wealth and lifestyles. By focusing on education as a means to the future success of the country and the demands of the market economy, the reform agenda focuses attention on the nation's weaknesses: the factors that are affecting the productivity and diversification of the economy beyond the 'easy' wealth provided by oil (ADEC, 2009).

The concept of improving education for the continued development of economic and social status of the country as outlined in Vision 2020 was a goal that far exceeded the country's capabilities in terms of commitment, resources, and fundamental knowledge of the key priority issues. The achievement of success in the last instance is reliant on the definition of the role of

schooling in the acquisition of knowledge and competencies on the one hand, and methods of evaluating measurable outcomes on the other. The country's leadership was again required to revisit the issues of education reforms such as the quality of school leaders and their role within the schools, the quality of the teaching workforce, and the lack of achievement of students, especially boys. To deal with the issues of school leadership, learning, and quality of teaching, the leadership and the MoE decided that a new approach was warranted with the focus, of first understanding the social and political dynamics and dilemmas that were affecting the country's education system. To advance the new reform agenda aggressively, the Abu Dhabi Emirate decided to take control of its education sector from the federal Ministry of Education and establish the Abu Dhabi Education Council (ADEC), an entity that would be responsible for the educational development of the Emirate.

3.6   Current educational reforms and frameworks

The challenges that exist in the UAE education system needed to be addressed through a systematic and strategic approach if the country was to create profound change in its educational policy to ensure quality delivery of programs. It was the view of the country's leadership that the goals of improving the quality of education, teaching and learning, and creating a world class education system were achievable and sustainable, but only if implemented through a national strategy (Abu Dhabi, 2009; ADEC, 2009). This view, however, was not supported by the Abu Dhabi Emirate's ruling family and so the Crown Prince separated the education mandate from the MoE and established a council to take responsibility for the Emirate's education system. Despite some significant developments and more defined plans for reforms, the UAE's education system has not proven capable of responding effectively to the needs of either individual Emirates or national development (Welch & Mawgood, 2000, p.13). The expectation was that with recent changes in the federal government, the appointment of a new minister, and the decentralization of authority to Educational Councils in Abu Dhabi and Dubai, there would be renewed momentum for systemic and sustainable educational reforms throughout the country.

In 2005, the government of the Emirate of Abu Dhabi established the Abu Dhabi Education Council (ADEC) and gave it responsibility for the education sector (P-12 and Higher Education and Vocational Education). Pre-primary to Secondary (P-12) refers to the sum of pre-primary years, which typically includes 2 years of pre-primary and 12 years of primary and secondary education (Abu Dhabi Education Policy Agenda, 2008). In Abu Dhabi this is stated as

Kindergarten (1&2), Cycle 1 (grades 1-5), Cycle 2 (grades 5-9) and Cycle 3 (grades 10-12). In 2007 ADEC was granted full authority for education in Abu Dhabi Emirate. Along with this new authority, ADEC was given responsibility for improving the education sector's capability and the quality of human capital (ADEC 2008, 2009). This meant that areas such as quality education, quality instruction, and quality teaching became the responsibility of the Emirate and an integral part of its policy agenda. Prior to this, the responsibility and provision of education was a federal responsibility conducted by the United Arab Emirates, Ministry of Education (ADEC, 2008).

The Abu Dhabi Education Council (ADEC), having taken responsibility for the teaching workforce in Abu Dhabi Emirate and as part of its strategic plan, established new criteria and requirements to ensure that only highly qualified teachers are in classrooms, and only excellent and highly qualified school leaders are leading and managing schools. The leadership of Abu Dhabi tasked ADEC with the responsibility and authority to drive educational reforms and implement strategies to support, develop and implement a framework that promotes professional standards and provides a framework for accreditation and a continuum of learning. Prior to 2007, the MoE was responsible for, and set the requirements for teacher qualifications, and the recruitment, hiring and deployment of the teaching workforce and school leaders. The requirement was for an individual to have a diploma or degree and two years experience. There were no requirements for teacher qualifications or language skills and no induction program for either new graduates or foreign trained teachers.

3.6.1 Abu Dhabi's mandate for educational reform

ADEC's mandate is to achieve high quality education through improving the quality of graduates and overhauling the Abu Dhabi education system. Some of the more recent reforms implemented by ADEC are intended to improve the system in general by enhancing coordination and coherency, improvement of governance and school leadership, alignment of the different systems under one model of delivery, and adoption of a structural framework for continued advancement of education in the emirate. Some of the planned reform initiatives included in the current strategic plan are intended to address elements such as:

- Provide a new model of school operation
- Enhance bilingual education (i.e. increase English language in schools)
- Improve the quality and number of qualified teachers
- Improve the quality and number of qualified school leaders
- Improve and enhance the curriculum and standardize the curriculum across all sectors

- Increase yearly instructional hours to meet international standards
- Improve students' attendance rates and decrease repetition rates
- Improve infrastructure and facilities (Abu Dhabi Education Council, 2009).

3.6.1.1   New school model

Under the old structure of the MoE, Abu Dhabi accommodated and managed four different models of school systems: private, government public schools, government model schools, and Public Private Partnership schools (PPP) not including the private schools. All of these models used different curricula, textbooks, hiring procedures and student assessment strategies.   For example, in 2006 the leadership implemented and launched the PPP project, which engaged six private providers to take over management of some of the government primary schools in two regions of the emirate.

The providers were given the finances and schools to operate based on their respective educational programs, which meant they could use their own methods of instruction, teachers, teaching resources and curriculum. In this instance, the curricula reflected the countries from which the providers came, such as the UK, New Zealand, USA, Canada and Australia. In addition parents could still choose from the wholly private or public system. While the providers were responsible for the delivery of the curriculum and teaching and learning aspects within the schools, they had no responsibility over the hiring or dismissal of teachers or school leaders, especially Emiratis. The reform agenda included the desire for a new model of operation and the expansion of the PPP model with increased management responsibility. Under this structure, providers would be assessed based on the performance of their students on standardized tests, the quality of their graduates by their ability to enter higher education, and the providers' ability overall to deliver successfully a bilingual (Arabic and English) curriculum.

The plan includes strategies to increase the yearly instructional days and increase teacher contact hours, to be in line with OECD countries. It also identified a series of initiatives and activities to ensure students have access to modern innovative standardized curricula, new and improved approaches to and methodologies for teaching and learning, and increasing the number of better qualified teachers and school leaders.

3.6.1.2   Bilingual education

ADEC has embarked on what is perceived to be a controversial approach to bilingual education in the primary grades where the language of instruction is both English and Arabic. The plan is to have English used to a greater extent as the medium of instruction starting at KG and cycle 1 (grades 1 & 4) and to be rolled out to other grades in subsequent years. Bilingual education in this context refers to "an educational program in which both a native language and a second language are taught as subject matter and used as medium of instruction for academic subjects" (Brisk, 2001, p.4). The objective of the Abu Dhabi Model is to teach subjects such as maths, science, English, IT and health and physical education in English, while retaining the medium of Arabic language for social studies, Arabic, Islamic studies and cultural and humanities subjects. The expected outcome is an improvement in English proficiency with a direct impact on students' performance in maths and science. There are many concerns about the implications for students who are required to learn in a language that is not their mother tongue. "Many of the students attend courses taught in a language other than their mother tongue (most schools now operate exclusively in English)" (Bindon, & Lane, 2011, p. 1).

It is expected that with the successful implementation of an English and Arabic medium of instruction, the system will enhance the quality of language proficiency of high school graduates, ensuring that they excel in both languages, including a high enough English language level to decrease or eliminate their need for English foundation courses in higher educational institutions. The current system experiences poor English language instruction resulting in poor performance especially for males on the CEPA test, where males have been known to have a negative distribution. This is of particular concern as students in higher education are instructed in English, a subject in which boys perform the worst; and which reduces the chances that males will enroll or complete higher education (Abdulla & Ridge, 2011).

In order to achieve successfully the planned outcomes and align this new approach with the new model and prior to teachers being assigned to teach in that specific language, English and/or Arabic significant efforts are needed to ensure that adequate documentation is obtained in terms of evidence of language proficiency in both English and Arabic.

3.6.1.3   Curriculum

Curriculum reform and the development of new curricular standards and benchmarks for student achievements are pivotal to education reforms in the emirate. In 2006 Abu Dhabi introduced new curriculum standards in English, maths, science, IT and HPE to be delivered in English. The curricula were designed and developed based on the New South Wales (NSW) curriculum standards model. The focus is on improving the core subjects, developing and expanding curriculum-learning outcomes, and developing benchmarks and standards that are on par with international standards. It is intended that the changes not only address the deficiencies in the standard of student achievement, but also provide enriched subject content.

This type of reform, while significant in importance, is limited if the capacity and quality of teachers is not addressed alongside curriculum reform, as teachers themselves need to comprehend and feel adequately prepared to deliver the new curriculum standards. To strengthen the new model and curriculum standards and establish goals, the reform needs to be harmonized with the capacity of the teachers and their professional development needs. This would also require alignment with teacher education programs and their ability to deliver enhanced courses in teaching methodologies and pedagogy, since the current teaching workforce is considered un-qualified or under-qualified and therefore would not have the required knowledge, skills or competencies to apply to the new and more sophisticated curriculum standards. Teaching practices and the learning environment also have to undergo a process of transformation and change from a teacher-centred to a student-centred learning process. Successful implementation of a new curriculum depends on the teachers' capability, and without extensive professional development and training, the plan for a world-class education system might be compromised.

In order to address effectively the issues of curriculum and promote improvement, the system has to ensure coordination and consistency in the areas of teacher-student ratios, contact hours, textbooks, numbers of periods allocated per subject, the number of periods taught per week, and teachers' ability to teach in a second language. The challenge for the system is the level and extent of the reforms required to improve teaching methodologies and approaches since the current teaching workforce might not have the knowledge, skills or competencies to apply the new curriculum standards. The format and structure of curriculum delivery requires a shift from teacher-centred to student-centred learning, which continues to be a challenge for teacher preparation programs in the region.

Finally, to adequately address the quality and language proficiency of school teachers, ADEC has in the immediate term recruited fully qualified native English language teachers from predominantly western countries such as the USA, Canada, Australia, the UK and New Zealand.

3.6.1.4   Quality teachers

To achieve the desired outcome of increasing student performance, Abu Dhabi has made one of its priorities improving the quality of teachers. The issue of teacher quality, level of preparedness, and validity of educational scholarship has created many challenges for the system as most of the teaching workforce consists of expatriate teachers, especially males at the higher grades. It estimated that the ratio of expatriate and national teachers are 40 percent expatriates to 60 percent UAE nationals in the girls' schools, and 60 percent expatriates to 40 percent UAE nationals in the boys' schools. In senior boys' schools the ratio of foreign trained teachers to Emirati teachers is estimated at 80 - 90 percent in favour of being expatriate teachers (Ministry of Education, 2010). Overall the estimate across the system is 60 percent foreign trained and 40 percent nationals. This percentage is expected to increase as the Emirate continues to recruit western trained English language teachers.

With such an extensive number of foreign trained teachers, the lack of a mechanism to verify the relevant data and major variations in the quality of the current preparation programs, means that even those teachers with degrees may be teaching below acceptable standards. Some of the existing challenges are: lack of information on the quality of teacher preparation programs in the teachers' countries of origin; lack of mechanisms to verify degrees and their scholastic foundation; and a lack of teacher certification process in these countries.   According to two MOEY studies, "Only 44 percent of teachers in the UAE were certified with a university degree. This compared unfavourably to 80 percent of teachers in Singapore and 97 percent in Japan" (Ministry of Education and Youth, 2005, p. 10; Ministry of Education, 2009). The studies further found that new teachers in the UAE received training for an average of only two weeks before being placed in the classroom. This compared with an average of one to two years training in OECD benchmarked countries (Abu Dhabi Executive Council, 2008, p.30).

As professional development is an on-going issue for expatriate teachers and a challenge for the government due to the Emiratization policy (Toledo, 2013; Chartouni, 2011), this will require significant effort to ensure its inclusion in the teacher quality reform initiatives. Some of the

regions, due to their isolation and rural location, experience difficulties in accessing professional development courses or training even for those who meet the eligibility criteria. For these teachers there are severe issues relating to access, equality and quality. In these locations, professional development activities are difficult to access and those available are often of poor quality. As a result, students in rural areas are at a disadvantage as they are continually exposed to outdated information, subject content and teaching methodologies. Furthermore, teacher quality is also affected by the lack of training in special pedagogical areas, such as early childhood education, literacy and numeracy development, and special needs. To meet fully the planned outcomes, the ADEC needs to ensure alignment of these initiatives with a more system wide approach, inclusion of policies and procedures to promote and support individuals' skills development, and the provision of pedagogical skills and competencies to meet the needs of the student population.

The current system has no delineated policies or procedures dealing with teachers leaving and returning to the system, such as refresher courses for those who have been out of the classroom for a period of time before re-assignment. There is no induction program for beginning teachers (graduates) or newly appointed foreign trained teachers, or mentoring programs to develop and support teachers in general or Emiratis. As supervisors are considered to be part of the leadership team in their role as instructional and curricular leaders assisting with the development and enhancement of teachers in classrooms, they also need to be part of any discussion on quality teaching. They are clearly an essential part of the school leadership team and any restructuring or reform of schools needs to engage them in the process. To achieve quality education and teaching excellence it is necessary for supervisors themselves to have a strong foundation in pedagogy, teaching methodology, and supervisory skills. Supervisors are key participants in the support and mentoring of teachers to deliver the curriculum and in enhancing teachers' professional skills in teaching and learning. Therefore they are essential to strategies that seek to enhance teaching practices and improve students' performance.

Due to the emirate's heavy reliance on foreign trained (expatriate) teachers to advance the planned reform initiatives, and its inability to recruit more Emiratis into the profession in spite of the Emiratization policy, it is evident that teacher quality could continue to be a challenge for the emirate unless a systematic policy and framework for professional development is instituted in conjunction with the reform strategies.

3.6.1.5   Quality school leaders

To implement reforms to achieve improvement of schools and enhance student achievement requires leadership and management by quality school leaders. According to Pashiardis & Brauckmann (2010), "school leadership has been identified by a number of researchers as a key element in the effectiveness of school organizations" (p. 11). The quality of leadership in the schools is determined to be one of the single most important factors in the sustainability of educational reform in UAE schools (ADEC, 2009). The research evidence indicates that high quality school leaders were lacking in the current system, and the majority are unqualified for the responsibility of managing and leading schools (ADEC, 2008, 2009; NSW Department of Education and Training, 2009). The findings of the New South Wales study found that while there were examples of outstanding leadership in schools, there is significant room for improvement in the leadership capabilities of the majority of school leaders (NSW, 2009, p.10).

The provision of new curricula, improvement of textbooks, improvement in quality teaching practices, and changes to methods of instruction can only be effective and successful if the training and development of school leaders are considered as integral part of the strategy. Due to a lack of readily available and approved professional development programs in the region and the UAE, a plan was developed to send principals outside the UAE for training. This resulted in approximately 15 principals being sent to institutions such as the National Institute of Education (NIE) in Singapore for a one-month leadership course over several successive years (NIE, 2008). However, the system was unable to sustain the activity due to high cost (approximately 455,000USD per year), low number of participants and minimum returns on investment (based on feedback from the school leaders who participated, the majority found that they could not implement many of the knowledge gained from the course (ADEC, 2007, 2008), the initiative was subsequently terminated.

The Abu Dhabi Education Zone (ADEZ) in its Annual Report (2004), further reported that there were three primary issues with the program: lack of effective knowledge transfer (only 15 participants could be accommodated in the program per year); irrelevant course content (as reported by the school leaders); language of instruction (the course was conducted in English with a majority of the participants thereby gaining limited content knowledge) (Abu Dhabi Education Zone, 2004). The challenge is that while policy makers were working to address the ratio of nationals versus expatriates in school management positions, they were also having to reconcile the lack of available school leaders' with the relevant skills, competencies,

educational knowledge, and leadership skills to effectively improve the quality of teaching and learning in the schools (ADEC, 2009; NSW, 2009).

3.7   Summary

The United Arab Emirates is at a moment of important change (Office of Education Support, 2005). The country as a Federation is relatively new and has had to develop its systems rapidly. The education system is at a crossroad of implementing educational reforms that either will meet the needs of the country and specifically the mandate of the government of Abu Dhabi to increase the level of student achievements in line with international standards, or will once more become bogged down in inertia and a disoriented education system full of problems.

Since its inception the country has had to rely heavily on educational expertise from other Gulf Cooperative Council (GCC) and Middle East countries and has for the most part modeled its system on selected parts of those systems. Coupled with this level of educational transfer from the region, the country's educational policies and practices have historically been influences by western foreign transfers (Ibrahim, 2010; Chapman & Miric, 2009).   The current UAE education is a product of inappropriate adapted foreign transfer combined with ad hoc implementation and approaches, there is evidence of inconsistency and lack of coherencies that have impeded the country's achievement of quality education (MOE, 2008; ADEC 2008).

The leadership of the Abu Dhabi Emirate has determinedly embraced a new innovative framework to revamp the education system of the emirate. Fundamentally, this involves four key factors: specification of educational standards which deal with the national curriculum, benchmarking standards and achievement targets against other countries, such as the OECD's top five countries, rather than the historical comparison with the GCC and other Middle Eastern and North African (MENA) countries, expansion of a differentiated system of educational provision, and the establishment of mechanisms for evaluating professional standards (ADEC, 2008; 2009).

The Emirate's leadership has decided to look to other countries and review their approaches for dealing with similar challenges. Many western countries have engaged in systemic educational reforms and have achieved tremendous successes, and so Abu Dhabi seeks to progress in the same manner. This by no means implies that Abu Dhabi wants to or should adopt the same systems that exist in western countries.   What it seeks is a model or strategies that will

effectively address the challenges it is experiencing in the emirate, such as high student drop-out rates, lack of innovation in the curriculum, poor teacher quality and standards, and poor school leadership, which have been dealt with successfully in other countries, yet in line with the social and political context of the emirate's environment.

The UAE and specifically Abu Dhabi Emirate is experiencing a challenge that is unique to its environment. No other country has experienced this level and extent of an unqualified teaching workforce that is transient and with no ongoing commitment to the country or the development of the education system (ADEC 2009). Given this uniqueness and its extent and ingrained effects, it needs to be cautious in its transfer of foreign educational models and systems as context could affect relevancy and applicability. The borrowing of foreign models might not be appropriate for its context and unique environment, even if grounded in a systematic and tested framework.

Chapter 4: LITERATURE REVIEW

4.   Introduction

This chapter will explore the challenges of 21st century teaching and specifically the purpose of education. It further explores and analyzes themes in the problems of educational reforms, teachers and school leaders' competencies and qualities, and their affect on school improvements and student achievements. The chapter will also review the related and relevant literature as it relates to the constructivist theory of pedagogy, and relevance today on the expectation of education and the improvements on teaching and learning. Finally, the issue of education quality and its relationship to student achievement will be reviewed and analyzed with specific reference to the Middle East and North Africa region (MENA).

4.1   Theoretical Perspectives

Prior to the ninetieth century education for the most part was viewed as a privilege, an elitist practice: "Until the nineteenth century schools were the preserve of the social and economic elite" (West-Burnham, 2001, p.2). Its structure and concepts were designed for and preserved for the social elite of society. Its roots were grounded in European society which was focused on all things classical, and based on discipline. The advent of the industrialized age saw a shift not only in the perception, but also the nature and purpose of education. This change came about as society experienced incredible advances in economic growth and demographic shifts. With the onset of the industrial age arose a need for skilled workers. To meet these increased demands it needed not only an educated population but a *trained* labour force.   West-Burnham emphasizes that the "introduction of mass-education was in response to economical rather than political, cultural or moral imperatives" (West-Burnham, 2001, p.2). Consequently, the system needed to be rethought, remoulded and redesigned to meet the new needs being experienced by society. The framework for education during the industrial age shifted from classical social positioning to one focused on broad knowledge, as well as practical and skill-based training.

This redesigning and remoulding resulted in a shift in conceptualization of the role of education and a move away from the classical conception of education. That is, it shifted from the enlightenment of some human beings to an education more focused on training of the masses to meet the immediate needs of the society. Arguably it could be said that it was during this era that education became directly linked to the economic shifts being experienced by society.

In something of a reaction against this trend, educational theorists such a John Dewey, saw education as more of a broadly pragmatic process in which people, instead of being moulded by the teacher in his/her own image, would learn by doing. Dewey saw education as a practical process that would contribute to the improvement of everyday life and society as a whole (Dewey, 1916). Dewey's vision of education was more socially functional: he saw education as "preparing students for the demands and occupations of everyday life" (Elkind, 2004, p.310). He believed that through trial and error the individual could acquire important life skills. This approach would also foster and promote democracy, improve society and, dialectically, improve the educational system itself (Dewey cited in Kellner, 2000, p.56).

While Dewey's philosophy remains, in theory, the foundation of contemporary westernized education it is by no means the prevailing view of the purpose of education in the 21st century. Dewey's conceptualization is the ideal achievement of education. However, rapid changes in society such as the advent of extraordinarily complex technology have pushed the limits of such principles, thus creating incredible challenges for societies and education systems (Spring, 1999). Similar to the industrial era, new technological innovations have impacted all aspects of society and have transformed daily lives, resulting in immense challenges for education systems. Consequently, educators are being demanded to rethink the purpose of education and restructure "education to respond constructively and progressively to the technological and social changes now encompassing the globe" (Kellner, 2000, p.49).

The resulting analysis of the literature reveals that the changes that were experienced in the industrial era, and are being experienced currently in the information era, are all relative as massive societal change is cyclical in nature. In every era there have been massive changes that have pushed the education system to make adjustments. To critique and transform education and redesign its foundation to reflect 21st century realities requires first an understanding and clear articulation of the current philosophy, goals and intent. Only then can educational reform effectively impact the restructuring and rethinking of education relevant to today's contemporary situation. To reconstruct today's education system implies the deconstruction of the past and the relevancy of the philosophy of education.

4.2   Purpose of education & quality education

Most of the discussion and research analysis focuses on the age-old question: what is the goal and purpose of education and what is quality education? Researchers argue that without a

common understanding of the purpose, it is difficult to make systemic change. It is only with such an understanding that we can unequivocally ensure that we know which variables or factors contribute to quality education and which ones to change.

Philosophically, the purpose and goal of public education lives within a dichotomy. On one hand schools are characterized as the transmitter of knowledge, the molder of minds, and the guardian of privilege and culture, and on the other hand they are seen as a vehicle to reproduce 'human capital' needed by the society: to "select and certify a work force" (Apple, 1982, p.41 cited in West-Burnham, 2001). According to Apple, one of the key purposes of schools is to "help maintain privilege in cultural ways by taking the form and content of the culture and knowledge of powerful groups and defining it as legitimate knowledge to be preserved and passed on….schools, hence, are also agents in the creation and recreation of an effective dominant culture. They teach…norms, values, dispositions, and culture that contribute to the ideological hegemony of dominant groups" (Apple, 1982, p.41 cited in West-Burnham, 2001). However, there are some contrasting views to perspectives such as those just canvassed that see school education having been captured by 'elites' and frozen in time. Others, such as Skilbeck and Connell (2004), understand that whether under the control of elites or not the role of education has often changed as the nature of society has changed and evolved. As society advanced from an industrial base into a knowledge and information based economy so too have schools (Spring, 1999). This change continues today and is having a profound impact on all aspects of life, and therefore on schooling.

> *Schools are being caught up in profound social and cultural changes, which are technical, scientific and commercial, but also evident in population mixes, family patterns, uses of leisure and access by students and teachers alike to experience on a global scale. Not least of these changes are affirmations of the rights of citizens and challenges to the authority of established figures and institutions-not least teachers and schools* (Skilbeck & Connell, 2004, p.16-17).

Their perspective is further supported by researchers such as Linda Darling-Hammond (2012, p.3) whose view is that the goal of education today is to create "motivated and self-reliant citizens who can use knowledge and technologies to design tools and solve problems, acquire new skills, and collaborate in fast-changing globalized contexts". While there is an array of research looking at factors and variables that affect student performance, the literature does conclude that we should not lose sight of what the real issue is: and that is "*learning*". It is

suggested that when we find the answer to what is education for, or, education for what, only then can we effectively determine the criteria of quality teaching and learning. It has been argued that if we focus on what it means to be educated in the 21st century then we will know where the emphasis should be and what characteristics quality teachers need to have for success.

Educationalists such as Darling-Hammond (2012) contend that society is in need of a paradigm shift in education in the 21st century. The society is in greater need of higher standards of learning, schools and classroom have more diverse student population with greater educational needs, and there are greater expectations of school for ensuring success because of the nature and levels skills and competencies required. Her argument is that we have moved away from the need for low-skilled jobs to a highly knowledge and skills based workplace which has created pressure on society for more education. This new context has forced new expectations. It is interesting that when one reviews the list of expectations and recommendations found in research, it appears that the focus is not on high technical skills but what are termed "soft-skills", especially the individual's ability to adapt to new and ever changing working environments. Others of these skills are: ability to communicate; adaptability to change; ability to work in teams; preparedness to solve problems; ability to analyze and conceptualize; ability to create; innovate and criticize; ability to engage in learning new things at all times; and ability to cross specialist borders (Darling-Hammond, 2012).

The importance of this paradigm shift is its focus on sustainable development, conflict resolution, citizenship development and collaborative processes, and the ability to development new products, solutions and strategies for living and learning. These new skills have been categorized into four areas by Darling-Hammond: 1. ways of thinking; 2. tools for working; 3. ways of working; 4. ways of living in the world (Presentation on 21st Century Skills, 2012). It is argued that to achieve these new expectations society needs to focus on learning and what is required. These she lists as follows:

- An understanding of the *meaning* and *relevance* of ideas to concrete problems
- An ability to *apply* core concepts and modes of inquiry to complex real-world tasks
- A capacity to *transfer* knowledge and skills to new situations, to build on and use them
- Ability to *communicate* ideas and to *collaborate* in problem-solving
- An ongoing ability to *learn to learn.*

To create these abilities, we need to reform the education system and address areas such as standards, curriculum, and testing; teachers and teaching; accountability and improvement. It is only by addressing these challenges and putting the focus on learning and students that the system will enable students to use tools and technologies to design and solve problems. The OECD's findings support this notion and stress the importance of learning that is in line with more modern views of the purpose of education. This is because the goals of education have changed, as too have the competencies required (Spring, 1999). It states, "Quantity and quality of learning thus become central, with the accompanying concern that traditional educational approaches are insufficient" (OECD, 2010, p.13). The OECD's research on the *"Nature of Learning, Using Research to Inspire Practice"* focused on learning and emphasized the nature of learning as crucial to the dialogue on education because of the transformation that has taken place in societies and the shift in the economic markets to a knowledge base.

The research contends that the focus needs to be on learning because knowledge is central to our societies, and therefore, learning is also central. The research further asserts that because of difficulties in reforming education systems, then one needs to take a fresh look through different lenses, and one of these lenses is learning itself. It argues for movement beyond the diagnoses of achievement levels and shortcomings to having a deeper understanding of how people learn most effectively (OECD, 2010, p.13). The research findings indicate that while there is a vast amount of research, much of it is "disconnected from the realities of educational practice and policy making" (OECD, 2010, p.13). These findings and the promotion of evidence based research to inform and support educational practices are similar to the principles purported by constructivist pedagogy, which promotes the use of evidence based results to inform teaching practices.

Skilbeck and Connell (2004) in an earlier work proposed that the constant changing nature of society and the profound changes being forced onto schools requires a new type of teacher and school leader to ensure that societal change that supports technical, scientific and commercial innovations is nurtured and enhanced. They see the roles and responsibilities of teachers and schools leaders as one of helping to mediate the change. This apparent duality in roles has been the cause of many problems and challenges when reforms are attempted and assessed: it is often unclear which elements are being changed and which variables are being measured against which outcomes. This vagueness of purpose and reflection creates unforeseen problems especially when qualitative measures are applied. West-Burnham's view is that assessment of

schools should involve more than the superficial aspect of what schools do because it's "not just what schools do that is significant – it is how they are" (West-Burnham, 2001, p.2).

It is evident that much of the research on the effectiveness of education reform has been influenced by the vagueness of the definition of purposes and goals, and effective reforms have suffered as a result. This vagueness has resulted in reforms that do not clearly identify the areas to be reformed. The majority of reforms seem to focus primarily on school improvement emphasizing administrative procedures, while alleging to be targeting student achievement. Both West-Burnham (2001) and Apple's (1982) critique found that profound and fundamental change had not occurred in schools in developed countries. For the most part, they found that the primary elements and routines of schools still reflect the nature of the demands of the 1900s. Their perspective is that "the essential rhythm of the school year and day has not changed, the content of the curriculum is essentially the same, and modes of teaching remain the same, as do assessment strategies" (Apple, 1982 cited in West-Burnham, 2001, p.3). West-Burnham summarizes this by stating that "if Apple's critique is accepted then schools continue to operate as they always have because they are very good at serving the economic needs of the state and the cultural imperatives of society, not because they exist to educate" (West-Burnham, 2001, p.3). These views are also supported by the findings of Spring (1999) who concluded that mass schooling has not changed in any significant way for a hundred years. He further points out, that 'mass schooling or factory-fodder approach' was ineffective and resulted in mass under-achievement of students, and blighted economic growth of nations due to the focus of their education systems that was on *quality inputs* rather than *quality outcomes* (p.183).

According to The World Bank Report (1999a) what is needed in the MENA region is increased country-level information on education and the effects of reform. "Effective education systems produce students whose academic achievement meets clearly defined standards. Systems must thus be able to identify weaknesses which impede the ability to either define standards or enable students to meet them, so that reforms can target areas where change is needed" (p.21).   The report found that the use of broad indicator information- e.g., school enrollment data, wastage rates, numbers of graduates were sufficient to illuminate system performance and target reforms. What was needed it states was information which reveals the more "intimate processes and characteristics of schools and classrooms is crucial: how teachers and pupils use textbooks and other materials, the match between the language of instruction and the language pupils speak at home, the structures and

patterns of interaction between and among pupils and teachers, the suitability of the learning environment to learning" (p.21). In MENA, none of this is examined routinely or systematically. The report goes on to say that without the examination and analysis of the processes that specifically affect teaching and learning it is difficult for policymakers to ensure that their reform policies are making the right impact and affecting the right changes. "Without it, the target of education policy-school and classroom practice-is portrayed by various technical and political actors in conflicting ways, each of which can imply a different policy response. Such inescapably misinformed policy responses run a high risk of being misdirected" (p.21).

The report further elaborated on three key types of information that are needed to identify problems in the education system, to design appropriate technical reforms and policy responses and to generate support for reform. The first is *Management information* on the procedures and patterns of resource allocation inputs such as textbook availability and number and type of trained teachers by school, and basic broad indicators such as repetition and teacher absenteeism. This information is considered crucial as it provides teachers, trainers, curriculum and materials producers, administrators and Ministers with the tools to successfully perform their responsibilities. This information *is needed to broadly identify desired system changes.* The Second is *Rigorous, regular assessments* of what students are learning at different levels of the system and within subject areas, compared with goals for student learning. Assessments can be carried out on many levels, and can measure cognitive achievement, values, attitudes and skills. They provide information to policy makers about the extent to which individual schools, school clusters and the entire education system impart the skills students need to meet established standards. This knowledge *enables policy makers to identify where and what about service delivery and educational processes needs to be improved.* The Third is *Process effectiveness information* can be gathered through pilots and monitoring of ongoing activities. This type of information can help gauge the appropriateness of grade level materials or specific technologies, the match between pre- and in-service teacher training activities and classroom needs, the adequacy of instructional time on task and the impact of family and community support. Policymakers, headmasters, teachers and parent committee members can use this information to *determine how best to change areas that need improvement.* It is this information which gives substance to reforms indicated by management and learning acquisition information (above) and which gives them the highest likelihood of impacting learning (World Bank Report, 1999a, p.21).

Without this type of information and mechanisms to inform policy makers and practitioners, attempts at educational reform will be futile (World Bank, 1999). "Reforms-from teacher training overhauls, to curriculum and textbook revision to decentralization of financing sources and budgeting-will be decreed, designed, adopted and discarded without anyone knowing what, how or indeed whether anything was accomplished at all. In such a context policymakers, teachers and parents would stand powerless to halt a process of learning decline and resource waste" (World Bank Report, 1999a).

Other researchers such as Elkind (2004) support the World Bank approach; he argues that the failure of educational reforms can be contributed to the lack of alignment between three fundamental factors of readiness: readiness of teachers, relevant curriculum and societal readiness. It is evident for the most part that while many groups and individuals have demanded systemic reform of education there is still not a coherent perspective concerning what is required and how to go about achieving it. For many educationalists, Dewey's version of education represents the truest form of education and is valuable and legitimate for developing individuals to participate in a democratic society. Nevertheless, and despite this, while many policy makers are in favour of changes that reform and modify the administrative procedures of schools, they are not necessarily willing to change the foundation of the nature of education. Consequently, Dewey's perspective on education remains the cornerstone of perceptions of and within westernized education, but this has resulted in the system being in conflict with itself around its intended goals and around how schools should change to respond to changes occurring in the world.

West-Burnham further elaborates the point of the stalling of reform by observing that in some schools the curriculum is constrained to meet not just 'social reproduction' needs but economic needs: "schools do not 'merely' act as mediums for the distribution of a hidden curriculum and the distribution of people to their 'proper' places outside of them. They are important elements in the mode of commodity production in a society" (West-Burnham, 2001, p.42). Yet the UAE system, including Abu Dhabi's, is expected to produce both human capital which, as seen above, has its critics, and a citizenry able to engage in the modern world, which catch-phrase is usually taken by its more liberal proponents to mean a type of citizenship education including cultural elements drawn from Enlightenment thinkers and modern democrats, such as Dewey.

This dichotomy is compounded by the particular circumstances found in Abu Dhabi. The human capital approach seems to be meeting some popular, if passive, resistance from students, especially in terms of their engagement and degree of motivation, while the latter, educating for democratic citizenship, is meeting reluctance from leaders at all levels and 'traditionalist' teachers. This dilemma is not confined to developing countries. Precisely the same dichotomous demands by Australian governments for school education confronted Ladwig, Gore and others (2003, 2005& 2007) who were tasked with providing a type of pedagogy that could bridge both these two demands. The subsequent model which acts as a foundation for the New South Wales Quality Teaching Model (2003) was to be a way of continually assessing a certain type of pedagogical practice. The elements of the New South Wales Quality Teaching Model and the model's practice were developed by Gore and others to provide training and to produce a sophisticated workforce while also educating for what may be called 'critical citizenship'. . Ladwig, Gore and others (2003) proposed that their model be a type of constructivist approach to both assessing and implementing pedagogical practice. Their resultant model, its theoretical perspective and the model itself are treated more fully in a subsequent chapter.

There are some theorists who propose a cautionary approach to the use of constructivism as a model for teaching practices as they see the model as a theory of learning and not of teaching. Still others propose that constructivism is a theory of learning and of knowing. It describes both what "knowing" is and how one "comes to know" (Fosnot, 2005). It is grounded in the fundamentals and "traditions of cognitive psychology, and especially the writings of Dewey, Vygotsky, and Piaget" (Danielson, 1996, p.23). The premise of *"modern"* or *"radical"* constructivist theorists such as Ernst von Glasersfeld is that knowledge is not passively transmitted but is actively built up, and knowledge acquisition is adaptive to the subject orientation. His basic principles are as follows:

1. Knowledge is not passively received either through the senses or by way of communication, but is actively built up by the cognizing subject.
2. The function of cognition is adaptive and serves the subject's organization of the experiential world, not the discovery of an objective ontological reality (van Glasersfeld, 1988, p. 83).

Constructivism in education can be an approach for how we understand the interrelated acts of teaching and learning in the 21st century (Fosnot, 2006). Constructivism as a learning theory is not a new theory and has been part of the discourse for decades; however constructivist

teaching as a theory of practice has only gained prominence over the last decade (Richardson, 2003; Fosnot, 2003; Elkind, 2004; Richardson, 1997; Drew, 2003; Ismat, 1998; Duffy, & Jonassen, 1992). Constructivist teaching based on a foundation of learning theory is considered to be the most relevant approach to achieving educational reform and the required expectations of education in the 21st century due to its relationship with the theory and practice of learning (Richardson, 2003).

According to constructivist theorists such as Fosnot (2006), the world of schooling has had to change due to advances in the scientific and technological fields. The changes have affected the way we describe and interpret our world. This requires a dramatic reassessment of the models used to interpret and give meaning; and in turn our understanding of the interrelatedness of teaching and learning. This is evident in the 20th century conceptualization of learning, which was viewed as "a change in behavior" (Fosnot, 2003). Under this definition "teaching was characterized as clear communication with appropriate learner practice, reinforcement, and motivation. Disciplines were broken down into skills and concepts, sequenced from what was considered simple to complex tasks, and assessments were designed to measure changes in behavior" (Fosnot, 2003, p.1).

With the advances in the scientific and technological fields and the rapid changes of information in the 21st century the former transmission mode of learning was insufficient and needed to adopt a new thinking and new approach to teaching and learning. The constructivist perspective is that "learning and teaching are far more complex and reach into domains that deal with interaction, growth, and development" (Fosnot, 2003, p. 1) and therefore require new lenses for a new instructional approach in a classroom. Van Glasersfeld's views are further supported by Kroll and LaBroskey (1996) who view knowledge as a process that is acquired through involvement with content instead of imitation or repetition. The interaction between the individuals' actions and their reflection on these actions is what is transformed into knowledge; and in this context the construction of meaning is based on the individuals' experience and social processes and interaction with others (Fosnot, 2005).

A review of the relevant literature indicates that when it comes to teachers and students or teaching and learning there are two opposing traditions each with very ingrained notions and perspectives on education, its goals and practices. Jackson (1986) characterizes these traditions as *"mimetic"* and *"transformative"*. The *mimetic* he sees as an approach in which "students

are expected to acquire facts and skills from drill and practice exercises", and the *transformative as* "a type of teaching that seeks to influence the attitudes and interests of the learners, evoking changes in perspectives" (Jackson, 1986 cited in Brooks, 1990, p. 68).   One of the major differences in the two approaches is the relationship and role of the teacher and the learner. It is the perspective of researchers such as Jackson (1986) and Brooks (1990) that neither viewpoint in the extreme is effective in a world that demands well prepared graduates with specific knowledge and skills, but also requires attitudes and interests conducive to vision and creativity (Brooks, 1990).   In Brooks' analysis the question is not one or the other but the creation of a balance by the teacher in which "the primary question for the teacher, …is how to help students build a foundation of skills and information while they simultaneously use their creative, intellectual abilities to solve real problems and incidentally develop positive dispositions towards such endeavors" (Brooks, 1990, p.68). This balance can be created through the application of a constructivist approach.

There is general agreement that constructivism is "a theory of learning or meaning making, that individuals create their own new understandings on the basis of an interaction between what they already know and believe and ideas and knowledge with which they come into contact" (Resnick, 1989 cited in Richardson, 2003, p.1623-1624). This definition however is not unanimously supported, there are those with differing views such as Thompson (2000) who suggests that constructivism is not a theory of learning but a model of knowing, and therefore constructivism has yet to be used to build a theory of learning (Richardson, 1997; Thompson, 2000 cited in Richardson, 2003).   There are those who argue that to understand constructivism fully in education then one needs to dissect the basic construct of the theory and differentiate between the differing approaches, purposes and elements and their relationship to teaching and learning (Phillips, 2000; Matthews, 2000). Richardson (2003) states that "not all agree …that we are dealing with two completely separate and competing approaches. In fact, the two forms are beginning to come together with a focus on the social aspects of classrooms" (Richardson, 2003, p.1624). She argues that the differences are not around the construct and the approaches being applied but the focus of the lenses (Van Glaserfeld, 1993) used to view constructivism: *psychological or sociological.*

In both approaches, "there is an assumption that meaning or knowledge is actively constructed in the human mind" (Richardson, 2003, p.1625). However, in the sociological approach the focus is on how the development of the formal knowledge has been created or determined,

while the psychological approach focuses on the ways in which meaning is created within the individual mind and how shared meaning is developed in a group process (Richardson, 1997; Richardson, 2003). This latter view is important in the creation of the NSW QTM since it is used to make relevant what may be called a constructivist pedagogy. Constructivist pedagogy differs from other models of education because its fundamental grounding is in theories of learning and extends beyond mere pedagogical strategies and concepts of teaching. Some of the key and fundamental elements of *constructivist pedagogy* or *constructivist-based* practice are dismissed by Fosnot (2006) who contends they are misnomers since in reality constructivism is not a theory of teaching but a theory of learning.

Having said this, it is recognized that there are some fundamental shifts in education that have affected the way teachers teach, students learn and knowledge is constructed. These fundamental shifts are reflected in the role of teachers and how they orchestrate the learning process and students' meaning of the learning being undertaken, especially students' ability to deconstruct and reconstruct knowledge and synthesize meaning regardless of prior knowledge; and in a new learning environment. All of these she contends are moves to "support cognitive construction" (Fosnot, 2006). The shift in perspective to constructivist pedagogy suggests an approach to teaching that provides for learners "the opportunity for concrete, contextually meaningful experience through which they can search for patterns; raise questions; and model, interpret, and defend their strategies and ideas". The "classroom in this model is therefore seen and constructed as a mini-society, a community of learners engaged in activity, discourse, interpretation, justification, and reflection" (Fosnot, 2005, p. ix).

It should be noted that constructivist pedagogy is not the only theory that places the student at the centre of learning; there are many innovative approaches to teaching and innovative learning environment strategies that also promote this essential element. This perspective is also observed in much of the literature being produced by organizations such as, the World Bank (2008), OECD (2010), and UNESCO (2009), where researchers and educationalists are being asked to analyze information and variables and propose theories to support their position on education in the 21st century, and specifically theories on educational agendas through the developmental lens (Becker, 1999; Davies, 1999; Riel, 1999). Arguably, these are not new theories and most of the positions are merely restatements of known variables and other factors. However, what could be seen as something relatively new is the way new models support innovate learning by calling for "a shift in the role of teachers from the 'sage on the stage' to

the 'guide on the side'" (OECD, 2010, p.15). Yet overall, many of the approaches that are being highlighted as new approaches are ones that have been extensively addressed by constructivism in education, and by the strategies that are promoted for the improvement of learning on the part of the students, and teaching and learning on the part of the teachers.

It is further recognized (Fosnot, 2006; Richardson, 2003) that there are many issues and challenges to the application and use of a constructivist approach for teaching practice. The first relates to the confusion by educators between discovery and hands-on learning, with constructivist based strategies focusing on facilitating the process by which students can engage in cognitive construction. Fosnot's perspective is that constructivism does not lend itself to a perfect conclusion where all students arrive at the same answer at the end of the lesson; "we cannot direct learning to get everyone to the same point at the end of the lesson. We can only facilitate '*coupling*' with problematic situations, help raise questions and puzzlements, and support discourse and development" (Fosnot, 2006, p.3). The second relates to educators' perceptions of learning and acquired knowledge. Here it is argued that learning based on a constructivist approach involves "deep conceptual learning which involve structural shifts in cognition" (Fosnot, 2006). In other words, the meaning is drawn from interactions between the individuals engaged in the process. "Meaning is understood to be the result of humans setting up relationships, reflecting on their actions, and modeling and constructing explanations" (Fosnot, 2006, p.3).

According to Elkind, regardless of the various perspectives and or interpretations of constructivism there is one thing that all these views have in common and that is "the proposition that the child is an active participant in constructing reality and not just a passive recorder of it" (Elkind, 2004, p.306). He further argues that what makes constructivist pedagogy a legitimate model for educational reform is because it is being driven by genuine pedagogical concerns and motivations. It is these concerns and pedagogical drivers that make it a viable model for effective teaching and learning practices as this apparently places it outside the influence of political and/or social events and places its effectiveness squarely where it needs to belong: with teachers and students.

There are critics who refute the notion that constructivist pedagogy can be a general approach to teaching because of its emphasis, its role of facilitating learning in particular, and perhaps unique circumstances. They perceive this approach to be more effective within specific subject

matters such as reading, writing and languages. Many of the initial work in this field of specific applicability focused on the work of Freedman, (1994), Wilson and Wineburg, (1993) and Wilson, (2001). It claimed that more structured subjects such as Mathematics and Science are not as easily transformed as they are fields or disciplines where knowledge is viewed as facts based on definite principles and laws and therefore cannot be deconstructed and reconstructed. With these subjects, individuals cannot construct their own meanings and present their own interpretation because these may, and probably will, fall outside of the only accepted interpretation based on established laws (Ishii, 2003; Fosnot, 2006). Richardson (2003) acknowledges that despite all this there are some consistencies and agreed commonalities amongst the characteristics of constructivist pedagogy:

1. Attention to the individual and respect for students' backgrounds and developing of and beliefs about elements of the domain (student-centered);
2. Facilitation of group dialogue that explores an element of the domain with the purpose of leading to the creation and shared understanding of a topic;
3. Planned and often unplanned introduction of formal domain knowledge into the conversation through direct instruction, reference to text, exploration of web sites , or some other means;
4. Provision of opportunities for students to determine, challenge, change or add to existing beliefs and understandings through engagement in tasks that are structured for this purpose; and
5. Development of students' meta-awareness of their own understandings and learning processes.

She does caution that while these are important descriptors of constructivist pedagogy they are not specific practices and should not be seen as such, as all of these characteristics are what teachers aspire to but are applied differently depending on the domain, age of the students, students' prior experiences, specific classroom and school contexts, and the teaching style of teachers (Richardson, 2003, p.1626). Fosnot (2005) contends that while constructivism is not a description of teaching and does not offer a *"cookbook teaching style"* or a packaged set of instructional techniques, there are some general principles that can be applied to educational practices.

1. Learning is not the result of development; learning is development. It requires invention and self-organization on the part of the learner. Thus, teachers need to allow learners to raise their own questions, generate their own hypotheses and models as possibilities, test them out for viability, and defend and discuss them in communities of discourse and practice.

2. Disequilibrium facilitates learning. "Errors" need to be perceived as a result of learners' conceptions, and therefore not minimized or avoided. Challenging and open-ended investigations into realistic, meaningful contexts need to be offered which allow

learners to explore and generate many possibilities, both affirming and contradictory. Contradictions, in particular, need to be illuminated, explored, and discussed.

3. Reflective abstraction is the driving force of learning. As meaning makers, humans seek to organize and generalize across experiences in a representational form. Allowing reflection time through journal writing, representation in multisymbolic forms, and/or discussing connections across experiences or strategies may facilitate reflective abstraction.

4. Dialogue within a community engenders further thinking. The classroom needs to be seen as a "community of discourse engaged in activity, reflection, and conversation". The learners (rather than the teacher) are responsible for defending, proving, justifying, and communicating their ideas to the classroom community. Ideas are accepted as true only insofar as they make sense to the community and thus they rise to the level of "taken-as-shared" (Fosnot, 2005, p.33-34).

Allowing for this type of process will support, encourage and promote development which is transferable across all subjects, aspects of experiences, and meaning. This appears to correspond to the demands of 21st century learning. The discussions and their implications on the perceived effectiveness of constructivism in education and specifically aspects of teaching and learning practices, while varied, do reach a level of agreement. This takes the form of an acknowledgement that the constructivist process of facilitating learning is a complex process that requires on-going reframing, cognitive reorganization, redefining of frameworks for teaching certain subjects such as mathematics; and on-going teacher development to ensure understanding and awareness of the changing landscape of learning.

The one consistent view that most constructivists are in agreement with when it comes to pedagogical practice is that the relationship and interaction between teachers and students and students and their peers stimulates meaning. It would therefore imply that learning activities in a constructivist setting would be characterized by such things as a focus on development, active engagement, inquiry, problem-solving, and collaboration with others to develop meaning and formulate ideas, interpretations and conclusions (Ismat, 1998; Fosnot, 2005; Richardson, 2003). The view here is that to be successful at this type of approach requires the engagement of three key elements: student learning, teaching skills that extend beyond mimicries and drill to exploration and discovery, and a reconceptualising of subject matter and subject knowledge.

In these terms, a constructivist classroom would "provide students with opportunities to develop deep understandings of the material, internalize it, understand the nature of knowledge development, and, and develop complex cognitive maps that connect together bodies of knowledge and understanding" (Richardson, 2003, p.1628).

The challenge is for the teacher always to have a frame of reference of the principles of constructivist pedagogy and its purpose as a learning, development or meaning-making theory which allows for students to make meaning from a range of activities encountered in their world. The litmus test is whether the teacher teaches to the needs of the students and thereby engages in a truly developmental process, or whether the teacher teaches to the prescribe lesson that was developed by curriculum designers with objectives, purposes and even lesson plans targeted at formal assessment or evaluation of the knowledge gained yet the reality is in almost all developed countries more and more the measurement of effective teaching and learning is evaluated by students' performance on standardized tests. We now know and it has been confirmed by researchers that students' performance on tests does not equate to either effective teaching or effective learning. As articulated by Fosnot (2006, p.279), "reform-based pedagogical strategies can be used without the desired learning necessarily resulting".

Again in terms of the broadest and minimal interpretation of constructivist education, teacher development and teaching skills to be effective require a paradigmatic shift in both the way teachers teach and the way teachers are educated. To be really effective in both aspects of teaching and learning within the constructivist pedagogy requires a transformative approach to both the design and structure of classrooms and what are known as classroom practices. In order to achieve this level of understanding teachers need to undertake the same level as students of exploration and discovery of what it means to learn and to achieve effective teaching. The first step in the process is that teachers need to understand learning as a developmental process. They need to understand and comprehend context and the role that context plays in the developmental process of learning (Fosnot, 2005). Fosnot illustrates this notion of the relevance of context, "by choosing and designing situations that have the potential to perturb learners' initial strategies, teachers can employ context as a powerful didactic that supports the development of big ideas (structuring) and strategies (schematizing)" (Fosnot, 2005, p.281).

Brooks (1990) contends that one strategy that could help teachers is to think of teaching as a type of research project in which "students must develop the necessary content-bound understandings without sacrificing the intellectual autonomy essential for the construction of meaning" (Brooks, 1990, p.69). The teacher's daily challenge is to transform ideas into action. In the school environment the ideas often come from the district, school, principal, grade level and curriculum guidelines, teachers' manuals and individual teachers' own views (Brooks,

1990). Under these circumstances it is the teacher's personal pedagogy that will make sense out of all these expectations, and is critical to directing students' development and learning.

From a constructivist perspective learning transformation takes place when teachers engage in constructivist teaching practices that transcend the typical classroom practices; when teachers acknowledge that learning and teaching are viewed as a "journey across a landscape" rather than a "trajectory, or learning line" (Fosnot, 2005, p.287). To be effective teachers need to have not only in-depth knowledge of the subject matter but also the "landscape" and how to traverse it while focusing on the developmental aspects of students. As pedagogical strategies need to be aligned with the process of learning, then this can only be achieved through practice. By focusing on principles of teaching that need practice one can see the value and benefits of this approach as it supports rigor, empowerment, and the construction of genuine understanding (Fosnot, 2005, p.290).

One of the key issues within constructivist pedagogy and its purported lack of a theory of teaching is the question of the subject matter domain. This goes to issues of the depth of knowledge required and its balance with the teachers' knowledge of students' learning process. Wineburg and Wilson's (1991) view is that subject matter presentation is affected by the teacher's own understanding of the subject matter (Richardson, 2003). This view is supported by Richardson (2003) who finds that research has supported this perspective and has expanded its importance for a constructivist classroom. In other words it is important for a teacher applying a constructivist approach and practices to have deep and strong subject matter knowledge. For Richardson (2005) this "requires knowledge of the structure of a discipline as well as its epistemological framework. Such knowledge helps teachers in the interpretation of how students are understanding the material, in developing activities that support students in exploring concepts, hypotheses and beliefs, in guiding a discussion towards a shared understanding, providing guidance on sources for additional formal knowledge, and at times, correcting misconceptions" (Richardson, 2005, p.1631).

There are researchers and theorists who feel that while this is a reasonable expectation for teachers in high schools or secondary schools who major in a particular discipline and therefore need to know and teach the content. However, many also contend that this is not the case for primary or elementary school teachers. The discussion focuses on whether elementary school teachers would have the required level of knowledge in all the disciplines they are expected to

teach and issues of the level of transference of understanding across subject matter areas and contexts (Detterman & Sternberg, 1993 cited in Richardson, 2005). Beyond these issues of pedagogical application, it has been argued, however, that there is another key group of players in school education who need to be included and engaged in the principles of constructivist pedagogy. These are the curriculum developers and the instructional design specialists. These individuals need to be included to ensure consistency in philosophy, focus and expected learning outcomes since they are the designers and constructors of the materials and resources that teachers are expected to teach. The other key players are the principals since they are the drivers of the vision of education and set the expectations of school performance and student achievement within the schools.

In this context of the role of educational leadership, the promoters of constructivist pedagogy recognize that there are two different perspectives at play: one advocating the training of teachers to teacher in a particular constructivist manner (Black & Ammon, 1992) and another involving working with teachers to help them understand their own tacit understandings, how these have developed, and the effects of these on their actions and subsequent views of teaching and learning. The first approach is very direct and is often applied to the teaching of particular subject matters (Richardson, 2005, p.10). Richardson (2005) in her work with teacher educators also found that the first approach often "involves considerable direct instruction in theory and practice". The second approach "attempts to model a manner of involving students in investigations of premises and perspectives which may be used by pre-service students when they begin to teach" (Richardson, 2005, p.10).

Authors such as Gergen (1994) and Richardson (2003) do caution about the transferability and use of constructivist pedagogy into other cultures and with minority students that are not a part of the dominant culture, as it is "a concept established constructed and practiced within our current cultural, political and economic constraints and ideologies" (Richardson, 2003, p.1632). An important caution is that one has to be aware of the expectations of educational authority and the established purpose of education; for example, "a school board might be responding to low test scores and wants improvement through a basic skills approach or the differences in cultural beliefs about the nature of teaching and learning" (Richardson, 2003, p.1633). These are important elements that have to be considered in the applicability of a transformative approach such as constructivist pedagogy on which the NSW quality teaching model is designed.

Richardson further contends that we need to be cautious when dealing with cultural differences and the transferability of the model because the current roots of the model are western, liberal, individualist (Eurocentric) and developed within a privileged structure, and while generally accepted in the United States and Australia might not be as relevant in societies where community maintenance and development is more important than individualistic development. Her conclusion is "that the most serious problem with the use of the constructivist pedagogy construct occurs when it becomes valued as best practice for everyone" (Richardson, 2003, p. 1633). This is an important factor that will be analyzed in pending chapters when determining the applicability of the model to the Abu Dhabi context.

The constructivist approach to pedagogy has its critics because of its lack of descriptive practices, and it also has its merits if we are seeking a transformative approach to teaching and learning. However, it has been acknowledged that to be grounded in the principles of authentic learning teachers must be prepared to work in a constructivist way, as it cannot be business as usual. There has to be concerted efforts on the part of all the actors engaged in the delivery of education to make the shift; starting with teacher preparation, on-going development (professional training), field experiences, field research and the application of the findings within the established learning communities. The implications are that there has to be changes to the curriculum, readiness on the part of the system and society to accept and support the pending changes, and an alignment of these new requirements to the overall system.

4.3   Reforming schools: leaders and teachers

Senge's (1999) analysis of school reforms is that for reforms to extend beyond mere prescription of improvements, they must seek to restructure the conceptions behind change and construct a new conceptualization of systemic reform. It is apparent that for reform to have lasting transformation it necessitates the education system to not only change the assumptions that justify the basis of education but a rethinking about its adequacy, validity, and relevance to meet the needs of 21st century students and society. This rethinking does not relate only to the classroom, but also to how teachers and school leaders are prepared to manage and lead in the new education environment, and the quality of the teaching that takes place within the learning environment.

The issue of preparation of teachers and school leaders to meet the new challenges being faced by the schools has received limited if not minimum attention, and has been unaffected for the

most part by educational reform policies. The system, reacting to policy directives and the demands of the community, has identified and focused on areas of increased student achievement and improving curriculum. However, for the most part it has ignored the preparation of teachers and school leaders to teach and scrutinize the new information, the quality of the teaching, and the educators' ability to engage in reflective practices that enrich and improve pedagogy. In "the current era of globalization, school leadership issues have become increasingly debated and explored in an international and comparative context" (Pashiardis & Brauckmann, 2010, p. 16; Huber & Pashiardis, 2008; OECD, 2005).

In addition to the new challenges, teachers and school leaders are expected to influence student achievements and improve performance in their schools. However, to effect these changes they require knowledge, insight and the capability to deconstruct and reconstruct knowledge, elicit creative responses, and promote multiple levels of learning (OECD, 2005; UNESCO, 2008; Huber & Pashiardis, 2008). Reports such as the Education For All (EFA) report of 2009 states, that an effective learning environment relies on basic infrastructure, professional leadership, motivated teachers, sufficient instruction time and resources, the use of performance enhancing monitoring and evaluation, and adequate funding (UNESCO, 2008). The OECD (2005) report also highlighted that strategies to improve the quality of school leadership must be a central element in any national plan to address the teacher quality challenge. In this regard "principals and school leaders are responsible for creating the conditions under which teachers can perform well, achieve job satisfaction and continue to develop professionally" (Pashiardis, & Brauckmann, 2010, p.2).

Lighthall's (1973) critique of Smith and Keith's (1971), and Fullan's (1991) observations conclude that "leadership commitment to a particular version of a change is negatively related to ability to implement it" (Fullan, 1999, p.95). They found that individuals with vested interests do not necessarily have the means or the know how to positively influence change. They tended to lack the ability to drive the process and establish strategies for implementation (Lighthall, 1973; Fullan, 1991). The basis of the supposition is that educational change is a process and must take into consideration all the complexities of the process, the realities of people and the planned changes rather than the level of commitment to or desire for the planned change. Lighthall (1973) found in his case study that problem solvers have the tendency to jump from their private or personal plans to public implementation of these plans, without

going through the change process, nor addressing the different realities necessary to cultivate and support the implementation plan.

Researchers such as Hall and Loucks (1977) surmised that making change operational and institutionalized within a system is only part of the challenge and that renewal rather than institutionalization is a more appropriate focus for school improvements. Renewal implies an organizational culture is geared towards continuous learning and improvement, rather than completing the implementation of individual changes (Stiegelbauer & Anderson, 1992). These earlier research and analysis are further supported by research by Huber, & Pashiardis, 2008; OECD, 2008; Pashiardis, & Brauckmann, 2008; Pashiardis, & Brauckmann, 2010 who highlight the importance of the school leader in the broader cultural and educational context of the school and in the community. "Since schools are embedded in their communities and in the particular society, schools and their leaders have to cope with, to support or otherwise react to the social, economic and cultural changes and developments taking place. Schools, and consequently the expectations on school leader, also change as a more subtle and indirect forces in society" (Pashiardis, & Brauckmann, 2010, p. 3).

Change Theorists Fullan (1991) and Hargreaves (1992) argue that to assess the potential for success, current models of change ought to evaluate an organization's capacity for continuous renewal and growth. David Tyack (1991), in his essay on Public School Reform: Policy Talk and Institutional Practice further explores the complex relation between policy talk and institutional change. His research indicates that distinction must be drawn between 'reform periods', 'burst of reform rhetoric' and 'long term trends in practice'. Reforms he stated, "often go through distinct phases, penetrate different types of school districts at different rates, and have different impacts on various social groups" (Tyack, 1991, p.3).

A review of established school reform frameworks indicate and support the notion that there is a misconception that systemic reform is a prescribed action for all that aids the school systems. Equally, there is research that clearly indicates that education reform cannot be a prescription for improving education. Change cannot be implemented as if the system exists in silos but should be reflective of the connectedness of the different parts of the system. The system cannot be prepared for change if the process does not involve a rethinking of the philosophy of change, especially when the reforms are all encompassing and pervade all aspects of the system.

The rethinking of the philosophy of change should encompass a framework for the delivery of quality teaching within a quality education environment. The re-conceptualization should also involve a process of planned change to bring about practical realities that influence both the pedagogy of teaching and the quality of the environment within which the reform will take place. Researchers such as Chin and Benne (1969) support the concept of planned activities. Their perspective is that deliberately setting out to implement an innovation is an example of a *planned change*. Planned change they deduce occurs when "attempts to bring about change are conscious, deliberate and intended" (Chin & Benne, 1969, p.33), including when the focus of the change "is the conscious utilization and application of knowledge as an instrument or tool for modifying patterns and institutions of practice" (Chin & Benne, 1969, p.33).

To initiate planned change the system must have available within its environment individuals who are educated and infused with the knowledge and insight to facilitate the planned activities. These individuals would be provided with the knowledge, the vision and a perspective of the challenges, the framework and aptitude to act as a catalyst for change. Chin and Benne further note that by uniting all tactics in service to a systemic strategy, change agents are able to maneuver and monitor the process, which improves the chances of the initiative being effective and sustainable. The role of the change agent has been characterized as a "professional who has as his (or her) major function - the advocacy and introduction of innovations into practice" (Carlson, 1965, p.5). The role of a change agent (Glasser, 1965; Rogers & Shoemaker, 1971) in the implementation of reform is crucial to the success of any program because this person is the intermediary between the policymaker and the practitioner.

Consequently, the most effective change agent is one that is *internal* – an individual who can readily establish working relationships that facilitate change in teachers' behaviour and others (Beaton, 1985; Berman & McLaughlin, 1977; Crandall & Associates, 1982; Fullan, 1982; Miles, Saxl and Lieberman, 1985; Showers, 1985; Strudler, 1987). According to Joyce and Showers (1981, 1983) one of the primary roles of a change agent is to act by demonstrating and exhibiting the new practice that is hoped to be achieved. They note further that the acquisition of knowledge gained by learning within the environment is best shared and supported by someone internal to the site undergoing change (Joyce & Showers, 1981, 1983; Showers, 1985). According to West-Burnham (2005), to have profound change there needs to be a re-conceptualization of how schools are to change. To accomplish significant change the system must move away from the concept of improvement to one of transformation. Transformation,

he states, implies significant change taking place to certain elements within a complex process. By focusing on transformation certain elements can be changed, and managed and thus impact on the whole.

There has been some acknowledgement that teachers and school leaders are key components of the process of educational reform, however, there have been limited changes in the way they are educated and trained for their roles. There has been no active movement to transform and amend their roles, and a subsequently new approach to their training and professional practice to enable them to effectively meet the changes in their role. The role of school leaders appear to take on new importance by 2012 primarily due to the work of West-Burnham, 2005; UNESCO, 2009; OECD, 2008; Pashiardis, & Brauckmann, 2010; McKinsey, 2010 and Commonwealth Secretariat, 2012. "It would be fair to say that at no time in recent history has school leadership been such as issue of global concern" (CCEAM, 2012). The 2010 McKinsey Report *Capturing the leadership premium: How the world's top school systems are building leadership capacity for the future* noted that education systems now believe more than ever that leadership is becoming critical to the success of schools (p.5). The report, further stresses the importance of pedagogical leadership and its related purposes. It identified three related purposes:

- a focus by leaders on pedagogy which affects student learning
- a focus on teachers' professional learning, and
- collective action by leaders and teachers to improve the environments of their schools

The authors argued that "ensuring that education systems have ample stocks of quality 'pedagogical' leaders who are committed to making a difference in teacher performance and student achievement is justification enough, to place leadership development amongst the highest of educational reform priorities" (McKinsey, 2010 cited in CCEAM, 2012). This perspective was supported by the OECD (2005) who acknowledged that strategies to improve the quality of school leadership must be a central element in any national plan to address the teacher quality challenge. The engagement of principals as an essential part of the student learning environment and school improvement is a relatively new concept in the context of the United Arab Emirate school system. Traditionally, teachers are seen as the doers in the implementation process in schools. In other words, initiatives that had the potential of impacting student achievement and the delivery of curriculum in the classroom were for the most part delegated to teachers. School leaders and specifically principals in Abu Dhabi

schools are seen as the administrators or management with no pedagogical or leadership role within the school.

According to a Report by UNESCO, *EFA Global Monitoring Report* (2004), "Several decades of pedagogical research have now clearly shown that what teachers do in the classroom is undoubtedly the key educational determinant in student learning and achievement" (p.1). The authors acknowledged that while not all teaching practices are equal in this respect, it is important to identify and promote the most effective practices. This they characterize as, "practices which help pupils to achieve desired learning outcomes in the most effective way" (Gauthier, & Dembélé, 2004, p.2). From this perspective, there is a general rejection (on the part of researchers, decision-makers, teacher trainers, educational support staff, parents, classroom practitioners) of what is referred to as "traditional" teaching. "This is an essentially expository form of teaching, dominated by the teacher, which relegates pupils to a passive role, reduces their classroom activity to the memorization of data to be recited to the teacher, and in particular, leads to the acquisition of skills of a lower taxonomic level" (Gauthier, & Dembélé, 2004, p.2). The proposed alternatives to this form of teaching may be grouped into two main categories: structured teaching approaches and discovery-based approaches. Advocates of each category agree on one fact: the acquisition of knowledge is a constructive process, and how to support this process effectively in the school environment is the question dividing them (Gauthier, & Dembélé, 2004).

Most sociological studies on education since the 1960s, including one of the most well known reports by Coleman, et al. (1966) confirms the effects of teachers on the performance of students. The report noted that even though teachers and schools have very little impact on the academic achievement of students from disadvantaged background the school could counterbalance the weight by having quality teachers. The teacher factor or variable, they found had a pronounced effect on the performance of schools and students. Coleman et al., (1966) also underline that, "regardless of the pupil's ethnic group, good teacher exert a greater influence on the achievement of pupils from poor socio-economic backgrounds" (Gauthier, & Dembélé, 2004).

The perspective of teachers as being essential to the process of educational reform is a widely held view and one that is promoted around the world (Davies, 1999; Riel, 1999). Identifying effective teaching practices necessarily implies that teachers have the power to influence

student learning. The question that is asked by researchers is whether this influence is more or less important than other factors such as family background, student motivation, intellectual potential, etc.? The works by Wang, Haertel and Walberg (1993) attempted to answer this question. They found that the two most prominent factors are directly related to the teacher. The research found that teachers were the most influential factor in student learning, ahead of the family.

In the analysis of the effects added by the teacher and the school the research concluded that "traditional standardized assessments make it difficult to establish a direct link between the quality of teaching and the achievement outcomes of pupils. The performance observed with this form of assessment is influenced by several other factors, including pupils' prior knowledge, their skills, the quality of prior instruction, and socio-economic level. Such a form of assessment they found did not isolate teacher impact from other educational or non-educational factors influencing academic performance (Meyer, 1997). Based on the results of these research it was concluded that given the ineffectiveness of the traditional measurement of teachers impact on students performance it might be more effective to measure the impact of the value-added variable.

The limitations of traditional assessments may nonetheless be offset by measuring teacher value-added factors (Drury, & Doran, 2003). The research confirms that the major determining effect of teaching on student learning was through value-added factors. The report concluded that "an increasing number of studies are pointing to the following conclusions: the teacher, through class management and management of teaching, influences student learning; consequently, by improving teaching practices, student performance can be improved" (Gauthier, & Dembélé, 2004, p. 9). The overall conclusion of these studies is that teaching practices thus have substantial power to influence student achievement. But precisely which teaching practices are considered most effective? continues to be the primary focus of global discussions.

The importance of teachers and their role in the improvement of students and school performance was highlighted in the Dakar Framework for Action Report (UNESCO, 2000) in which the notion that teachers are the driving force and the catalyst behind educational reform is widely supported by policy makers and political leaders. It states, "teachers are essential players in promoting quality education, whether in schools or in more flexible community

based programs; they are advocates for and catalysts of change. No education reform is likely to succeed without the active participation and ownership of teachers" (UNESCO, 2000, p.9). Riel's (1999) contends that teachers will be the primary determinant of quality of education at all levels and that as technology will increase, there will be more need for good teachers and skilled teaching (p. 11). She argues further that "we need to increase our investment in human resources an in the professional development of educators rather than in technological approaches". Henchey (1999) also concers with the above points and further reminds us that "new kinds of teachers are needed for a reformed educational system in the future. Some teachers need to be models of artistic skill or maturity-some coaches and mentors and some designers of learning programs-while others need to be communicators-some managers of learning systems and some experts in different areas" (p. 11).

Yet without relevant and competent school leaders, also being engaged as key change agents within their schools, and as pedagogical leaders, in the Abu Dhabi context reforms may very well become derailed as they have in the past.

4.4   Education in an Arab-Muslim Context

"Eduction has played a central role in the social and economic development of the Arab world" (Salehi-Isfahani, Hassine, & Assaad, 2012, p.20; Davies, 1999; Becker, 1999). Education in Arab countries is tradition bound, and is usually entwined and even driven by the dominant religion of the countries. Altogether it is diven by religion, community, culture and heritage and the social fabric and structure of a tribal structure and with government demands as a further complexity. Within this complex and religious structure basic education, for the most part, is conducted within mosques and by Imams[3]. Islam sees education as fundamental to its advancement. (Kadi, 2006). The acquisition of knowledge is garnered through teaching and learning the Qur'an.   According to Kadi (2006, p.2), "seeking knowledge was encouraged in the Qur'an and in numerous traditions (hadiths) of the Prophet of Islam, Mohammad as well as his actions".

Within Islamic societies there are two instituitons of learning: the traditional madrasa, usually linked to the mosques with lessons conducted by the Imams, and whichwas considered the true educational insititution; and the more modern the maktab, which operates more like a

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[3] An Imam is an Islamic or prayer leader of a Mosque

school with an assigned teacher. Teaching in madrasas and mosques is highly structured and relies on memorization. "Reliance on memory was highly prized, repetition was cultivated, and the taking of notes from dictation (*imla'*) was highly valued, given the usefulness of citing materials verbatim during disputation" (Kadi, 2006, p.6). The modernization of society, the interconnectedness of the world, and an increase in secular schools that introduced new curricula and teaching methods - primarily European- meant the influence of religious institutions such as mosques and madrasas shifted immensely. This reform not only struggled against the perceived disconnection from the principles and practices of the religion and the mosques, but also struggled with issues of national identity and its relationship to government run secular schools (Kadi, 2006). Islamic empowerment and identity are central precepts of Islamic education and its knowledge development and often can pose a challenge when nation states attempt to modernize and reform their education systems (Massialas &Jarrar, 1983,1987; Mazawi, 1999).

According to Al Taboor (2008) the development of education in the UAE historically transitioned from self educated and gained knowledge by imitation and contacts to more structured with educated teachers. "Latterly education developed by teachers who had knowledge in one science. Education in the UAE developed in that way from traditional simple style to systematic education based on curriculums and lessons" (Al Taboor, 2008). The UAE education system he states went through four type of systems:

- First type: No formal education-Mutawwa- this type of system the teachers depended on memorizating the Holy Quran abd the profits Hadeeth (sayings) along with practicing writing and calligraphy plus knowledge in Islam and Wodow (washing before prayer). Under this system a different kind of Mutawwa education developed as a result of the difference in lessons performed by some of the Mutawwa and because of the variety of the culture and wide knowledge. This lead to a difference in educating children and continued until oil was discouvered when it started to lose its role until it totally disappeared.

- Second type: Scientific Circle Education- this type of education was practiced by a few scientists, scholars and intellectuals who had a lot of knowledge in religious education, history and grammer. It was held in Mosque's or in the private homes of the scholars or other important persons in the community. Circles and lessons were prosperous for a long time. Scientific circles and religious lessons were the recourse of knowledge and religious education. Scientific and religious schools were replaced by developed schools that taught modern lesson curriculum.

- Third type: Developed education or semi-systematic –the developed period of education began when pearl merchants (tawaweesh) were affected by the Arabian reforming strategies. The country opened what were termed *enlightening schools* in

cities and brough scientists to manage, supervise lessons and process of education. During the 1930s a number of reform schools were founded and supported by the 'foundation of knowledge department'. These schools were affected by the second world war and the decrease of commercial exchanges in the Gulf. The UAE however held onto and enhanced its unique and distinctive curriculum developed in the Reformation School which resulted in a systematical system.

- Fourth type: Modern Systematical Education- the first systematical education system appeared in 1954 which is referred to as the modern or public education system. This type of education was organized and provided by state schools, classes and curriculum along with tests and certifctes given to students at the end of the school year became more formal and institutionalized. Systematical education (current system) was developed in two stages: first depended on local governments and knowledge departments and the second a more fomalized system funded by the federal government. This also saw the establishment of Federal Ministries such as the Ministry of Edcuation and Youth responsible for the different stages of education. These modern schools were of different structures and styles to the older traditional one, and equipped with new tools and instruments and the need for trained teachers (Ministry of Education, 2007; Al Taboor, 2008).

The country's growth and progress from a traditional type of education system where the focus was on practicing writing and calligraphy plus religious education (knowledge of Islam and Wodow), reading and memorization of the Quran, to a more formalized structure with lessons and curriculum that extend beyong the local community. The policymakers recognized that they not only had to improve the school system beyond its structure, new curriclum and teachers but that to be competitive it needed to reform the whole system. It further recognized that to be an internationally competitive society all of its citizens must have equal access to quality education and that "losing a substantial percentage of children to academic failure should no longer be acceptable for any nation that aspires to suceed in a globalized economy" (Emirates Center for Strategic Studies and Research, 1999, p.6).

"For decades governments have promoted free public eduction as the main instrument for spreading the benefits of economic development widely. These policies have been successful in some respects but no others. They have increased years of schooling at a rapid pace, but have failed to raise the qulaity of education" (Salehi-Isfahani, Hassine, & Assaad, 2012, p.20). For many countries in the Middle East this recognition for transformation was driven by increased demands of developmental and international organizations and foreign governments especially through their financial and technical support, as well as the international community's commitment and obligation to Education For All and the Millennium Development Goals (Herrera, 2008;Salehi-Isfahani, Hassine, & Assaad, 2012; Ibraham, 2010; Chapman, & Meric,

2009). Underpinning both documents is a blue print for the elimination of poverty, advancement of education, access to social and human services and the improvement of rights and lives.

In the Middle East educational success for all is still not an expectation; it is in some countries considered to be a privilege. This lack of expectation of all students' academic achievement is referred to as "educational triage". According to Davies (1999), this "means that from 20-30 percent of students are not expected to achieve much academic success in school" (Emirates Center for Strategic Studies and Research, 1999, p.7). Low expectation is practiced across the region and is used to distinguish students based on socio-economic classes and ethnic groups. The type of negative perception of some students' potential achievement often has a negative impact on their academic achievement resulting in drop-outs and retention issues, especially in boys' under-performance and under-achievement (Ridge, 2008). As Spring (1999) points out, "losing a substantial percentage of the children to academic failure should no longer be acceptable for any nation that aspires to succeed in a globalized economy. In addition, countries which aspire to be democratic societies can hardly realize that goal if a third of their population lack the skills and motivation for positive citizenship" (p.185)

This issue is often aggravated by the high percentage of expatriate teachers and the ethnicnicity, religion and nationality of the students. The issues and challenges within the system are further compounded by the the diversity of language and culture that exist within the region. According to the World Bank Report (1999a) "Language and cultural diversity are substantial and have a large impact on education systems and learning. Students enter school with diverse language backgrounds, including low and high dialects with very different grammatical structures and vocabularies. For students from poor areas, classroom instruction may be the first sustained exposure to classical Arabic. Moreover, different cultures coexist inside national borders, as suggested by the severity of obstacles to girls' enrollment in some areas…and the lack of these obstacles in others" (World Bank, 1999a, p.11).

This perception and ingrained challenges have impacted on countries ability to achieve the MDGs and EFAs goals and obtain the established standards or benchmark in terms of academic achievement for all children. The findings of Salehi-Isfahani, Hassine, & Assaad, (2012) is that not eveyone who attends school achieves the same amount of learning. In a review of international tests taken by 8th grade students globally and across the MENA region it

shows that, "students in the region vary in how much they learn in school. Test scores in the Arab world are low compared to the international benchmarks specified by TIMSS". They further found that "some of the richest nations in the Arab world that have provided free and open access to education have failed to motivate their students to learn" (Salehi-Isfahani, Hassine, & Assaad, 2012, p.21;Wiseman, & Al-bakr, 2013; Salehi-Isfahani, Hassine, & Assaad, 2012; Bindon, & Lane 2010; Ibrahim, 2010; Chapman, & Miric, 2009; Maroun, & Samman, 2008).

In a World Bank Report (1999a) the *Education in the Middle East & North Africa: A Strategy Towards Learning for Development,* the report acknowledges the advancement of education in the region, "the past decades have seen remarkable expansions in access to basic education throughout the Middle East and North Africa. Many countries are now poised to further increase access to secondary and higher education and to effect dramatic improvements in the quality of education offered at all levels" (p. 3). It also recognized however that "many countries in the Middle East and North Africa face an unusual set of challenges" (World Bank, 1999a, p.3) and tremendous hurdles in achieving the expected outcomes.

The findings indicate that while countries in the Middle East and North Africa are increasingly integrated into the world markets they are still in need of advance skills to ensure their competitiveness. "Their ability to compete in these markets and in globalizing service markets will depend on the quality of human capital they bring to the competition. Ensuring that all citizens are literate and numerate, that many possess a wide range of problem solving skills beyond that basic level, and that some have world class professional skills will require new curricula, improved teacher training programs, and pedagogic methods that encourage higher order cognitive skills. These demanding education reforms are crucial but often difficult to implement" (World Bank, 1999a, p.3).

This desire to use their education systems as a catalyst for developing internationally competitive human capital has been slow and the vision that was foreseen by the World Bank report has not fully materialized due to the endemic systemic challenges being faced by the region. Like most regions (developed and developing countries), Middle East countries are having to come to examine and identify strategies in educational development to meet the challenges that are affecting the achievement of their students (Wiseman, & Al-bakr, 2013; Salehi-Isfahani, Hassine, & Assaad, 2012; Bindon, & Lane 2010; Ibrahim, 2010; Chapman, &

Miric, 2009; Maroun, & Samman, 2008; World Bank, 1999a; ECSSR, 1999; Davies, 1999). Despite the complexity of the societies, the absorption of knowledge through almost universal respect for the practice of memorization, and long monotonous study it often makes it difficult to introduce change into the education systems (Ibrahim, 2010).

According to the World Bank (1999a) to achieve internationally competitive performance standards the region will need to focus on, and emphasize 'Learning to Learn' as, "Twenty first century production processes and economic competition will demand learning achievements beyond simple memorization and repetition" (p. 17). It further emphasize that "An indispensable starting point for this — a *sine qua non* of twenty first century education — is solid achievement in the core competencies of literacy and numeracy. Beyond this, workers will need to respond to ever changing tasks so that problem solving will be the next century's primary worker virtue, in contrast to the assembly line worker's ability to endlessly carry out rote tasks. Education will need to impart skills enabling workers to be flexible, to analyze problems and to synthesize information gained in different contexts. This requires focusing students on the process of learning — on learning how to learn — as well as on particular subject content" (World Bank, 1999a, p.18).

Traditional style of teaching and learning is often protected as it is seen as closely aligned to national identity and therefore is seen as being in need of protection; including the replication of the values of the patriarchal family (Chapman, & Miric, 2009; Bacchus, 2006; Ibrahim, 2010). "The Arab classroom teaches reverence to authority figures and complete submissionn to their will; it teachers not to question traditional sources of knowledge and wisdom; and teaches cooperation, not competition" (Massialas & Jarrar, 1991, p.144-45 in Mazawi, 1999). According to to Massialas and Jarrar (1991, p.xii), "Arab schools are presently in a state of transition. While, on the one hand, they tend to reproduce society and its norms, on the other they operate as as innovative agents seeking to transform society". This progression identified by Massialas & Jarrar, (1991), Mazawi, (1999) is also reflected in the four types of systems discussed by Al Taboor, (2008) that existed in the UAE. The desire for equality of opportunity, increased performance and improved internationally competitive human capital has brought educational reform to the forefront of social changes in the U.A.E (Davies, 1999; Spring, 1999; Reil, 1999; Beckner, 1999).

The region is susceptible to, and reliant on, the use of expatriate expertise to develop and implement changes in both the economic and education sectors. This reliance has highlighted two further challenges: one of international educational transfers and the significance of context (Crossley, 2012; Ibrahim, 2010; Lewin, 2007; Bereday, 1964), and one of lack of knowledge transfer and local capacity building (Crossley, 2012; Ibrahim, 2010). Foreign educational transfers can negatively impact the system if not adapted appropriately and if their fail to consider the significance of societal and cultural context. Lack of knowledge transfer is a key part of this relationship within the region that relies almost exclusively on expatriate workers, and the region suffers extensively from cyclical withdrawal after each period of change implementation. To achieve the required improvements and sustainability the existing challenges have to be delineated and long-term strategies established that will facilitate and develop a framework for lasting systemic educational development change.

There is a view of leadership in learning organizations that centers on creating positive change and as such must address intrinsic changes to the roles of teachers and school leaders. The approach must address the characteristics of a quality teacher and school leader and align their responsibilities directly to the improvement of schools and student performance. It should further identify teachers and principals as primary change agents, and establish a process for effective preparation and ongoing education and professional development to strengthen their skills and competencies (Pashiardis, & Brauckmann, 2010; OECD, 2008). The catalyst for change and the nucleus for sustainability of educational reform rest with having an effective reform plan, defined directives and a qualified and accredited teacher workforce along with the support of excellent school leaders.

To implement long-term system wide reforms effectively the education system must lay the foundation through well established drivers that underpin major areas such as school leadership, teacher quality, and curriculum quality and relevance. Essential to the success of any reform initiative in the UAE is human capital. According to Meyer (2009), human capital is the abilities, skills and knowledge of an individual that can be used in the labour market in exchange for wages. Human capital represents the students, the teachers and the school leaders and the extent and impact of their role in the society and in the labour market. Improving human capital will impact upon and offer positive gains to both private and public sectors. While education should not be viewed as a substitute for human capital, it does influence and can be linked to the skills and economic growth of a country.

Research by the World Bank (2008), and supported by Meyer (2009, p.3), indicates that "A one standard deviation increase in test scores on international tests is associated with an increase in the real per capital growth rate of 1.4 percentage point per year". Educational reforms tend to focus on aspects of schooling that are linked to quality - quality over quantity, quality of teaching, and quality of curriculum; as to why students are not achieving and schools are failing. The reality is that the vast majority of school reforms tried are unsuccessful in achieving their goals because while the reform is intended to measure quality it is in fact designed to measure quantity. The Middle East region and especially the UAE has special challenges such as demographics, high migration of skilled workers, and inconsistency in quality between private and public education, and higher educational training that has impacted its ability to implement successful educational reforms (Wiseman, & Al-Bakr, 2013; Chapman, & Miric, 2009; Maroun, & Samman, 2008; UNDP, 2002; Akkari, 2004). The U.A.E has recognized for some time that the state of education in its public schools was far from meeting the expected and required standards. However, after many attempts at system wide reforms it has been unable to move the educational system closer to international standards.

While there is limited data, available evidence indicate that there are several key issues that have affected the successful implementation of educational reforms. One of these issues is, "What is known about the quality of education-defined as learning achievement (Lockheed, & Verspoor, 1991). Second, "limited data suggest that the quality of teaching and learning has suffered as teaching forces in most countries expanded to meet growing enrollments" (World Bank, 1999a, p. 12); and third, the knowledge and competency level of the teaching workforce. Research on school improvements and reforms in Abu Dhabi has indicated that most school leaders had no idea where they wanted their schools to go, how they were going to implement the requested changes, and achieve the identified outcomes (ADEC, 2009; NSW, 2009). In addition, they also had no concept of how to address the challenges being created with the implementation of the changes. These reviews also highlighted the lack of quality of the teaching staff and their inability to implement many of the complex, multidimensional initiatives that were often being proposed (Murphy & Hallinger, 1992; Olson, 1992; Conley, 1993; Hallinger, 1992; Lockheed, & Verspoor, 1991).

Educational reform worldwide is being driven by the recognition of a new economic paradigm. The pervasiveness of technology in an increasing knowledge-based and service-based economy together with new labour market demands for quality and flexibility in products and services

puts a premium on human skills to sustain economic growth and competitiveness (Mograby, 1999; Reil, 1999; Beckner, 1999; Chapman, & Miric, 2009; Wiseman, & Al-Bakr, 2013; Welmond, 2006). The training of school leaders and the preparation of teachers, however, have not kept pace with these demands (Pashiardis, & Brauckmann, 2010; ADEC, 2010; Wiseman, & Al-Bakr; Commonwealth, 2012; Chapman, & Miric, 2009). Research findings of Pashiardis, & Brauckmann, 2010; OECD, 2011; McKinsey, 2010) are still very much in line with those of Fink and Resnick (1999) from some years previously. Educational institutions have continued to use the same "ineffective and irrelevant" methods… of training…that emphasized theoretical and standardized training" of administrators (Fink & Resnick, 1999) that no longer fit the role and the job requirements. They have continued to produce leaders who have not been introduced to the concept of planning for "*change*".

The challenge for teachers and education leaders in the 21st century is that they must be prepared to take on the demands effectively of the various roles required to implement the required changes successfully (Davies, 1999; Riel, 1999). The challenges and complexities inherent in the system and the demands of the learning community require and expect both the teachers and the leaders to be knowledgeable, flexible, insightful, and above all possess the general qualities of pedagogy and leadership to improve student learning. Comprehensive educational reform policies such as *No Child Left Behind* implemented in the United States of America in 2001 have reaffirmed the view that fundamental reforms cannot be legislated and achieve effectiveness without a quality teaching framework that addresses both the quality of teaching and the quality of the learning environment, and their relationship to improvement of student learning. If this becomes the case then it is expected that the fundamental transformation will then take place within teachers and school leaders and change would then be driven from within.

There are change theorists such as Friere who view change as a process and not as an instantaneous activity. Their perspective is change is a process, it is dynamic, ever changing and evolving, it is not static, and cannot fix all in an instant. Friere's view is that reform is not a task but a change in thinking and consciousness in how one thinks about change and the implications of that change. He states, "A pedagogy which must be forged *with*, not for, individuals or people" (Friere, 1970, p.4). The perspective is that only by reflection can the necessary engagement be highlighted, and it is only through this reflection and struggle that pedagogy can be made and remade, resulting in the necessary learning taking place.

There is evidence in the literature that suggests that the effectiveness of any reform initiatives and its impact on teaching and learning are directly linked to the strength of the teaching workforce and the teaching profession's ability to embrace the proposed changes (Spring, 1999). There are many societies in which new approaches would not be used in a positive manner and could be interpreted as a challenge to the society's tradition and cultural practices (Ibrahim, 2010). The evidence also indicate that contextual factors can also play a role and should be considered. According to Pashiardis, & Brauckmann (2010) " The context (factors) within which schools and school leaders operate can vary markedly across countries depending upon their historical traditions, social structures and economic conditions. They can furthermore vary in terms of weight, pace and criticalness" (p. 3). Consequently, reforms will need to be considered within the realities and context in which they are being implemented (Ibrahim, 2010).

The reality sometimes challenges the notions of tradition with its relationship to culture and religion. It may also be the case that many individuals in the teaching profession use these new practices to build and support their own self interests, often at the expense of quality teaching and learning. One such example can be drawn from the Arab region (Ibrahim, 2010; Herrera, 2008) and what is seen as the deliberate hampering of the education system by teachers as a means of building their own economic base through the development and expansion of private tutoring businesses.

Herrera (2008) found that tutoring businesses, or more specificly exam preparation businesses, are one of the most advancing entrepreneurial markets in the Middle East. In her article, she discusses the emergence of this market and level of privatization of exam preparation and the impact it is having on both students and teachers, especially in the achievement of student learning and the quality of teaching. Her findings were supported by Ibrahim (2010) who found that due to the low status of teachers , they are forced to engage in private tutoring after school to make a living. One such example she highlighted in a visit to a secondary school for boys, in Egypt, in 2007 where she conducted interviews with some of the teachers. Her visit took place in the middle of the second half of the academic term and her findings reveal the following: there were no students in the school, just clusters of teachers reading newspapers, talking and drinking tea. The students were all at home studying for examiniations which were three months away. While the students, both those sitting for exams and those not sitting, were out of school, the teachers and staff were obliged as a condition for obtaining their wages to be in

attendance for the entire school day and for the duration that students were out of school (Herrera, 2008, p.362).

Herrera, (2008) findings were supported by those of ADEC (2008) and ECSSR, (2008) surveys with teachers. Analysis of the data collected from teachers indicate a lack of a vision and focus on education and the development of students or teachers (ECSSR, 2008; ADEC 2008). They further indicate that the education system was being driven by narrow economic factors, low teacher status which has compeled teachers to undertake other means to improve their lives. This action has resulted in a demand driven market for their extra-curricular services so that students can pass examinations. This perpetual cycle was being driven by the teachers personal financial circumstances.This attitude she found was a reflection of an extremely competitive labour market. The exam preparation market was being driven by competition and the desire to be in the top percentile, to ensure entry into universities.

The result is that teachers were deliberately decreasing the quality of teaching in the classroom as a means of building their private businesses, as this would ensure that students enrolled in their tutoring classes. They would then tutor the students and thereby increase their performace on tests. This attitte Herrera felt was severely affecting the profession of teaching and the genuine care for the development, advancement and performance of students and the progression of teaching and learning. Due to dissatisfaction with the working conditions and low remunerative benefits, tutoring businesses flourished, and due to the economic value of the tutoring business and the competitive nature of the market professional learning activities were discouraged during examination study times.

This mentality and approach to teaching has expanded and progressively invaded the education system across the Middle East due to the region's reliance on expatriate teachers who have transferred this attitude and approach to education. Analysis into the patterns of teacher education in Egypt (Massialas, 1993; El-Sanabary, 1992; Mazawi, 1999; Ibrahim, 2010) show both its strengths and weaknesses and its impact on the current education systems in the Gulf Region where the majority of teachers (estimated to be over 30,000 yearly) are recruited from Egypt and where private tutoring is an accepted and competitve business necessary for acceptance into university and advancement in he society (Chapman, & Miric, 2006, 2009; Ibrahim, 2010).

According to researchers such as Chapman, & Miric (2009:323) "teacher compensation poses a paradox across much of the MENA, as a proportion of GDP, teachers' salaries are relatively high, suggesting that teachers do better economically than many others in their respective countries… However, this is not fully appreciated by the teachers, many of whom still regard their pay as low". They also found that "in many MENA countries, teachers supplement or even far surpass their regular salaries through private tutoring" (Chapman, & Miric, 2009:326). This type of behaviour or practice Chapman & Miric has termed 'perverse incentives' where the emergence of private turoring in the MENA is not only supported but accepted by parents. Chapman & Miric's view is that eventhough "research indicates that students who receive private tutoring perform no better that other students (World Bank, 2002:14), the pervasiveness of the practice suggests that parents think it does"(p.330). Others have also argued that this practice in in fact undermining the fabric of the system and jeopardizing the very aspects that they are trying to preserve and improve. They propose that, "despite the fact that parent see private tuition as a way of compensating for weaknesses in the education system, it may in fact weaken the system still further by encouraging teachers to withhold their best work during school hours" (Bray, 2000; Chapman & Miric, 2009).

The impact of globalization and the international development agenda are driving educational reforms in the Gulf region and are also defining the specific reforms that are affecting teachers such as those relating to school governance, curricula and pedagogies, student achievements and new norms and standards for educators (Weber, 2007; Chapman, & Miric, 2009; Badran, 1999; Spring, 1999; Ibrahim, 2010; Wiseman, & Al-Bakr, 2013; Salehi-Isfahani, Hassine, & Assaad, 2012). Weber contends that "Contemporary international development entails an increasingly integrated world; where changes and events in one part of the world are often acutely felt by the rest of the world" (Weber, 2007, p.280) and therefore any conceptual framework must consider not only the impact of cross-boundary effects but ensure that changes buildup on existing knowledge bases, not exclude them. The challenge for the Middle East and specifically the UAE is to ensure that whatever reforms are implemented reflect the specific needs and uniqueness of the region. While international studies and experiences are relevant and can form the basis for new strategies and approaches, caution should be exercised and should not replace and/or impose new concepts that are not applicable to, relevant to or sustainable in the region.

Some authors have argued that the push toward development strategies and international agencies' institutionalization of the aid policy agenda and results-based management has meant that countries could be compelled to accept and implement strategies known as 'common policies' that are structurally inconsistent with their culture, religious and socio-economic environments (Ibrahim, 2010; Pashiardis, & Brauckmann, 2010; Calderhead, 2001; Steiner-Khamsi, 2000, 2004, 2006; Arnove, 1980). Calderhead (2001) referred to some of these as 'Common policies as relating to the marketization of schools; the introduction of new curricula; accountability measures for teachers, students, schools; and teacher education' (2001, p.780). These common policies, while appearing beneficial since they are wrapped in a package of development support (such as those associated with international funding agencies, e.g., the World Bank, and international organizations such as the United Nations) could be inadvertently affecting local needs and success through the consequences of structural adjustment programs that are imposed under the guise of capacity building and technical support (Ibrahim, 2010; Steiner-Khamsi, 2000, 2004, 2006; Perry & Tor, 2009).

Many countries, including those in the Gulf Region (regardless of economic affluence), in a desire to obtain international acceptance and approval and indicate to the world that their programs are in line with globalization and developments elsewhere, are having to translate international targets and their implications into their education systems, especially in terms of teacher quality and classroom practices (Ibrahim, 2010; Chapman, & Miric, 2009; Salehi-Isfahani, Hassine, & Assaad, 2012; Weber, 2007; Wiseman, 2006; Wiseman, & Al Bakr, 2013; World Bank, 2008; Samoff, 2003; Department of Education South Africa, 2000; Newmann, King, & Rigdon, 1997). Authors such as Davies (1999), caution about what is beyond skills and knowledge. He contends that while we need education that offers all young people and adults solid academic skills and knowledge, this is not enough. He states that, "educators must recognize that academic achievement cannot be divorced from social, emotional, moral and physical development. Children and adult learners need personal and emotional nurturing ans support as well as knowledge and discipline" (p. 9).

In a review of curriuclum reform in Jordan, researchers reviewed 500 Jordanian primary teachers in the implementation of the country's 10 year eductional reform program (Al-Daami & Wallace, 2007). The study also provides comparitive data against other Arab states. The research highlighed that "over 25 years, the long held belief in the value of engaging teachers' professional commitment to curriculum change had been replaced both in Europe and the

United States by a more centralized system of control and accountability" (Hopmann, 2003, p.340 cited in Al-Daami & Wallace, 2007). Jordan had implemented its 10 year reform plan in a way that aligned with internationally agreed goals such as the achievement of universal basic education (i.e. UNESCO's Education for All (EFA) goals, also known as the Jomtien Declaration of 1990). The researchers found that the Jordanian centralized education system, with its tight control systems of product and process, negatively affected its school teachers. The research found that there was a direct link between the global pressures for educational changes and the negative influence on teachers and it concludes that this impact was systematically affecting the problem of social cohesion (Al-Daami, & Wallace, 2007, p. 341).

Similar to the Jordanian experience Ibrahim (2010) relates the expreince of western modern education reforms on the policies and practices in the Egyptian system. According to Ibrahim Egyption education policies and practices have been influenced by foreign transfer of western education policies, and conludes that "current Egyptian education is a product of inappropriately adapted foreign transfer coupled with domestic interest in spreading education with little attention to its quality"(Ibrahim, 2010, p. 499). He found that Egypt has received considerable support from the international community and has been influenced by global discourses, "yet its educational reforms have met little, if any, success as they have been introduced into a system with characteristics that are historically ingrained and resistant to change, and into a contested context of competing interest groups and a climate of mistrust. The result is a disoriented education system full of problems" (Ibrahim, 2010, p. 499). The findings of both the Jordanian and Egyptian examples indicate that in trying to reform their educational systems to be aligned to western models and practices, the countries failed to recognized the inappropriatenesss of the adapted models and their potential impact on the uniqueness of their specific societal structure, practices and cultural relevance, which has resulted in negative gains within their education systems.

4.5   Role of school leaders

Much of the research on school improvements has recognized that if systemic reform is to succeed, quality leadership must be present (OECD, 2005; UNESCO, 2008; McKinsey, 2010). The current insight into educational leadership is as follows:

> "….high quality educational leadership at all levels is a priority imperative, and is pivotal for improving educational, social and economic outcomes in developing countries. Improved education systems and improved quality of education relies on visionary, influential and competent educational leaders. Educational capacity

building to strengthen the leadership capabilities of key personnel in authentic and influential roles in educational organizations, systems and institutional leadership positions in developing countries requires the development and implementation of sound, distinctive and visionary leadership programmes." (Solin, et. al., 2008, p. 63).

It is clear that there is a perceived importance of leadership in schools and central to that leadership is the role of the principal. Principals are routinely called upon and expected to implement change, however, they are usually without relevant training and sufficient information to affect adequately the required change. Fullan's (1991) analysis shows that change will be unsuccessful if those in authority cannot convey their meaning of it to others. Within the education system, principals are essential to the effectiveness and sustainability of educational reforms and therefore are the primary change agents. They are frequently responsible for implementing the majority of the changes within schools, and thus within the role of change agents they must have a clear understanding of the intended change and use the implementation process as a "*process of clarification*" (Fullan, 1991, p.106).

One of the problematic sides of school leadership is the assumption that it is linked to some aspect of quantitative variables. Much of the research on school leadership is linked to the analysis of achievable outcomes such as the relationship between school leadership and student academic achievement (Huber, & Pashiardis, 2008; Pashiardis, & Brauckmann, 2010). There is little research that analyzes the specific variables of an effective school leader or their impact on the quality of the school. The research that has been conducted on school leadership is often ambiguous and does not delineate between the role of the principal and the quality of education and effective practices. Much of the research supports the notion that it provides "little specific guidance as to effective practices in school leadership" (Donmoyer, 1985, p.31). He further explains:

> "Recent studies of schools invariably identify the principal's leadership as a significant factor in a school's success. Unfortunately these studies provide only limited insight into how principals contribute to their school's achievements".

Hallinger and Heck (1996) in their research reviewed 40 studies that addressed leadership practices and the relationship between school leadership and student academic achievement. Marzano et al. (2005) in their research found that 69 of the studies actually examine the qualitative relationship between building leadership and the academic achievement of students. Others assert that the research does not support the notion that school leadership has an identifiable effect on student achievement. Marzano et al. (2005) concludes that it is very

difficult to prove statistically there is a relationship between school leadership and student achievement.

There are many, however, that espouse the reverse view and find in their research that effective education leadership makes a difference in improving learning (Pashiardis, & Brauckmann, 2010; OECD, 2005, 2008a; UNESCO, 2008; Weindling, & Dimmock, 2006; Leithwood et al., 2004). Leithwood et al. (2004), for example, in their research find that leadership does matter and is second only to teaching among school-related factors in its impact on student learning. This view is also supported by the findings of several researchers (OECD, 2005, 2008; Teaching Australia, 2007; McKinsey, 2010). The authors state, "the impact of leadership tends to be greatest in schools where the learning needs of students are most acute" (Leithwood et al., 2004, p.14). School leaders are predominantly seen as instructional leaders. Historically their role was to provide teachers with expertise in their subject area and provide guidance within the learning environment. This role was predicated on the basis that the principal was the most experienced and most educated person in the school and could therefore provide such supervision to the teachers. The principal's ability to provide leadership to teachers and specifically in teachers' development as it relates to their professional expertise was considered a primary task.

There are many research findings that do not support this perception and found the reverse view is just as prevalent. Many investigations into teachers' perception of the role of principals found that teachers feel they received little guidance and assistance from principals on curriculum and instruction (Anderson, 1987; ADEC, 2009; ECSSR, 2008). They found that most teachers in fact view the role of the principal as functioning as an administrative manager. This shift in role, it could be argued, may be linked to the introduction of Heads of Departments who are seen as having the specific subject expertise and are therefore more able to guide teachers in curriculum and instruction. It should be noted that this role of Head of Departments only exists in western school structures and is not necessarily replicated in regions or countries such as the Middle East or the UAE.

It is apparent that in order to advance the role of principals in their traditional function and have them become effective change agents, and thereby be able to provide strong leadership in schools, then there has to be a new definition of educational leadership. According to West-Burnham (2002), one needs to alter the prevailing perception of educational leadership from

institutional improvement to community regeneration. To him this alternative perspective is significant to the redefinition of the school leader's role. West-Burnham's perspective is that school improvements need to shift from improving the school as an institution to developing social capacity in the community. This shift will result in a change in the management model of an institution from one which is specific, focused and controllable to a model of leadership of the community which is diffuse and complex. Ultimately, he sees that a "key function of leadership is to extend the boundaries of shared meaning and expectations" (West-Burnham, 2002, p.9). West-Burnham views are supported by a number of researchers on the key elements in the changing role of school leaders and the effectiveness of schools (Thompson, 1994; Hargreaves & Fink, 2004; Weindling, & Dimmock, 2006; OECD, 2005, 2008a; Pashiardis, & Brauckmann, 2010).

The research findings generally is that within the framework of educational reforms in schools the leadership is best provided by principals (Hargreaves & Fink, 2004; Weindling, & Dimmock, 2006; OECD, 2005, 2008a; Pashiardis, & Brauckmann, 2010) as "they are in touch with all members of the school community, and are more aware of the complex relationships in schools, which enables them to help others in the school understand their unique role in systemic change" (Thompson, 1994, p.13). Research analysis indicates that education leaders contribute to teaching and learning by focusing on teachers and their "pedagogical content knowledge" (knowledge about how to teach particular subject matter content) (Thompson, 1994; OECD, 2005; Robinson et el., 2009; McKinsey, 2010; Crowther, 2009). Their leadership effectiveness is apparent in the strength and quality of the teaching and the level of achievement of the students.

Leithwood et al. (2004) found that principals were crucial to the implementation of education reform. They found that school leadership provides a "critical bridge between most educational-reform initiatives, and having those reforms make a genuine difference for all students". They also found that while leadership can come from many sources and individuals, however those in "formal positions of authority in school systems are likely still the most influential" (Leithwood et al., 2004, p.14). The rationale behind the identification of effective leaders and the proposed plan to nurture their qualities is viewed as the most effective means of ensuring sustainability. The functions of change agents are to guide, support and sustain an enriched learning environment. It does not imply the identification of the most charismatic individual who can do all things but of one who initiates a process that will ensure sustainable

productive change in schools. According to Hargreaves and Fink, sustainable leadership means distributing the leadership throughout the school community. They write, "If we want change to matter, to spread, and to last, then the system in which leaders do their work must make sustainability a priority" (Hargreaves & Fink, 2004, p.13).

Researchers have documented the importance of persons acting as change agents in support of planned change. James Ellsworth (2000) summarizes his perception of a change agent as follows: "a change agent wishes to communicate an innovation to an intended adopter. This is accomplished using a change process, which establishes a channel through the change environment. However, this environment also contains resistance that can disrupt the change process or distort how the innovation appears to the intended adopter" (Ellsworth, 2000, p.26). He further states that by uniting all tactics in the service of a systemic strategy, then change agents are able to maneuver and monitor the process which improves the chances of the initiative being effective and sustainable.

Much of the vast range of teacher quality and leadership literature is written from a western perspective with an implicit assumption that there is a particular or "right" teacher quality and leadership framework that can be applied to any organization to achieve successful growth and change. What is required however is a greater understanding of the dynamics and idiosyncrasies of a particular system and leadership within that particular organizational contexts grounded in local cultures and communities (Harold, & Stephenson, 2009). This is support by the findings of Huber and Pashiardis (2008) who stated that "The school leader is most often cited as the key figure in the individual school's development, either blocking or promoting change, acting as the internal change agent, overseeing the processes of growth and renewal. The school leader's role has to be seen in relationship to the broad cultural and educational contexts in which the school is operating" (Huber, & Pashiardis cited in Pashiardis, & Brauckmann, 2010, p.2).

4.6   Quality teaching

Pressure to address teacher quality is not a new phenomenon, however the stakes are much higher and increased competition worldwide has intensified the discussion and the need for improvements. The demand for more highly qualified teachers has intensified according to the OECD (2005) due to the "profound economic and social changes underway and the imperatives for schools to provide the foundations for lifelong learning" (OECD, 2005, p.27).

According to Coolahan (2002), the issue of teacher quality has intensified: as society undergoes profound and accelerating changes particular pressures emerge to improve the alignment between the education system and changing societal needs. The teaching profession becomes the mediator as it attempts to cope with the changes. The concern at all levels and evidence in the research is that teachers do not necessarily have the skills, knowledge and training to cope with the unprecedented challenges and changes (OECD, 2005; Skilbeck, & Connell, 2004; Hanushek, 2004). In recent years, the term 'quality teaching' has emerged as a key concept in the debate on educational reform, student achievement and school improvement. "Quality teaching" has also become a targeted goal for most education systems and governments in ways that are analytical, critical, and evaluative (Sakarneh, 2007).

A range of performance indicators has been devised formeasuring quality. Some of the more frequently used as identified by Pan (1999) include the following:

- Operating indicators- e.g. staff-student ratio, staff teaching workload, range of available options, range of support services.
- Research indicators e.g. research activities and publications, inventions and patents, consultancies,
- Teaching performance indicators-e.g. emphasis on excellence in teaching; innovation in curriculum/pedagogy; emphasis on practical training.
- Staff indicators- e.g. qualifications, staff development, service to the community.
- Student indicators- e.g. student caliber, success rate, employability (p.364)

She went on to point out, that "as numerical values, such indicators help to systematize whatv is complex and difficult to measure, but there is little doubt that as a tool they are liable to be simplistic. At best they tend to address a systematic and predominantly extrinsic set of values; at worst, they eencourage numbercrunching without due regard to the central issue of the objectives of education" (Pan, 1999, p. 224-225).

The meaning and applications of the term "quality teaching" occupies a significant position and place in governments' and education systems' agendas, due to its significances in the reform agenda of governments and the desire for governments to provide evaluative and measurable processes which would justify the proposed educational reforms. Consequently, it is important to adequately explain the meanings and applications for the term 'quality teaching'. It is important as it establishes the foundation for analysis and is significant for research about this distinguished term. It has been recognized that highly qualified teachers and school leaders are at the centre of improvement in teaching and learning and creation of a high quality educational system. The setting of high standards for what students need to know and be able to do when

they complete their education and the provision of an enhanced learning environment starts with teachers (Chapman, & Miric, 2009; Wiseman, & Al-Bakr, 2013; OECD, 2011, Riel, 1999; Henchey, 1999). According to an OECD Report "teachers form the core of the school system" and a wide range of research studies such as Skilbeck, and Connell (2004); Coolahan (2002); Gustafsson (2003); Hanushek (2002); Ramsey (2000) and Darling-Hammond and Youngs (2002) have confirmed the importance of teacher quality for student learning.

In order to determine if quality teachers and school leaders matter, one must first determine and agree on comparable indicators on what is meant by 'quality'. What is the definition of quality teaching and how do you prove quality? Kaplan and Owings (2001) define teacher quality and teaching quality as follows:

> quality teacher concerns the inputs that teachers bring to the school, including their demographics, aptitude, professional preparation, college majors, SAT and teacher examination scores, teacher licensure and certification, and prior professional work experiences. Teaching quality refers to what teachers do to promote student learning inside the classroom. Teaching quality includes creating a positive learning climate, selecting appropriate instructional goals and assessments, using the curriculum effectively, and employing varied instructional behaviours that help all students learn at higher levels (Kaplan & Owings, 2001, p.64).

According to the World Bank Report (1999a) and Lockheed, & Verspoor, (1991) quality of education- defined as learning achievement is directly related to the performance and achievement of students. Research on teacher quality has spanned a great range and has covered a vast scope in variables and positions. However, there is a magnitude of differences as each study uses its own definition and while some use statistical analyses, such as students' performance on standardized tests, others use summative analyses of teachers' preparation, performance on competency tests or levels of certification. It has been recognized that student learning is influenced by many factors, including students' skills, motivation, behaviour, family, learning environment, curriculum and the teachers' skills and knowledge. Conducting research on these factors is challenging at best (OECD, 2005; Vignoleas et al, 2000). The word "quality", as a noun, means "*an essential or distinctive characteristic or attribute". A*s an adjective it means "*of or having superior quality*" (OECD, 1989, p.27). According to an Organization for Economic Cooperation and Development Report (OECD, 1989, p.27-28), "quality" means something that is "*good*" or "*excellent*" and can refer to "*a trait or attribute*". As an extension of this definition, Downey, Frase and Peters (1994, p.8) define quality as

"meeting, exceeding, and delighting customers' needs and expectations with the recognition that these needs and desires will change over time".

Unfortunately, "teacher quality is a difficult construct to measure adequately and consistently, in the Gulf or elsewhere, because it is so hard to capture teacher quality in one single empirical measure" (Wiseman, & Al-Bakr, 2013, p.3). Pan (1999) cautioned against the excessive reliance on quantification, as is strict adherence to a rigid set of parameters (p. 225). She states that "Vigilance is vital as it is only to easy for the concept of quality to becme corrupted by politically correct representations". She further contends that, "there is danger of assuming a purely instrumental approach which would be reductive, and concerned only with accountability and the bottom lines" (p. 225) As a result researchers use one or more of four key components: (1) teacher education (Goldhaber & Hannaway, 2009); (2) teacher expertise (Danielson, 2011); (3) teacher pedagogy (James & Pollard, 2011); and (4) student performance on standardized tests (Mizell, 2010). They further suggest that in policy and practice worldwide, efforts to measure student achievement usually capture the outcome of teacher performance rather than teachers' actual activities and behaviours. The found that these policies and practices "rarely consider the preparation that teachers receive in pedagogy and subject matter or the pedagogical techniques they use in response to student needs" (Wiseman, & Al-Bakr, 2013, p.3).

The challenge faced by most policymakers is that quality also changes depending on the context, framework, environment, observers and interest groups and perceptions and expectations of a particular change process (OECD, 1989). The definition within an education context can also depend and be influenced by criteria of developed countries versus developing countries, global North-South versus North-North, and South-South perceptions and expectations (Ibrahim, 2010; Chapman, & Miric, 2009). For example, the importance of the term "quality" in the educational context, including its political significance, increases substantially, when it is given a normative interpretation. A dictionary will include such definitions of the word as *"degree of excellence"* or *"relative nature or kind or character"*. When quality means "degree of excellence", two aspects are encompassed: that of judgment of worth and that of position on an implied scale of good and bad.

To judge the quality of a school, for instance, as 'poor', mediocre', or 'excellent' means both applying, whether roughly or precisely, a certain notion or merit, and identifying, again more or

less approximately, where that school is positioned relative to other schools (Instance, 1989, p.28). There are some researchers that continue to argue that the definition of the term or concept is contentious and unclear and for others "quality appears to be relative, interpretive and contextually determined...it is a contested concept...which is both flexible and multidimensional, with its dynamic nature expressing itself in continuous innovation" (Vidovich et al., 2000, p.194). Crebbin (2004) contributes to the debate by focusing on the context of quality teaching by stating the following:

> In presenting a variety of potential meaning, I am arguing that any definition or practice is not free from the social, cultural, historic, and power contexts in which they have been formed...there is an increasing complexity in defining concepts like 'quality teaching' and 'quality learning' is not the same as saying that all definitions have equal authority to influence, or carry equal explanatory power, to shape teaching and learning (Crebbin, 2004, p.80).

As a measurable variable and an indicator, Hanushek (2002) provides what he terms a simple definition of teacher quality: "good teachers are ones who get large gains in student achievement for their classes; bad teachers are just the opposite" (Hanushek, 2002, p.3). He further describes good teachers as those who can get "an entire year's worth of additional learning out of their students". This he clarifies to mean that a good teacher will get a gain of one and a half grade-level equivalents, whereas a bad teacher will get a gain of only half a year for a single academic year. This variation in performance and potential differences in effect is why quality teachers matter. Researchers such as Carlson (1978) see teachers as the intermediary putting into practice the theoretical concepts. He sees a "professional who has as his or her major function the advocacy and introduction of innovations into practice" (Carlson 1965, p.4).

Teachers as change agents would have the ability to share in the teacher's 'practicality ethic' (Doyle & Ponde, 1978) and by demonstrating or coaching the new practice (Joyce, & Showers, 1991& 1982; Showers, 1984 & 1985). Similarly, Berman & McLaughlin (1978) found that effective strategies for implementation and continuation of innovation included concrete teacher-specific and extended training and classroom assistance and concluded that these were best provided by the teachers themselves. The World Bank Report (1999a) found while recognizing that there was limited data "that the quality of teaching and learning has suffered (in the Middle East) as teaching forces in most countries expanded to meet growing enrollments. While the number of secondary education teachers has doubled in school over a 10 year period, the percentage of teachers with university degrees fell from 85 to 77 percent"

(World Bank, 1996a). Likewise, expansion of teaching forces has been accompanied by falling average compensation levels (World Bank, 1996b). While teachers due to their proximity in the environment might be best poised to be change agents, the research shows that most live and work for the most part in a primarily negative environment and therefore may not be the best change agent, especially in regions, where they are seen as having low status and engaging in perverse practices such as private tutoring.

In the decades past the perceptions of teachers tended to be extremely negative. They were viewed by the community as lacking quality and teachers saw their profession as devalued and beleaguered (Fullan, 1991; Hargreaves, & Fink, 2001). While Hargreaves & Fink study was conducted in the United States the findings are consistent with the findings of similar studies in developing countries (Commonwealth Secretariat, 2013, 2008; OECD, 2011; OECD, 2008; UNESCO, 2010; GMR, 2012) and in the MENA region (Salehi-Isfahani, Hassine, & Assaad, 2012; Herrara, 2008; Ibrahim, 2010; ECSSR, 2008; ADEC, 2009; NSW, 2009). Fullan further explains that the demands being placed on teachers from the range "of educational goals and expectations for schools and the transfer of family and societal problems to the school, coupled with the ambivalence of youth about the value of education, present intolerable conditions for sustained educational development and satisfying work experiences" (Fullan, 1991, p.117). The information drawn from these studies are used to analyze the components of the QTM and its challenges in the Abu Dhabi context.

Analysis of the research indicates that while teachers have the most direct contact with students and are the most likely individuals to have impact on students' performance, nevertheless some argue that they are the most unlikely to have a positive impact because of their disposition and attitudes towards the job. Evidence produced by researchers such as Lortie (1975) found that teachers have an entrenched attitude and combined with their lack of training can impede their ability to influence effective change in the classroom. Lortie (1975) reviewed over 6,000 school teachers in various areas in the United Stated, and found:

1. teachers were not trained for the realities of the classroom
2. teachers did not engage in dialogue with their colleagues and spend most of their time apart from their colleagues
3. teachers worked in an environment that did not support a culture of sharing
4. teachers were more likely to seek help from their colleagues but not about teaching and learning but rather 'tricks of the trade'
5. effectiveness of teaching is gauged by informal, general observation of students (1975, p.229).

Lortie's study highlights the lack of appropriate training and analytical frameworks for dealing with principles of instruction, as well as the individualistic nature of the profession. Teachers with negative qualities are not likely to engage in dialogue with colleagues as this would only highlight their negative disposition, skills, and competency. With this perspective at play, it is very unlikely that reform of teaching and learning with be successful as most of the teachers would seek to defend their job and only feign implementing the reform. While Lortie's study took place in the United States and sometime age is still very relevant today and would found to exist in the UAE/Abu Dhabi situation. The findings of the ADEC, 2008, ECSSR, 2008 research found these same entrenched views and attitudes in the UAE education system. Similar findings were also found in the following research on teachers, Commonwealth Secretariat, 2013, 2008; OECD, 2011; OECD, 2008; UNESCO, 2010; GMR, 2012 and in the MENA region, Herrara, 2008; Ibrahim, 2010; ECSSR, 2008; ADEC, 2009; NSW, 2009.

Goodlad (1984), like Lortie, conducted an analysis of 1,350 teachers and their classrooms. Their findings supported those documented by Lortie's study. They found that teachers are virtually autonomous with respect to classroom decisions, while at the same time teachers have little influence or involvement in school-wide and other extra-classroom matters (Goodlad, 1984, p.123-124). Goodlad's analysis is that teachers function under autonomous isolation: "although teachers function independently, their autonomy seemed to be exercised in a context more of isolation than of rich professional dialogue" (Goodlad, 1984, p.186). He found that inside schools "teacher-to-teacher links for mutual assistance or collaborative school improvement were weak or non-existent" (Goodlad, 1984, p.187). Goodlad's conclusion is that for the most part school teachers share very little and have little or no contact with each other outside of school routines. He states, "there was little…to suggest active, ongoing exchanges of ideas and practices across schools, between groups of teachers, or between individuals even in the same schools" (Goodlad, 1984, p.187).

While these studies took place some time ago their findings are still relevant as studies such as Commonwealth Secretariat, 2013; ADEC, 2008, 2009; OECD, 2011; Chapman, & Miric, 2009; Salehi-Isfahani, Hassine, & Assaad, 2012 also found that in developing countries teachers are still working for the most part in isolation, that there is little to no collaboration or sharing of practices within or across schools. They also found that teachers have very little influence in practices or activities outside of their classroom (ECCSR, 2009; ADEC, 2009). The dialogue surrounding teacher quality and the quality of their teaching goes beyond their current role in

the classroom and the school as a learning community to the future of the profession. The concerns about the impact of teachers' negative views are not only limited to student performance but to the next generation of potential teachers. According to the OECD report *Teachers Matter*, teacher issues are high on the policy agenda because of the concerns expressed by teachers about their profession. "As teachers are in daily contact with the students who potentially form the next generation of teachers, the enthusiasm and morale of the current teacher workforce are importance influences on future teacher supply" (OECD, 2005, p.18).

In a previously similar study conducted by Rosenholtz (1989), who analyzed 78 schools in Tennessee, the majority of schools (65 of the 78) were 'stuck' or 'learning impoverished' for both teachers and students. Rosenholtz described these schools as "showing little or negative attention to school - wide goals, isolation among teachers, limited teacher learning on the job, teacher uncertainty about what and how to teach, and low commitment to the job and the school". These factors, she claimed, functioned in the school as a "vicious negative cycle to suppress teacher and student desire and achievement" (Rosenholtz, 1989, p.124). It is said that 'one of the virtues of teachers is that they get on with the job'. However, getting on with the job does not necessarily imply quality of teaching and learning resulting in improved student learning. Within the profession they often view themselves as beleaguered individuals and therefore not necessarily the best representatives of the profession. Given these mounting negative views, teachers would not meet the criteria or expectations of change agents. Furthermore, research current and past such as Rosenholtz, 1989; OECD, 2005; Commonwealth Secretariat, 2013, ADEC, 2008, 2009; OECD, 2011, Chapman, & Miric, 2009; OECD, 2008; UNESCO, 2010 illustrates that teachers do not necessarily possess the knowledge or the skills to facilitate transformational and sustainable change in an educational system that is seen as burdensome and where the teaching workforce feels indifference to how they are perceived and remunerated (Chapman, & Miric, 2009).

It would seem that under the conditions outlined by these studies, to encourage teachers to act as change agents would only intensify their problems and could potentially have negative impacts in the classrooms, especially on student achievement. Fullan on the other hand feels that teachers do possess the possibility and capability; however, they would need retraining, support and improvement to be effective. His view is that the induction of innovation could "provide a glimmer of hope…, and with support, stimulation, and pressure to improve" (Fullan, 1991, p.126). He does go on to say that while this is a possibility it will be a difficult task.

According to the research, good teachers have a substantial effect on student achievement, especially when assigned to work with disadvantaged students (The Center for Public Education, 2009). "Teacher quality more heavily influenced differences in student performance than did race, class, or school of the student" (Nye, Knostantopoulos, & Hedges, 2004, p.254). The research further found that achievement gains from having an effective teacher could be almost three times as large for disadvantaged students (Sanders & Rivers, 1996). They also found that the "effects of teacher quality accumulate over years" (Sanders & Rivers, 1996, p.334; Jordan, Mendro, & Weerasinghe, 1997).

Hanushek and Rivkin (2002) in their research on factors affecting teacher quality found that while quality teaching is one of many determinants of school quality, evidence strongly suggest that it is the most important factor. Rivkin, Hanushek and Kain (2005) also found that teacher quality had the most effect on student achievement and when all variables were controlled the quality of the teacher could dramatically affect student achievement. Their conclusion is also supported by Hanushek, Rivkin and Steven (2002) who conclude that "one standard deviation of teacher quality....increases the annual growth of student achievement by at least 0.11 standard deviations, and probably by substantially more" (Hanushek, Rivkin, & Steven, 2002, p.7). The benefits obtained from being taught by quality teachers are cumulative and therefore the longer students are with ineffective teachers the wider the achievement gap.

Their research findings are supported by the Center for Public Education (2009) and its research into teacher quality and student achievement. Their analysis corroborates the results of a growing body of research which shows that student achievement is more heavily influenced by teacher quality than any other single factor; and was found to be particularly strong among students from disadvantaged backgrounds. A study by Futernick (2005) on California's low performing schools suggests that schools hit a 'tipping point' when approximately 20 percent of the school teaching staff is comprised of under-qualified teachers. These are teachers who do not meet the state's minimum requirements. Beyond this point, schools begin to lose their ability to improve student achievement without a comprehensive strategy to restructure the entire school environment and factors influencing the underperformance of students and teachers. Johnston, Kahle and Fargo (2006) in their research on teacher effectiveness and student achievement in science found that effective teachers positively impacted student learning. Their study applies a general linear model to assess the change over a three year period in student scores on the Discovery Inquiry Test. The results

demonstrated that "effective teaching increases student achievement and closes achievement gaps for all students" (Johnston, Khale & Fargo, 2006, p.371).

The OECD Report, *Teachers Matter* (2005), provides data analysis from its member countries who participated in the Programme of International Students Assessment (PISA) 2000 survey. These results indicated that in half of the OECD countries the majority of 15 years old students attended schools where principals are concerned that student learning is being affected by teacher inadequacy. The report demonstrated this concern of teacher inadequacy in the results of a 2001 survey of upper secondary education in 15 countries in which 15 percent of full-time teachers and 30 percent of part-time teachers were not considered fully qualified (OECD, 2005, p.29). The OECD in a study of the PISA 2000 results in reading literacy among 15 year olds found that OECD countries as a whole reported only "10% of students were capable of performing highly sophisticated reading tasks.....on the other hand 18% of students performed at a literacy level 1 or below" (OECD, 2005, p.24). These results were attributed to a range of factors including the skills of teachers. The report did caution generalizing about the factors as much of the research is from the United States and the factors affecting other countries can be quite different. The World Bank Report (1999a) also found that while primary and secondary student-to-teacher ratios are not high and in fact are better than most countries, across the Middle East and North Africa, students' performance continues to be slow.

In addition to analyzing the results of student performance on standardized test scores such as PISA, researchers have been analyzing the effects of teachers on student learning (OECD, 2005; OECD, 2008; World Bank, 1999; Center for Public Education, 2009; Chapman, & Miric, 2009; Salehi-Isfahani, Hassine, & Assaad, 2012; Wiseman, & Al-Bakr, 2013) by measuring the value-added component. 'Value-added' is a measure of change, or effect, brought about by a certain action; in the case of determining teacher quality it is the advancement of students. Using the value-added model, researchers can statistically assess the effectiveness of a teacher through the change in students' test scores according to the teacher to whom they are assigned. "A highly effective teacher, therefore, is one whose students show the most gains from one year to the next" (Center for Public Education, 2009, p.2). Using a value-added model approach helps the researchers to filter out all other factors related to student performance. Not to diminish the relevance and importance of this statistical analysis, but it does beg the question as to whether this is all a little clinical and sterile in nature since people are anything but these and

they do not live in a detached or isolated environment. It is difficult to see how one can truly filter out fully the effects of other factors on students' performance.

Researchers such as Kupermintz, Shepard and Linn (2001) however question the validity of the value-added assessment system in adequately measuring teacher effectiveness. Specifically, their research questions the validity of measures of teacher effectiveness from the Tennessee Value Added Assessment System (TVAAS). The TVAAS is a state accountability system implemented to evaluate the influence that school systems, schools and individuals teachers have on student learning. According to the researchers the claims made regarding teacher effects are not valid and do not hold-up under scrutiny. For example; the state's analysis claims that the TVAAS can:

- adequately capture teachers' unique contributions to student learning
- reflect adequate standards of excellence for comparing teachers
- provide useful diagnostic information to guide instructional practice
- student test scores adequately capture desired outcome of teaching
  (Kupermintz, Shepard & Linn, 2001, p.2).

The researchers determined that the statistical methodology is not able to separate teachers' unique contribution to student learning as student learning and development of academic proficiency is a highly complex process that is influenced by a multitude of factors. These factors all interact jointly to produce measurable growth in student academic skills and knowledge. They argued that this complexity and the dynamic and interactive nature of the learning process cannot be isolated to a simple explanation, and therefore cannot be directly linked to teachers' effectiveness and cannot be isolated as a unique identifier with direct effects on student achievement and growth. They further argue that because of structural and functional features of the US education system, learning environments presents themselves as a mixture of complex symptoms rather than as additive clusters of independently accrued conditions (Kupermintz, Shepard & Linn, 2001, p.6). Due to these pre-existing features the "TVAAS instrument is not able to adequately account for the potent influences (thereby allowing the isolation of teacher direct effects) on learning, by employing the experimental design principle of 'blocking' using each student's prior achievement as the only control or "proxy" for all such influences" (Kupermintz, Shepard & Linn, 2001, p.6).

Their argument is that due to a range of variables that can potentially influence student achievement, such as family, peers, school environment, curriculum, socio-economic status,

ethnicity and language, then it is not possible to apply the required level of total control which would be needed to ensure adequate blocking for an independent isolation of one factor resulting in measurable effects. The research further demonstrated that to define teacher effectiveness in terms of student gains on standardized tests is in fact defining and assessing the wrong thing. TVAAS is an outcome based assessment system and therefore measures outcomes rather than by the processes by which the outcomes are achieved. In contrast to the perspective of Sanders and Horn (1995) are those who advocate for a non-prescriptive approach and find it advantageous for the assessment process as it does not define the best practices to be applied but leaves it up to educators to apply the methods they determined are most practical to achieve the outcomes (conceived as student academic progress). Kupermintz, Shepard and Linn (2001, p.14) point out that by not defining concepts such as the 'perfect teacher', or the 'best way to teach' the TVAAS has made an assumption that effective teaching, whatever form it assumes, will lead to student gains.

Sanders and Horn's (1995) perspective is contrary to works of notable researchers such as Darling-Hammond (2000) and Wenglinsky (2000) who have been working on identifying the prominent characteristics of quality teaching and best practices that improve student outcomes. Wenglinsky's perspective is that classroom practices are important and teachers' characteristics contribute to their actions in the classroom and therefore to their effectiveness. Wenglinsky's research demonstrates that what happens in the classroom is critical to the performance of students and that how a teacher teaches is vitally important to the level of learning outcomes (Wenglinsky cited in Markley, 2004, p.2). Both of these authors are advocating for a set of standardized norms and verifiable characteristics of teachers and in so doing these characteristics can be developed, refined and enhanced to affect effective and quality teaching.

Based on the arguments and the results analysis, attempts to measure quality teaching and teacher effectiveness and their effects on student achievement clearly have merits. The problem lies in first the definition employed and the approach employed to validate the factors and indicators that influence school achievements. The application of an outcome based assessment system that measures student gains over a period of time and the value-added influence of an effective teacher on student progress can reveal improvement; even though the statistical analysis instruments might be affected by some validity issues. The application of standards-driven and input-based competencies and attributes by identifying these prominent characteristics and their relationship to the effectiveness of teaching is also an attempt to define

excellence. The difference is which approach is grounded is the most appropriate definition and, given the complexity of the school environment, the students, and their living environment, which can most effectively monitor and thereby influence student achievement and is a sustainable and accurate instrument for assessing teacher quality.

The danger of a strictly output based assessment system is that it forces teachers to teach only certain components of the subject content as they relate to the test. Consequently, the tests become the important factor in the process of teaching rather than the student. With standardized tests being the measure of student progress and teacher effectiveness; then the tests become high stakes and teachers become the pawn between the state's desire for accountability and the individual's wish for professional achievement. The same argument can be made about the use of limited characteristics to define an effective teacher and the sole application of a professional standards based method for assessing effectiveness. There are critics who point to the fact that not all teachers who meet the standards and have all the qualities, are effective and exhibit excellence in all areas of teaching and learning. In addition, some critics feel that while these qualities are important their level of effectiveness on student achievement and teaching quality is difficult to assess as the methods of assessment are usually summative, and at times subjective and therefore not reliable.

Research conducted by Darling-Hammond (1996); Goldhaber and Brewer (1996); Greenwald, Hedges and Laine (1996); and Felter (1999), found that teachers with four characteristics, or dimensions, of teacher quality consistently generated higher student achievement. These dimensions were content knowledge, experience, training and certification, and general cognitive skills. According to Darling- Hammond (1996), teachers with a background in the subject matter being taught makes a difference to how well students perform. "The presence of a teacher who does not have at least a minor in the subject matter that he or she teaches accounts for around 20 percent of the variation in NAEP scores" (Darling-Hammond, 1999, p.4). Greenwald, Hedges and Laine (1996) in their study found that more years of teaching experience consistently translated into higher student test score. Fetler (2001) conversely found that the presence of new teachers in a school was one of the strongest predictors of higher dropout rates.

The question is, is an effective teacher the same as a quality teacher and is a qualified teacher the same as a quality teacher? This question might sound like a matter of semantics, however it

could be argued that an effective teacher in a high-stakes test environment is merely one who prepares the students well for tests. A quality teacher on the other hand might be considered one that is highly qualified, motivated to teach students and has considerable academic and social development and is involved in enhancing the teaching profession. Is there a difference between the two descriptors, and when researchers analyze competency and effectiveness which one of these descriptors are they using and does it matter? The question is being posed as many research studies talk about the criteria for assessing effective teachers and then list criteria for quality teachers.

According to Sakarneh (2007), quality teaching has to be measured and defined on the basis of the quality of the learning because an assessment of teaching quality cannot be made unless there is a 'product' in the form of 'quality learning'. For example, 'quality teaching could be understood as teaching that produces learning, which implies more of a task of teaching, but any assertion that such teaching is *quality* teaching depends on students learning what the teacher is teaching' (Fenstermacher & Richardson, 2005, p.189). Therefore, quality teaching must be determined by the context if the worthiness of teaching activities is to be judged as "good teaching" and if the outcomes of these activities can be described as "successful teaching" (Fenstermacher & Richardson, 2005, p.186). In other words, "when teaching in the task sense is done well, we call it good teaching. When teaching results in learning, we call it successful teaching... when teaching is both successful and good, we can speak of quality teaching" (Fenstermacher & Richardson, 2005, p.192).

Markley (2004) reviews the research focuses on the extensiveness of the definitions of an effective teacher, while Clark (1993, p.10) defines an effective teacher as "someone who can increase student knowledge, but goes beyond this". Vogt (1984) relates effective teaching to the teacher's ability to apply differentiated learning methods to different students of different abilities while incorporating instructional objectives and assessing the effective learning mode of the students. Collins' (1993) perspective is that to be effective teachers must exhibit certain criteria. He established five criteria for an effective teacher: "committed to students and learning; knowledge of the subject matter; responsible for managing students; think systematically about own practice; and being a member of the learning community" (Collins as cited in Clark, 1993, p.6). Other researchers such as Swank, Taylor, Bady and Frieberg (1989) and Million (1987) focused on the teacher's actions and practices in the delivery of the lesson and level of inquiry. Still others such as Papanastasiou (1999) are not convinced that any one

set of attributes or characteristics could adequately define an effective teacher. For Wenglinsky (2000), classroom practices that were most critical for the achievement of students were practices that promote higher order thinking and active participation.

The problem with these definitions, and like the others, is how to measure their validity and how to translate observable knowledge into measurable evaluative methods.   It has been recognized and acknowledged that the quality of teaching and the knowledge, skills, values and practices of teachers are factors that affect student outcomes and achievement.   However, concrete and valid data that support the assumptions have been limited.   Research tended to focus primarily on students' achievement and especially if they were perceived to be failing. What was needed is, and more recent research indicates, other kinds of data that would allow a more in-depth analysis and understanding of the over-all contributing factors. Research conducted by Nye, Konstantopolous and Hedges (2004), Rivkin, Hanushekand Kain (2002) and Sanders and Rivers (1998) validate the importance of collecting data on teachers and what they might reveal about key teacher-related factors that contribute to student successes or difficulties.

According to Mullen and Farinas (2003), there are problems with, and confusion surrounding, the definition and the assumptions used in the literature and in policy documents of terms such as '*quality*' which is often used interchangeably with '*qualification*'. According to them, qualification underscores teacher preparation, certification, and credentialing, but 'teacher qualification' does not automatically substitute for 'quality teaching'. Simply put, a qualified teacher is not necessarily a quality teacher.   While one can acknowledge the principle of the argument, it is difficult to recognize a significant relationship between an unqualified teacher and quality teaching.   While articles such as this ask that a distinction be drawn between the two concepts it is a difficult process as both input (qualification) and output (quality teaching) are important for student achievement and success in the classroom.   What is needed are mechanisms to determine the value of the input and the level of impact the input will have on students' achievement (output) (Chapman, & Miric, 2009).

It is this quantifiable and measureable set of variables that research is trying to harness and predetermine their intensity and level of impact. This recognition and the estimation of the impact that unqualified teachers and lack of quality teaching has on student achievement in the core subjects has highlighted the need for competency confirmation, professional standards,

and processes and mechanisms for the on-going verification and certification of teachers. The research has indicated that students' learning outcomes are directly related to quality teachers and quality teaching. "Teacher quality has a greater role in explaining student achievement than many of the factors associated with either the teaching environment such as classroom resources, curriculum guidelines, and assessment practices, or broader school environment such as school culture and organization" (National Framework for Standards for Teaching, 2005; Darling-Hammond, 1999, p.34). There are key strategies for achieving teacher quality:

- Excellent preparation programs that focuses on demanding subject-area mastery during pre-service preparation.
- Assessment of teachers' capacity to "engage" with children.
- Provision of multiple pathways for competent individuals to achieve qualification and certification.
- Establishment of professional standards of teaching practice.
- Ensuring that all professional development activities contribute to the individual's professional ladder and classification.
- Implementation of teacher registration/certification process.
- System for monitoring teacher performance against standards.
- Rewards/recognition system for high achievers.

There are many other definitions being used by a variety of organization and policy makers. One of the most known and acknowledged is the one by the OECD who have defined teachers of quality as those who have the following characteristics:

- Knowledge of substantive curriculum and content.
- Pedagogic skills, including the acquisition and ability to use a repertoire of teaching strategies.
- Reflection and the ability to be self-critical, the hallmark of teacher professionalism.
- Empathy and the commitment to the acknowledgement of the dignity of others.
- Managerial competence, as teachers assume a range of managerial responsibilities within and outside the classroom (OECD, 1994, p.13-14).

The research has identified that there are distinct characteristics of an effective teacher. They found that the following teacher qualities are related to higher student achievement:

- *Content knowledge*: effective teachers have a solid background in the subject are they teach as measured by a college major or minor in the field.
- *Teaching experience*: teaching experience of 5 years or more typically produces higher student results.
- *Teacher training and credentials*: studies show that certified teachers are more effective that uncertified, particularly in mathematics.
- *Over all academic ability*: teachers with stronger academic skills perform better.

Most of the research supports three of the four characteristics with empirical evidence that teachers make a substantial difference to student achievement (Wiseman, & Al-Bakr, 2013; OECD, 2005; OECD, 2008; World Bank, 1999; Center for Public Education, 2009; Chapman, & Miric, 2009). There is some disagreement about the effectiveness of certification of teachers and their correlation with the achievement of students, such as the rationale for Teach for America teachers who are hired with alternate or incomplete certification (Center for Public Education, 2005). Analysis of teacher certification and student achievement in Gulf Cooperation Council (GCC) countries found that there was no direct nor a consistent association between teacher certification and students achievement (Wiseman, & Al-Bakr, 2013), and others only found a partial relationship (Chapman, & Miric, 2009; Salehi-Isfahani, Hassine, & Assaad, 2012).

4.7   Comparative Education-Learning from others

Educational transfer has received considerable attention in the comparative education studies, especially over the last decade. However, comparative studies between Arab and other states are relatively limited and those commissioned by government entities are often not made available in the public domain. This practice has affected the level or extent of educational research on the Arab states educational systems or the factors affecting their students or teaching workforce and guarded itself from major theoretical breakthroughs as researchers are having to draw suppositions based on studies undertaken elsewhere (Mazawi, 1999, p.352). In addition, most of the latest studies (Wiseman, Al-bakr, 2013; Aydarova, 2012; Brewer et al., 2007; Barber, Mourshed, and Whelan, 2007; Bouhlila, 2011) have focused primarily on students' performance and their comparative performance on international standardized tests such as Trends in International Mathematics and Science Study (TIMSS), specifically the participation of Gulf countries in the 2007 TIMSS which had highlighted the low performance of students in the Gulf countries compared to the international mean (Wiseman & Al-bakr, 2013; Bouhlila, 2011).

Arnove (2002) in his presidential address to the Comparative and International Education Society (CIEC) on "Facing the Twenty-First Century: Challenges and Contributions" reminds individuals in the field that there are major challenges which relates to our "knowledge base, our approaches to the study of education and society, and what we do with that knowledge" (Arnove, 2002, p.477). His key point, is the acknowledgement that one size does not fit all, and that what is workable in certain countries might not be workable in others be they

developed or developing. In the areas of education reform relating to quality teaching and learning, student achievement, teachers and schools he cautioned about the generalizability of studies data, concepts and conclusions, since general assumptions could overlook issues of regionality, cultural and socio-economic relevance.

Research in comparative education such as (Bereday, 1964; Sadler, 1979; Phillips, 2000; Steiner-Khamsi, & Quist, 2000; Schriewer, 1990; Arnove, 1980; Phillips, & Ochs, 2004; Perry, & Tor, 2009; Crossley, 2012; Crossley, 2010; Ibrahim, 2010); discuss the issues or the practical or ameliorative dimension of borrowing. These studies explore the pros and cons of transferring educational practices, models and systems from one context to another. Authors such as Sadler (1979) and Perry and Tor (2009) promote the benefit of studying other societies' education systems because of the value of learning from others things that can contribute to the improvement of policies and practices within one's own country (Anove, 2002). Perry and Tor (2009) advocate the conceptualization of educational transfer as involving an underlying learning process for the actors involved, especially the receivers. Others such as Phillips (2000) emphasize how comparative data can be revealing and informative in many ways such as:

- Demonstrate possible alternatives to policy "at home";
- Provide insights into processes of policy formulation;
- Clarify means of successful implementation used elsewhere; and
- Serve to warn against adopting certain measures
  (Phillips, 2000, p.11-12).

While others on the other hand, (Altbach, 1998; Steiner-Khamsi, & Quist, 2000; Crossley, 2010, 2012; Ibrahim, 2012) caution about the dangers of an educational "borrowing" and "lending" culture and its potential impact on the importing country. They warned that adopting external policies and practices often from desirable developed countries and education systems does not necessarily mean a benefit for the importing country or an improvement of their educational system. Researchers such as Steiner-Khamsi, 2006; Steiner-Khamsi, 2004; Steiner-Khamsi, & Quist, 2000; Rui, 2007; Schriewer, 1992; Ibrahim, 2012; Perry, & Tor, 2009, further caution about the coercive character of what it termed 'negotiated educational transfer', especially when the negotiations involve international organizations or a powerful/richer country and a less powerful/poorer country, as this is sometimes masked by the adoption of apolitical, technical, and neutral terms such as "knowledge sharing", "best practices", and "bench-marking" (Ibrahim, 2010, p.501).

There are many cases that evidence the negative impact of barrowing and imported models and/or practices and there lasting influence on the local receiving systems. In the case of the Middle East, Ibrahim (2010) highlights that case of Egypt and the influence and impact of international transfers on education policies and practices. His analysis found that for over two centuries western modern education has informed the policies and practices of Egyptian education policymakers. He identified two key focus of international educational transfer, the first is the attempt to spread modern public education along western lines; and the second, is the way in which local adaptation of transferred foreign examples are adjusted and aligned to the local context (Ibrahim, 2010, p.500).

His analysis of the current situation within the Egyptian education system reveals that historical foreign transfers have left the system with major shortcomings such as "traditional methods of teaching and learning, rigid centralization, high-stakes exams, and a widespread desire for modern education as a way to obtain employment" (Ibrahim, 2010, p.500). His findings found that while the donor community was attempting to respond to the shortcomings within the system, it was also influencing the policymakers and political policies through the dissemination of global discourses and best practices and infusing them into the system (Ibrahim, 2010). The key findings are that while government institution i.e. Ministry of Education was supporting the discourse and best practices other institutions at the provincial and local levels were not in favour of the initiatives that were being promoted by the donor community. At the local levels the initiatives were viewed as imposed by outsiders and were seen as intruding into their traditional ways and practices, which for the most part were resisted. According to Ibrahim (2010) "Reforms involving active learning pedagogies, decentralization, and use of technology met little, if any, success because they have collided with the huge machinery and the deep-rooted characteristics of the system" (Ibrahim, 2010, p.500). He found that while the international community has been stressing reform and improvement of basic education this has been contested and resisted by the society because of the expected outcomes of these reforms. "Curricular and basic education reforms have been highly contested and resisted by various interested groups" (Ibrahim, 2010, p.500).

In the case of Ghana, the literature highlights the transplant of outdated curriculum from the United States to Ghana and its desultory impact on the culture and the education system in general (Arnove, 2001). Similarly, the United States, in attempting to advance its education system and reflect more the achievement of students in Asian societies, has adopted an agenda

promoting back-to-basics, rigorous national standards and high stakes examinations. The interesting part of the researchers' analyses is that, while many groups in the United States are trying to emulate elements of Asian systems in terms of students' performance, these same Asian countries in turn are attempting to be more like the previous American system by eliminating excessive emphasis on national high stakes examinations (Noah, 1990 in Arnove, 2001, p.486).

Singapore is often seen as an example of success, and a system that should be emulated. There are some fundamental features within the Singaporean system that would be very difficult to imitate.

- There is a strong national framework with clear directions and directives- schools are well managed and teachers are well qualified (most have advance degrees in education).
- National curriculum- with structured programs and syllabi makes possible global assessment and the setting and maintaining of standards. The curriculum is also intensive, particularly in primary school years.
- Teaching methods- streaming of students is a key feature as appose to mainstreaming. Pupils are streamed in year 4, 6, 8, 10 and 12 of primary and secondary schooling.
- The system relies heavily on pupils' use of tutors and coaches to progress through the system.
- Assessment-pupils sit for a series of national and international examinations. Such benchmarking establishes readily recognizable standards that are used for progress within the schools and throughout the system. Testing at school level is frequent to check for the mastery at numerous stages and to enable prompt remedial action.
- Expectations- schooling is highly demanding. Rigorous assessment, streaming of pupils with little provision for 'second chances', ranking of schools based on examination performance and fierce struggles for places in academically outstanding schools, very competitive learning environment, very disciplined, mental robustness and high-tension capability in the students, and quality in the educational institutions (p. 229-231).

An evaluation of the Singaporean system reveals that while Singaporean students are performing well nationally and internationally, and the education system is generally well regarded, there are some prevailing limitations. One of the effects of the exacting education regime is that it creates tremendous stress on the pupils and their family which has madde schooling a burden (Pan, 1999, p. 233). Research has found that even high-ability students find it "a trial being subjected to relentless sequence of drills and tests, and has lost interest in learning when not driven by the system and examiniation. The study found that learning has become largely learning for certification, and learners tend to be passive and authority-dependent, with low tolerance for risk, discovery learning and independent and original thinking. They are also onclined to be selective in what they learn, and to engage in surface-

level processing to meet the immediate need of passing examinations" (p. 233). She argues that there is danger within the system of confusing education with learning. She concludes "that there is further increasing concern that while the system has nurtured hard-working and disciplined students capable of attaining brilliant grades, it has also led to examination-driven drudgery and stifling of creativity and independent thinking" (p. 233).

These examples are reflective of the concerns highlighted by the researchers discuss above and is evidence that while educational transfers and the envisioned reforms (policies and/or practices) maybe viewed as being desirable, and find support by the international community or donor organizations, they do not necessarily result in positive impact on the receiving systems. These findings indicate that often the proposed reforms can be met with resistance and may achieve little, if any, success. In the case of Egypt according to Ibrahim (2010) the educational transfers were "introduced into a system with characteristics that are historically ingrained and resistant to change, and into a contested context of competing interest groups and a climate of mistrust. The result is a disorientated education system full of problems" (Ibrahim, 2010, p. 499).

In the case of the GCC countries Bindon and Lane (2011) highlights some of the issues and challenges that surround educational transfers. Their research and analysis found that following: "recent massive educational reconfigurations have resulted in new pedagogies at the primary, secondary, and tertiary levels; new educational pathways for both nationals and expatriates; new partnerships with foreign educational institutions; and new challenges to the preservation of indigenous education. A challenge in understanding the current educational reality in the GCC is the diversity of reform models. For example, a key factor underlying the rapidity of the current educational reform efforts is the increasing reliance on foreign educators and educational institutions to help recreate educational systems" (p. 3).

They further states that in countries like Bahrain, Qatar, and the United Arab Emirates, much of the expansion of their educational systems has been through the founding of international branch campuses of foreign universities, such as Ireland's Royal College of Surgeons in Bahrain and Texas A&M University in Qatar; similarly in the K-12 sector, many GCC nations have contracted with or allowed entry to foreign education providers to replicate primary and secondary level programs and practices in their systems. They further caution about the impact and implications that such importations can have on the local populations. "The reliance on the

experience and intellectual resources of foreign education providers leads to questions of whether the reforms are innovative in reality as well as rhetoric, and whether they are oriented towards the effective development of indigenous human capital and therefore the future success of the economic and social structures of the GCC or simply rooted in past experiences of other nations" (Bindon and Lane, 2011, p. 3).

The research literature on international educational transfers are consistent on the discussions of importance of relevance and the significance of context, and specifically the need for caution in the adaption and implementation of educational transfers (Steiner-Khamsi, 2006; Steiner-Khamsi, 2004; Schriewer, 1992; Ibrahim, 2012; Crossley, 2010, 2012) as the implications on national and local government policies and practices can have severe and irrevocable effects across the broader educational system. The research also highlighted the importance of recognizing the dual aspects of international educational transfers: those promoted by international donor organizations which can have undertones of social and system ideologies that can adversely affect cultural and local beliefs, and those with political ideologies which can be manipulated for socio-political gains.

The points the researchers make are that the borrowing of policies and practices on a conceptual level can be seen and used as positive means of improving or reforming certain aspects of educational systems by the recipient countries, however they also found that some governments engage in the practice of borrowing as a means of power influence. In this case educational transfer can be used as a political instrument which impose certain policies that can benefit certain groups and suppress the interests of others under the disguise of 'knowledge sharing', 'best practices' and/or 'bench-marking'. These various reasons must be considered when determining if educational transfer is appropriate or relevant.

Steiner-Khamsi, (2004) and Schriewer, (1992) make the point that there are times when the motive(s) behind the transfers is unclear as governments can sometimes use external sources to justify the continuation of policies and practices that are contested under the guise of best practice or to legitimize particular reforms. In this case they argue that 'borrowing' does not necessarily occur only because reforms from elsewhere are better, but because "the very act of borrowing has a salutary effect on domestic policy conflict" (Steiner-Khamsi, 2006, p. 671 cited in Ibrahim, 2010). Steiner-Khamsi, (2004) further argues that ironically "the international argument loses weight" when borrowed policies and practices "begins to take hold and become

national policies, but confront cultural beliefs, practices, and local understanding (Steiner-Khamsi, 2004, p.112 cited in Ibrahim, 2010).

In the case of the Gulf Cooperation Council (GCC) region, Pollock's (2007) research found that the push towards imported models was due to the region's need for diversification and the lack of relevant skills within the local populations. "As the countries of the Gulf Cooperation Council (GCC) begin to diversify their economies to relinquish dependency on oil revenues, industry in the region is demanding increasingly skilled labor to meet human resource needs. However, there is a dearth of qualified local talent, so much of the regional workforce continues to be imported from abroad. This picture is beginning to change as labor ministries have begun to stress the importance of nationalizing their local work forces by enhancing the quality of local educational opportunities. Rather than build from the ground up, a model of importing high-quality tertiary providers is emerging" (Pollock, 2007, p.1).

Over the last decade the GCC has been very active in implementing borrowed models and practices in an attempt to reform their education systems. One example of this total engagement of educational transfer is the Qatar-RAND relationship. The Qatar-RAND partnership focused on reforming the K-12 Education system in the GCC-through the use and implementation of policies and practices being promoted by the RAND Corporation, 'a policy research and analysis organization based in Santa Monica, California'.

In this example, the Qatar Foundation engaged the RAND Corporation to take control and lead the reform of their education system. This was done through the creation of the RAND-Qatar Policy Institute which was tasked with helping to improve educational policy and to implement Qatar's education system reforms from kindergarten onwards, in association with regional scholars and institutions (Zellman, Constant & Goldman, 2011; Pollock, 2007). According to a RAND Corporation report (April 2011), the organization was able to implement all reforms in just three years. In the three years the State of Qatar begun, "far-reaching redesign of its K-12 education system, incorporating school autonomy, variety in curriculum, parental choice and accountability measures" (Zellman, Constant & Goldman, 2011). The first phase of the K-12 reform project was undertaken between 2001 -2004, which saw the opening of a series of independent schools and a decrease in government public schools. These reforms were hailed as visionary and systematic at a conference on education reform in the Arab world. (Zellman, Constant, & Goldman, 2011; Pollock, 2007).

These visionary educational reforms were praised as innovative and an example of successful educational transfer, "in Qatar, the change from 2001, when the Ministry of Education operated 200 single-sex schools catering to 70,000 students, to 2002, when the system was standardized to international models, with new independent schools separated from the ministry, is remarkable" (Zellman, Constant & Goldman, 2011, p.33). The reform model was hailed as successful because it involved the establishment of independent school similar to Charter Schools[4] and the creation of three new government institutions: The Supreme Education Council responsible for setting national education policy; the Education Institute which oversees new independent schools and allocates resources to them, in addition to developing national curriculum standards in Arabic, mathematics, science and English, and developing a teacher-training program; the Evaluation Institute monitors student and school performances in both the Ministry and independent schools. Over-all the project influenced the opening of 12 independent schools in 2004, and an additional 21 independent schools in 2005. By 2011 there were about 46 independent schools in the State (Zellman, Constant & Goldman, 2011, p.33).

On the surface it would appear by the criteria set out by the RAND Corporation that this type of educational reform was a success and as stated by the organization "The Qatar Foundation is spearheading far-reaching, broad-based education reforms that are being undertaken in a spirit of international cooperation". The organization's own promotion material states "considering the current geopolitical climate and the tensions that exist between East and West, this nation of less than 1 million people might be held up as a model for regional reform. A model that is based on international collaboration, the sharing of ideas and the indirect promotion of western ideals and influence through what Harvard Professor Joseph Nye might term 'soft power.'" This type of educational reform strategy could be questioned as to it overall goal and relevance, and what are the real implications and outcomes of this type of educational borrowing? What and whose purpose and principles were being applied, and whether the intent was not directly or indirectly related to power and influence over this strategically located regional (country's) educational system.

The RAND organization purports that this was "an initiative that was promulgated by the East and embraced by the West. The organic development of this project, therefore, may serve not

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[4] A charter school is an alternative education system where a school receives public funding but operates privately. www.Uscharterschools.org.

only as a model for reform among Middle-Eastern leaders, but also for those in the West impatient to see social and political reform in the Middle East"(Zellman, Constant & Goldman, 2011, p.33). A subsequent review of the project however, found that while the reforms were accepted at the political level, they were not at the local and school level. Consequently, by late 2011 the country reverted back to government owned operation and running of the schools. The findings of the review also resulted in changes to the approach and strategies of of conducting educational reform in the country. The government ultimately released many of the private owners of the schools and instituted local Qataris back into running the schools. They also seek support from Australia to further develop and implement teachers and school leaders' professional standards (Queensland MOE, 2009), and the monitoring and review of the RAND programmes in the schools. Finally, it could also be argued that this type of educational reform which promotes independent/private schools was counter-productive to the underlying principles of both the MDGs and Education for All goals which promote access and equity to public education. The promotion of this type of education would limit access and increase marginalization based social-economical factors.

4.8   Summary

The key points and emphases being made by the researchers are that while adopting policies and practices from other countries can be beneficial, they can also be detrimental to the internal system if not carefully assessed and aligned to the existing structure, capabilities and local context. The researchers highlight the fact that the borrowing of policies and practices on a conceptual level can be a positive means of improving or reforming aspects of educational systems by the recipient countries, however they can also negatively impact the recipient systems if the policies and practice of and not thoroughly analyzed and all factors evaluated and validated against the specifics of the country. They went on to the highlight that if this extensive analysis is not done and the significance of context is not recognized then the process of borrowing will only result in what Ibrahim terms as "disoriented education system full of problems" (Ibrahim, 2010, p. 499) that could take years to correct.

Richardson further contends that we need to be cautious when dealing with cultural differences and the transferability of the model because the current roots of the model are western, liberal, individualist (Eurocentric) and developed within a privileged structure, and while generally accepted in the United States and Australia might not be as relevant in societies where community maintenance and development is more important than individualistic development.

Her conclusion is "that the most serious problem with the use of the constructivist pedagogy construct occurs when it becomes valued as best practice for everyone" (Richardson, 2003, p. 1633). This is an important factor that will be analyzed in pending chapters when determining the applicability of the model to the Abu Dhabi context.

Cole and Chan (1994, p.3) define quality teaching as "the actions of professionally trained people that enhance the cognitive, personal, social and physical development of students". However, to simplify things, in this research, while different terms may be used, all these terms are clustered around one meaning, which is an examination of quality teaching in its context. In this instance, it is the context of quality teaching as it applies to education in the United Arab Emirates (U.A.E), specifically Abu Dhabi, and the attempt to address the underperformance of its students, specifically boys, and the apparent lack of quality amongst it teaching workforce. A most effective way of increasing the academic achievement of students in Abu Dhabi is to ensure that key education improvement strategies are implemented that would promote the recognition of knowledge, skills and competencies for teachers and school leaders, development of professional standards, and facilitates the training and qualification of unqualified teachers through a continuous professional development framework.

As stated by Pan (1999), "in a world that is becoming increasingly boarderless, countries have much more in common and can learn much from each other. From diverse sources, each can glean what is most suited to its needs in order to attain its own best definition of quality" (p. 241). The final analysis is that while it is important to share and exchange knowledge, these sharing and exchanges are best analyzed within the social, cultural and political context of the receiving country. It is this type of analysis that will define the kind of education that can help the country realize its progressive vision and national development.

Chapter 5: ANALYSIS OF THE NSW MODEL OF QUALITY TEACHING

5.   Introduction

This chapter will review and analyze the New South Wales (NSW) model of quality teaching, the components of the model and critical factors that affect student achievement, school leaders, quality teaching and enhanced learning environment. It will also specifically examine the extent to which the NSW Quality Teaching Model (QTM) is applicable to the Abu Dhabi education system and the Emirate's goal of achieving a world class standard of education. The NSW QTM and its applicability within the Abu Dhabi context is explored and examined as it is an elaborate model for assessing quality teaching. It is a model designed and structured around best-practices, improvement of teaching, and highlights both an approach to teaching and a theory of learning. The theoretical foundation of the model is a constructivist approach to education and provides strategies for teachers to develop mechanisms for effective teaching while keeping the development of students as its focal point.

The NSW Quality Teaching (QT) model consists of three dimensions of teaching and learning, and is comprised of eighteen observable elements that delineate the learning that takes place within the classroom and the assessment tasks undertaken by students. The components of the model are interconnected as a means of strengthening the whole, so while each dimension functions on its own it is best supported by the other dimensions. The three dimensions of pedagogy linked to improved student outcomes that are identified in the research, and is the architecture of the NSW model are:

- Pedagogy that is fundamentally based on promoting high levels of **intellectual quality.**
- Pedagogy that is soundly based on promoting a **quality learning environment.**
- Pedagogy that develops and makes explicit to students the **significance** of their work (NSW Department of Education and Training, 2003).

5.1   Quality Teaching Model (QTM)

The model is illustrated as a design of two quadrants (quality learning environment and significance) interlinked with a central core (intellectual quality) that strengthen and anchors both the structural design and the theoretical foundation of the model. The dimensions are

sub-divided into elements that delineate the various factors and aspects that need to take place to obtain the required outcomes of quality teaching and improved student performance.

	Intellectual Quality	Quality learning Environment	Significance
Elements	Deep knowledge	Explicit quality criteria	Background knowledge
	Deep understanding	Engagement	Cultural knowledge
	Problematic knowledge	High expectations	Knowledge integration
	High-order thinking	Social support	Inclusivity
	Metalanguage	Students' self-regulation	Connectedness
	Substantive communication	Student direction	Narrative

Elements of NSW QTM dimensions

Analysis of the NSW Quality Teaching Model design and use of the three dimensions of pedagogy, and their detailed elements, reflects the extent of the theoretical and evidence-based aspects of the model; and the interrelationship of the dimensions, the elements and quality of the learning evidenced by improved students' performance. The current New South Wales (NSW) model of quality teaching has evolved from a series of studies and reform initiatives that seek to improve student performance, and evaluate the relationship between teachers' teaching practices and students' performance.

The genesis of the reform initiatives and the desire for a framework for school improvement was the 1999 ministers of education ministerial meeting where an agreement was reached on the need for a national action plan to improve the quality of schooling. The achievement of these national goals involved a commitment to collaboration for the purposes of:

- Strengthening schools as learning communities
- Enhancing the status and quality of the teaching profession
- Continuing to develop curriculum and related systems of assessment, accreditation and credentialing that promote quality and are nationally recognized and valued
- Increasing public confidence in school education through explicit and defensible standards that guide improvement in students' levels of educational achievement and through which the effectiveness, efficiency and equity of schooling can be measured and evaluated (Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA), 1999, p.4-6).

5.2   Background to the Model

James Ladwig and Jennifer Gore (2003) designed the NSW Quality Teaching Model (QTM). Its purpose is to provide a mechanism that the NSW Department of Education and Training could utilize to achieve its national school reforms strategized in the Adelaide Declaration

(1999) *National Goals for Schooling in the Twenty-First Century*. The NSW Quality Teaching Model (QTM) was designed on research results and analysis of Newmann, et. al's., (1998) work in the United States on authentic instruction and authentic student achievement. Newmann and his colleagues advanced the concept of "authentic academic achievement and specific standards for pedagogy and student performance that are consistent with active learning, or constructivist perspectives, but that establish standards of intellectual quality rather than teaching techniques or processes as the central target of instruction" (Newmann, et. al., 1998, p.280).

Based on their Wisconsin research which studied the relationship between 'authentic pedagogy' and student performance, they advanced the theory of authentic pedagogy and authentic student achievement. They concluded that '*Authentic Pedagogy'* is a "combination of instruction and assessment rooted in a primary concern for high standards of intellectual quality - and the resulting authentic student achievement, which represents accomplishments that are significant, worthwhile, and meaningful" (Newmann, et al., 1996, p.1). The basis of Newmann and his colleagues' (1998) theory is that authentic pedagogy is strongly associated with authentic academic performance, and that authentic pedagogy can be applied equally to students from diverse social backgrounds. According to Newmann's theory, this is achievable by different students because the importance is on active learning and genuine teaching and learning strategies. Their theory proposed that active learning is not possible without standards for intellectual quality, and they recognized that different factors could enhance authentic pedagogy and its associated learning. In short, it is this process that determines quality teaching.

Newmann and Wehlage's, view was that authentic student achievement is only achievable through the use of authentic instruction that provides meaning and enrichment to both the teaching and learning process. They use the term *authentic* to distinguish between achievements that are significant and those that are trivial. They classified authentic achievement by using a similar set of criteria as those linked to authentic pedagogy: (1) students construct meaning and produce knowledge, (2) students use disciplined inquiry to construct meaning, and (3) students aim their work towards production of discourse, products, and performances that have value or meaning beyond success in school (Newmann & Wehlage, 1993, p.8). These sets of criteria allowed them to evaluate both the teachers' teaching (authentic

instruction) and the students' level of achievement based on the type of instructions received: authentic or trivial.

Newmann and Wehlage (1993) further explored the relationship between quality pedagogy and students' achievement, contending that student achievement was not only directly related to authentic pedagogy, but also to specific types of instruction that engage students to use their minds well, describing this link as '*authentic instruction*'. They further contend that to achieve authentic student achievement requires authentic instruction, and to address issues of quality of intellectual work and go beyond the mere conventional requires the development of standards. They formulated five standards for instruction that they determined could produce authentic student achievement. The five standards for instruction are: "higher-order thinking, depth of knowledge, connectedness of the world beyond the classroom, substantive conversation, and social support for student achievement" (Newmann & Wehlage, 1993, p.8). Their argument is that even the most innovative, creative, student-centered learning and assessment activities "can be implemented in ways that undermine meaningful learning, unless they are guided by substantive, worthwhile educational ends" (Newmann & Wehlage, 1993, p.8).

To assess the relationship between authentic pedagogy, and to connect it with student improvement, they created three dimensions for defining student performance as authentic pedagogy. The three dimensions were: the construction of knowledge; disciplined inquiry; and value beyond the school (Newmann, et al., 1996, p.280). The aim of authentic pedagogy, they concluded, is to nurture independent, critical thinking in students, and to help students appreciate, live with, and experience the joy of working with cognitively complex problems (Newmann, et al., 1996, p.8), and in so doing provide an environment where students can develop and construct new knowledge through deep understanding of the topic; and provide them with skills that are relevant beyond the classroom.

The genesis of the *quality teaching* model that underpinned the Wisconsin research and the foundation for the NSW model was further shaped in Queensland, Australia. During the period 1998 to 2000 Queensland Education funded a three-year study known as the Queensland School Reform Longitudinal Study (QSRLS). The research was conducted by James Ladwig and Bob Lingard from University of Newcastle and University of Queensland respectively, who were co-directors of the research teams (Education Queensland, 2001). The observation

study of classroom practices was done in 24 schools over a three-year period (Ailwood & Follers, 2002; Education Queensland, 2001).

Ladwig and Lingard's study drew heavily on the theoretical and qualitative components of Newmann's research (Education Queensland, 2001; NSW Department of Education and Training, 2003). Their research focused on teachers in years 6, 8 and 11 assigned to teach subjects areas English, mathematics, science and social sciences. They observed and analyzed 975 classroom lessons and interviewed all the observed teachers, along with the principals and deputy principals of the participating schools. They collected additional data from teachers' assessment items, standardized test results and quantitative rolling surveys (Education Queensland, 2001; Ailwood & Follers, 2002; University of Queensland, 2001). 'Backward mapping' is how Ailwood and Follers describe the relationship between classroom practices and the goal of school based reforms. "The study backward mapped from student outcomes, classroom practices, school organization and external supports" (Ailwood & Follers, 2002, p.3). According to Ailwood and Follers, "this backward mapping approach was an attempt to locate classroom practices and relationships at the core of school based reform and innovation" (Ailwood & Follers 2002, p.3).

The Education Queensland Study (QSRLS) produced an enormous amount of data related to classroom and assessment practices, leadership practices, student outcomes (both academic and social), and the effects of restructuring. The research team also modified Newmann's model to include what they termed 'Productive Pedagogies', defined as a vocabulary of teaching developed out of the classroom observation instrument (Education Queensland, 2001; Ailwood & Follers, 2002). The study further found that there were certain key factors that can influence productive pedagogy and subsequently students' performance such as pedagogical practices, assessment practices, teacher attitudes and beliefs, nature of the professional learning community, quality of leadership practices, professional development, and system alignment and support (Sakarneh, 2007; Education Queensland, 2001).

These findings were consistent with the results of the Wisconsin study and elevated the model into an evidence and data based designed model that it was felt if implemented could provide the results education systems required to support quality teaching and improve students' performance.

5.3   Characteristics of the NSW QTM

In 2003 the Queensland model was modified and re-contextualized for the NSW Department of Education and Training (NSW Department of Education, 2003). While the NSW QTM reflects all the elements of the Queensland model, it expanded the framework to include both quality for teachers and school leaders. The uniqueness of the New South Wales (NSW) model compared to the Queensland model is that it addresses both teacher quality and educational leadership, both aspects that are considered crucial to the enhancement of quality of teaching and learning, improvement of student achievement, and the improvement of schools in general. Compared to other models of teaching and learning, the uniqueness of the model and its strength is its development, design, structure (architecture) and theoretical groundings to address the issue of quality teaching practices and its relationship to students' achievement.

The model encompasses the following elements: first, the model is based on extensive research using empirical, theoretical and longitudinal studies that show a direct correlation between quality teaching practices and student achievement (Sakarneh, 2007; Newmann et., als., 1996; NSW Department of Education & Training, 2003). Second, it focuses on the core business of teaching which is pedagogy, including teachers' ability to reflect on their teaching, and use the outcomes to improve their teaching. Third, the model provides a framework to focus on teaching skills and identified best practices. Fourth, it provides a foundation and a platform for the NSW Department of Education and Training to develop and expand its *National Goals for Schooling in the 21st Century*, the Adelaide Declaration (1999) that highlighted the government's commitment to improving Australian schooling within a framework of quality and standards (NSW Department of Education and Training, 2003).   Fifth, its principles and elements are designed and structured to be applicable across all levels, all grades (pre-school to high school) and all subjects, and key learning areas (NSW Department of Education and Training, 2003; Sakarneh, 2007). Sixth, the model is comprehensive in nature as it covers all the dimensions and qualities of teaching that are directly linked to improved students outcomes (NSW Department of Education and Training, 2003).

The underpinning function of the model is a framework for focusing and providing consistent messages about pedagogy, a process that allows teachers to assess and evaluate their professional practices and needs in a collegial environment; and to feed this into a professional development program for school improvement (NSW Department of Education and Training, 2003). The above six points define the architecture of the NSW QTM and

highlight the evidence-based components. The model's underpinning is sound and tested research on best practices, and how teaching and school improvement can promote improved student learning outcomes (Ramsey, 2000; Hill & Rowe, 1998; Rowe & Rowe, 2002; Queensland School Reform Longitudinal Study, 2001).

Analysis of the underpinning research into quality pedagogy supports the relationship between teaching practices and student achievements. The research shows evidence of the cause and effect relationship between teaching and student performance, and establishes that teaching is a prime factor in influencing student improvement, and that there is a direct correlation between three main features of classroom practices and students' learning outcomes. It further confirms that teaching that focuses on these three dimensions has a positive effect on student learning. The NSW Quality Teaching (QT) model, in addition to the three dimensions of teaching and learning, also comprises eighteen observable elements that further delineate the learning that takes place within the classroom and the assessment tasks. The model's three dimensions of pedagogy and their associated elements reflect the extent of the theoretical and evidence based aspects of the model and the interrelationship of the dimensions, the elements and the quality of the learning in achieving improved students' performance.

The overarching benchmark of the uniqueness of the model is its focus on both classroom practices and assessment tasks and its application by different teachers across all subjects and grades. According to Ladwig and King, "the strength of the model is that it synthesises general characteristics of pedagogy, thus making it applicable across subjects, key learning areas and years of schooling. In so doing, it offers a coherent vision of quality teaching necessary for developing a shared vision of pedagogy on a school-wide basis" (Ladwig & King, 2003, p.6).

5.4   Dimensions of the Model

The model comprises three interconnected pedagogical dimensions which lay the foundation for strengthening the quality of teachers and the delivery of learning. The first dimension of the model is the intellectual quality which is central to the framework and supports the other two dimensions. However, all three dimensions are essential for improved student outcomes (NSW Department of Education and Training, 2003). The intellectual dimension refers to "pedagogy focused on producing deep understanding of important, substantive concepts, skills and ideas. This type of pedagogy treats knowledge as something that requires active construction, and

requires students to engage in higher order thinking and to communicate substantively about what they are learning" (NSW Department of Education and Training, 2003, p.5).

In this context, intellectual quality means teaching practices that focus on producing deep knowledge and understanding of key ideas and skills in students, and derives most of its elements and emphasis from authentic pedagogy developed by Newmann et., al, (1996, 1998) and the subsequent expanded model developed by Ladwig and Lingard in the QSRLS study (2001). Ladwig and Lingard (2001) expanded the elements of authentic pedagogy to include metalanguage and problematic knowledge as indicators of intellectual quality. It further determined that connectedness to the world was better understood as an indicator of a separate dimension of pedagogy (NSW Department of Education and Training, 2003; Queensland School Reform Longitudinal Study (QSRLS), 2001).

This dimension also reflects elements that are comparable to concepts outlined in Bloom's Taxonomy of learning domains, and the three types of learning known as KSA (Knowledge, Skills and Attitude). Bloom's taxonomy scale identifies three interconnected progressive levels. The cognitive, intellectual and psychomotor levels involve knowledge, development of intellectual skills, and psychomotor which deals with skills. Development of these skills requires practices that are measured and affective and relate to how one deal with emotions, values, motivations and attitudes; and how these affect an individual's level of learning (Bloom, 1956).

The element of higher order thinking however is directly related to Newmann's studies conducted in school across the United States. Newmann and his colleagues investigated factors that affect students' performance and the teaching of higher-order thinking. They found that "students who received lessons high in 'classroom thoughtfulness' did better on an assessment requiring critical thinking and persuasive writing" (Ladwig & King, 2003, p.7; Newmann, 1991; Newmann & Associates, 1996; Lee & colleagues, 1995), than students who were not taught higher-order thinking skills.

Through a series of studies at the Center on Organization and Restructuring of Schools (CORS), Newmann and his colleagues in 1993, 1996 and 1998 reviewed 24 schools that have undergone restructuring across the United States. Each school was studied for one year and teachers in mathematics and social studies were observed and submitted assessments tasks

along with students' work. To ascertain if authentic intellectual work was taking place in the classroom the research team coded the students' work on dimensions such as higher-order thinking, depth of understanding, and substantive conversation (communication). They found that regardless of the level of the school (elementary, middle or high school) authentic teaching and learning was strongly linked to students' academic performance. This they determined occurred when "teachers provided instruction and assessments that emphasized intellectual quality, and when this element is emphasized students did better on classroom-based assessments" (Newmann & Wehlage, 1993, p.8; Newmann, Marks, & Gamoran, 1996;Ladwig & King, 2003).

This correlation between authentic instruction and higher student performance was also supported by research findings of Lee, Smith and Croninger, (1995, 1997) in their National Educational Longitudinal Surveys (NELS) which examined factors that influenced gains in student learning on conventional achievement tests; and Newmann, Lopez and Bryks' (1998) examination in Chicago schools of classroom-based tasks in writing and mathematics and student work on the tasks. Further analysis and support of the connection between the quality of teachers' tasks and level of student achievement on standardized tests in reading and mathematics was produced by Newmann, Bryk and Nagaoka, (2001). Their findings indicated that students who received higher levels of authentic tasks did significantly better on the state standardized test; and further confirms in general the direct correlation between the level of authentic instruction, high quality intellectual assignments or tasks, and students' performance and achievement. This element, it was further determined, is relevant when applied to students with low achievements or special needs. According to Newmann et. al., "authentic intellectual assignments enrich instruction not only for able children but for all students" (Newmann, Bryk & Nagaoka, 2001, cited in Ladwig & King, 2003, p.13).

The expansion of intellectual quality to include problematic knowledge within the authentic pedagogy framework drew on the work of Berlak and Berlak (1981), while the idea of metalanguage was based on the work of Christie (1990) and Freebody, Ludwig and Gunn (1995). The focus of this concept is that the inclusion of both problematic knowledge and metalanguage in the intellectual quality dimension would enhance and enrich students' learning, thereby ensuring a broader and more generalized context. The element of problematic knowledge allows for teachers to expand their range, depth and breadth by critically discussing and analyzing ideas and knowledge. This critical analysis will enhance students' understanding

of knowledge and that knowledge relative to different perspectives and viewpoints, and not as a static process.

The element of metalanguage deals with the principles of instruction that incorporate aspects of language, and strategically selects moments to engage with students about different facets of language, both as a medium of instruction and language concepts. The aim is to achieve high-metalanguage: "Teachers choose teaching moments within activities, assignments, readings and lessons to focus on particular words, sentences, text features, discourses and so on" (Education Queensland, 2001cited in Ladwig & King, 2003, p.14). The use of metalanguage also allows for engagement by students in language relevant to their context.

The research illustrates that with quality instruction and enhanced classroom work and assignments, the majority of students can improve performance; and, according to Ladwig and Gore (2001), supported by studies (e.g. Rist, 1970; Oakes, Gamoran & Page, 1992) which "show that one of the main reasons some students do not achieve high academic performances is that schools do not always require students to perform work of high intellectual quality". Conversely, Newmann and Associates (1996) suggest that "when students from all backgrounds are expected to perform work of high intellectual quality, overall student academic performance increases and equity gaps diminish, relative to conventional teaching practices" (Queensland Department of Education & Training, 2003, p.9).

The second dimension of the model is quality-learning environment and deals with the specific aspects and needs to support learning in classrooms. According to the NSW model, learning is improved when the classroom and other learning environments provide high levels of support for learning (NSW Department of Education and Training, 2003). The focus of the dimension is that quality teaching is not possible in environments that are not supportive. The dimension draws attention to the specific need to support learning, as well as the need to support students in an enriching classroom. It does recognize that there are limitations to this dimension as teachers are not able to control things or environments that are outside the classroom. However it does recognize that teachers can demonstrate positive support that can be indirectly transferred to environments outside the classroom, such as the home and the community at large.

This feature has significance especially when dealing with diverse student populations and cultures. It is viewed that aspects of encouragement and positive support of learning and students will have overall general positive impacts which will enhance students' outcomes. While the most direct impact is linked to teachers, it is not only teachers who affect the learning environment, but is a shared role between the school leadership, learning communities and the communities at large. Consequently, to be thoroughly effective the support needs to come from all adults who share the learning environment (NSW DET, 2003).

The quality learning environment dimension has six elements that delineate the components of a supportive learning environment. The objectives are to focus on characteristics that are observable in classrooms where there is a high quality learning environment. In their discussion on the merits of these elements the authors acknowledged that some of the elements are techniques for building quality learning environments, while others are more observable in quality learning environments (Ladwig & King, 2003). According to Ladwig and King, 'research behind the elements of NSW dimension of quality learning environment provides a body of work that can develop further teachers' thinking about some things they already do, and provide some possible new ideas of other things to try" (2003, p.14).

The emphasis of the elements is linked to the psychological and emotional adjustment of students and their functioning in the classroom. The balance or rather lack of balance between these two aspects, it is argued, could affect students' performance. This expectation leaves the emotive balance and adjustment of students squarely within the capability of teachers and implies that if teachers make students feel encouraged and safe in a positive and engaging learning environment, then their outcomes are more likely to improve.

5.5   Analysis of the Model

The NSW model identified and recognized the findings of research which support the relationship and effect that quality learning environment can have on students, their performance and overall achievement across all grades and student populations, cultures and backgrounds. The research undertaken to support these elements was diverse and while some question the element of *explicit quality criteria* others were in support of its use and observability.

The Queensland School Reform Longitudinal Study (2001) of 300 classrooms found that these elements of pedagogy were more regularly observed than the elements of intellectual quality, primarily because teachers already know about quality learning environment and its importance, and many were already providing it to their students. Some of the primary arguments in support of explicit quality criteria stressed that inexplicit or ambiguous pedagogy can disadvantage students from diverse backgrounds, cultures and languages (Bernstein, 1975, 1997; Cope & Kalantzis cited in Ladwig & King, 2003). Bernstein (1975) distinguishes between "invisible" and "visible" pedagogy and their relationship to class and culture and their relative impact on children and their transition to the various stages of development and learning. The use of invisible pedagogy disadvantages students as its focus and intent is unclear and can be misinterpreted, and students are unaware of what is expected.

The major issue with applying the explicit quality criteria within the Abu Dhabi context would be the teachers' evaluation of students. The potential flaw or imperfection in the structure is the definition and application of visible and invisible pedagogy and the criteria used by each method. According to Ladwig and King (2003), in evaluating students visible pedagogy employs clear criteria which are standardized, while invisible pedagogy uses multiple, diffuse and imprecise measurements. This aspect of the quality-learning environment is fundamental to the success of the quality-teaching model and brings an important aspect to the forefront for teaching in a diverse cultural and linguistic community. If the basic concept of invisible pedagogy in primary schools is considered to be "play" "which socializes the child while he explores and allows the teacher to evaluate his development", then children from different cultures and languages would be disadvantaged if the teacher is unaware or unfamiliar with the child's social environment and associated hidden and extra-curricular expectations.

The engagement and social support element is an important aspect of the quality learning environment. Research indicates and supports the connection between supportive classrooms, students' engagement and students' achievement (Newmann, 1989; Newmann, 1992; Marks, Doane & Secada, 1996; Ladwig & King, 2003). According to Newmann, engagement entails more than motivation. It goes to the student's investment and applied efforts in learning. He equates it to the "student's psychological investment in and effort directed toward learning, understanding, or mastering the knowledge, skills, or crafts that academic work is intended to promote"(Newmann, 1992, p.12). With this psychological commitment, students are encouraged to try hard to learn and in so doing take pride in the achievement of grades. This

encouragement implies comprehension and understanding of the information, which is then internalized and used in their lives beyond school. Based on this definition, an engaged student is one who is motivated to learn.

Newmann and his colleagues explored and delineated the components of the engagement element, which they determined to be a crucial aspect of the model as it relates to the building of social support that involves students' interrelationships, social activities, and a sense of membership or belonging within the school environment. The importance of this connection is supported by the findings of the CORS study conducted by Marks and colleagues (1996). Their study and review of 24 restructuring schools found that there was a direct link between those teachers and schools that aim for high levels of intellectual quality and learning environments that communicate high expectations to students. The findings of their study highlighted the important role that a quality-learning environment has and the role it plays in improving students' performance. The study showed that a high quality learning environment supported by consistent help to students to meet the expectations resulted in high intellectual performance on the part of students. Ladwig and King (2003) identified key aspects of social support for students' achievement both at general, cultural and classroom levels. These key elements are identified and demonstrated in the following actions:

- Teachers listened to students
- Students made friends with peers from diverse backgrounds
- Students were not put down by other students
- Students were treated fairly by their peers and by adults (Ladwig & King, 2003, p.16)

In this environment teachers promote and demonstrate an environment of mutual respect, understanding and trust. At the classroom level, they found that the support that impacted the achievement of students, involved their active engagement, promotion of high expectation and performance in the form of the following actions:

- Students worked cooperatively on intellectually challenging tasks
- Teachers were relentless in their demands for students' best efforts
- Teachers were actively attentive to individual students
- Teachers and students shared responsibility for all students' learning (Ladwig & King, 2003, p.16).

The research found that teachers who actively engage students also actively worked towards the building of social support thus leading to high expectations of students' achievement (Ladwig & King, 2003). High expectation was identified as a key attribute of both authentic and productive pedagogy and is an explicit characteristic of the NSW model of pedagogy.

High expectation is rated highly within the NSW model as research has shown its potential impact and relevancy to quality learning environment. The authors of the NSW model recognized that the application of high expectation within a professional development model was complex and was in need of more discussion and analysis to ensure that high expectations remain flexible, and should be part of continuous professional development. The basis of the NSW dimension on quality learning environment, elements of engagement, and high expectations reflected the work and research of Jere Brophy that focused on the importance of students' motivation and its effects on students' achievement. Brophy's work on strategies and principles of motivating students to learn was designed to support teachers' efforts to incorporate motivational principles into their instructional planning (Brophy, 1998).

The importance of Brophy's work was that its focus was on what teachers could do and accomplish within the realities of the classroom. According to Brophy, "teachers' motivational strategies need to focus on motivating their students to learn – to achieve the intended curricular outcomes – not merely to enjoy their time in school. Learning should be experienced as meaningful and worthwhile, but it requires sustained goal-oriented to construct understandings" (Brophy, 1998, p. xi). Brophy's theoretical framework and research reflected those of authors such as Maehr and Meyer (1997), Murray (1964) and Ford (1992), which analyzed students' motivational strategies and the importance of reinforced and explicit behaviours to support learning within the classroom environment. The importance of Brophy's theoretical analysis and its significance for the quality learning environment is its findings that confirmed the lack of relevance of students' background, culture and social status when compared with the benefit and progress that can be achieved if they are motivated to learn. It further shows that these motivational principles and strategies have the maximum impact if they are imbedded in teachers' instructional planning. According to Brophy, people are born with the potential to develop motivational dispositions. However, higher-level dispositions such as motivation to learn are developed gradually through exposure to learning opportunities and socialization influences (Brophy, 1998).

The fifth and sixth elements of the quality learning environment dimension relate to students' self-regulation and student direction. Both elements deal with the increased responsibility of students for their behaviours and their own learning. The element of student self-regulation, while linked to academic achievement, is viewed as an aspect of classroom management which relies on students taking ownership of their behaviours, thereby relieving teachers to focus on

teaching (Glasser, 1984, 1986; Meichenbaum and Biemiller, 1998; Zimmerman and Schunk, 1989).

Students' direction, on the other hand, focuses on students' influencing what is taught, how the activities or topics are completed, and the degree to which they are actively involved in their learning. The key characteristic of this element is its structure of interactive instruction and learning (Ladwig & King, 2003; Smith, Lee & Newmann, 2001). According to Smith, Lee and Newmann (2001), evidence from their studies indicates that there is a direct link between interactive instruction and learning, specifically in subjects such as reading and mathematics. Aspects of student direction are drawn from constructivist ideas about curricula (Briggs, 1992; Anderson, 1977; Papert, 1991; Duckworth, 2006) and collaborative learning found in many of the student-centered approaches (Slavin & Fashola, 1998). As this component is often imbedded in the totality of both the intellectual quality and the quality-learning environment, it is difficult to analyze the extent to which teachers would actively incorporate the activities as a separate and primary part of the learning process. It is more likely that they are viewed as secondary facets of other elements with an assumption that they are therefore covered and applied. In addition, there are some activities and topics that teachers might not allow students to decide on since the expectations and outcomes are structured around the evaluation process and therefore need to be controlled by teachers.

The strength of this dimension is the connections it makes between the learning and the social nature of both the students and the learning environment. Its understated relevance is that while students might have the intellectual capacity, and teachers ensure and promote high levels of intellectual quality, without a supportive learning environment students' achievement could still be affected. "While the nature of learning and the knowledge addressed in classrooms is crucial, it is also equally clear that students' learning is enhanced in an environment that is directly supportive of learning" (Ladwig & King, 2003, p.14).

It is this strength that allows for the adaptability of the model as its focus is on strategies for teachers professional development, and therefore can influence all students regardless of background, socio-economic status, language and culture. Its relevance and significance to the dimension, however, is its weakest point as it is difficult to observe these characteristics in the form of actions on the part of teachers and students in the classroom. It further emphasizes the aspect of offering techniques for teachers to build the environment that is not always possible,

which would be the case in less developed and stabilized systems such as in the Abu Dhabi context.

The dimension of significance deals with meaningful learning and is connected and made relevant to students' real lives. It further facilitates them in constructing new knowledge on the basis of, and in connection with, their existing knowledge. According to Ladwig and King, "the dimension of significance is comprised of specific ways teachers can link students into the new and challenging knowledge presented to them" (Ladwig & King, 2003, p. 20). The notion is that to achieve high quality learning outcomes for each student, students need to understand and build meaning from the challenging aspects of the work, the activities, and within the context of the subject matter being presented. This implies that pedagogy for meaningful learning must take into consideration students' social, cultural and linguistic diversity. To make these connections apparent the dimension is constructed around six elements that relate to the connectedness and holistic approach to teaching and learning.

Teachers' actions are reflected in the linking of lessons to students' prior knowledge, social, demographic and cultural backgrounds, and families and social communities. "To build effective connections teachers will need to work from a combination of their knowledge of the specific subject matter they are teaching and their knowledge of the cognitive, social and cultural backgrounds of their students" (NSW Department of Education and Training, 2003, p.14). There are key relevant and significant aspects to the third dimension: firstly it recognizes that the best teaching takes place when teachers link new lessons to what students already know, and it makes the content relevant to the students' realities. It also bases its approaches on the assumption that students are not blank canvasses, but are holders of previous knowledge and can contribute to their own learning. The background knowledge that students' bring is important to their learning process and this element according to Ladwig and King (2003) is the extent to which, and frequency with which, teachers explicitly invoke and use student background knowledge in the teaching of their lessons.

Secondly, the dimension recognizes the extent of diversity within the classroom and the importance of inclusion to add enrichment and meaning to the curriculum, student engagement and acquisition, and the learning environment. It promotes the value of teachers by including different viewpoints and understanding from different cultures into their lessons, thereby moving from stressing one dominant cultural viewpoint and knowledge, while unconsciously

devaluing alternative knowledge and cultures. Ladwig and King express this level of inclusion and dimension of significance as, "legitimatising the cultures for all students, through the inclusion, recognition and transmission of the relevant cultural knowledges" (Ladwig & King, 2003, p.21). The importance and essence of this element is in the teacher's ability to demonstrate the existence of different types of knowledge and that they are valued. It is therefore important that in order for teachers to make it clear to students the significance of what and how they are learning, what matters is that they must demonstrate that different types of knowledge are valued and legitimate (NSW DET, 2003).

Thirdly, the inclusion of knowledge integration strengthens the significance dimension as it demonstrates that integration of subject areas and how it can build students' learning as it assists students to recognize the meaning, purpose or *significance* of what they are learning. Integrated subjects areas and therefore knowledge integration is especially important for young learners as it recognizes and promotes a holistic approach to the developmental nature of the child (www.acsa.edu.au; www.bced.gov.bc.ca). It further illustrates how learning is developed and emphasize that young learners do not learn things in isolation but through connection with all aspects of their environment.

Fourthly, inclusivity and connectedness are two elements that are designed to ensure that teachers value the contribution and participation of all students in their classrooms. It is important to note that inclusion does not only mean the extent to which students are provided with the opportunity to participate in the classroom, but also to "equitable access to the benefits provided by schools" (Ladwig & King, 2003, p.23). Inclusivity and equitable access were found by authors such as (Jorgensen, 1998; Thomas, Walker & Webb, 1998; Malin, 1995) to influence classroom practices which positively impacted and improved the social and academic outcomes of students.

The element of narrative is grounded in works dealing with oral traditions and narrative practices, and promotes the use of narrative as a pedagogical tool for opening up access (Ladwig & King, 2003). The supporting research suggests that students from cultures that use oral based traditions and practices such as Indigenous and Nomadic communities, may learn best through narrative structures (Goody, 1977; Christie, 1985; Harris & Malin, 1994). Researchers such as Egan (1997) suggest that narratives should be used as a means of linking students into formal knowledge, thereby building the significance of student learning. Egan's

view is that narrative or "*story form*" or "*story telling*" should be valued as a significant strategy for teaching and learning (Ladwig & King, 2003). This aspect of the element is crucial to its effectiveness as it allows the teacher to tap into the cultural reality of students, and engage them through the use of narrative as a pedagogical tool, thereby making learning relevant to the students' world in which they live.

The use of narrative as a learning tool would be relevant for students within the Abu Dhabi cultural context as verbal translation and storytelling is a vital part of their heritage. The challenge for the system is to balance this aspect with the demands of the new curriculum that is standards driven, and the effective use of the tool by teachers who would not be sufficiently trained to effectively apply the factors and maximize the benefit of the tool.

The significance aspect of the learning element could be a challenge for both teachers and students in systems where their realities might not be connected. In situations where the social, cultural and linguistic divide exists amongst teachers and students, teachers would teach subject knowledge with no relevant connection to students' social or cultural surroundings. This action would jeopardize the notion of meaningful learning for students, and teachers' development of their professional knowledge and practices, as they relate to significance.

The model is structured around what is seen as the core business of the teaching profession-*pedagogy,* and purports a philosophy of "authentic achievement constructed on advancing the intellectual quality of learning through various pedagogies and the nurturing of a professional community of learners" (Newmann, 1996 cited in Hall, 2004, p.7). A review of the literature indicates that there have been several modifications and reiterations of the original quality framework (NSW DET, 2003; McConaghy, 2002; Newmann, 1996; Ladwig, 2004; Education Queensland, 2000, Ladwig & Gore, 2005), however, the model has not been adapted or applied outside of a western-based education system. By this it is meant that the model has been applied in developed western English based societies such as the United States and Australia.

It is important to note that while very few studies have analyzed the transferability and replication of the NSW model with diverse population, one could review and evaluate the results of studies that were undertaken in rural NSW schools with Indigenous communities such as those conducted by McConaghy (2002). This is one of the few studies that attempted

to apply the model in its entirety and with population(s) outside of mainstream communities. McConaghy's project dealt with productive partnerships for teaching quality and rural pedagogy in Indigenous communities. In this study McConaghy identified contextual factors that can influence quality teaching and learning in rural schools and especially in Indigenous communities (McConaghy, 2002).

The significance of McConaghy's research is that it acknowledges and reconciled some of the limitations of the original model (Wisconsin Authentic Pedagogy Model) on which the NSW Quality Teaching Model was based, primarily the crucial factor of potential biases towards its urban context; and the issue of cultural relevance. She stated,

> We consider that models of schooling reform need to pay more attention to teacher subjectivities, socio-spatial dynamics; the time of teaching; and the teaching of difficult knowledges. We also consider it necessary to rethink school-community dynamics and the place of quality teacher education in models that specify conditions for quality student attainment in rural schools. (McConaghy, 2002, p.9)

Her research also found that there are some assumptions and potential bias that were assumed into the model and later replicated in the NSW model that does not necessarily pre-exist in certain context such as Indigenous non-English communities. The analysis further revealed that the original model did not consider or fully explore the role of community, and the social and political contexts of the teaching and learning environments. According to Sakarneh (2007) the model neglected the background factor of the academic and professional preparation of the teachers in the study. These are key factors that will require contextual analysis of the model for the Abu Dhabi context.

This analysis does recognize that there are some weaknesses to the model that could affect its transferability. One of these is the narrow basis by which the model proposes to test teachers competency as this could limit is adaptability in the Abu Dhabi context. The importance of the NSW quality model is that it provides a framework for assessing quality teaching and learning and applies evidence that shows that improved student-learning outcomes are dependent on teacher quality. To this end, this model offers the most desirable approach to teaching and learning and a potential framework for Abu Dhabi to improve its teachers teaching practices, the achievement of its students, and the school system in general.

To determine the applicability of the NSW quality-teaching model into the Abu Dhabi context requires a thorough analysis of the research questions. The analysis is taking place within the context of the current Abu Dhabi Strategic Framework for Reforming the Abu Dhabi education system. The analysis will focus on the research questions and draw comparisons using the three dimensions of the NSW Quality Model.

The reason for selecting the NSW model is in part due to ADEC's decision to implement the NSW Curriculum Standards as part of its reform agenda to upgrade its curriculum in English, mathematics, science, IT, PE and health subjects. In addition, ADEC had also used the Australian Council for Educational Research (ACER) to assess its students in English, Mathematics and Science as a precursor to the curriculum implementation, and the NSW professional standards (school leadership quality model) as indicators for the assessment of the Abu Dhabi principals. These activities laid the foundation of a potentially easy transition of a NSW model as the basic principles and foundation of the Australian system has been accepted as relevant to the Abu Dhabi context.

Chapter 6: COMPARISON BETWEEN HOW QUALITY TEACHING AND SCHOOL LEADERSHIP IS DESCRIBED IN UAE AND THE NSW QTM

6.   Quality teaching and school leadership in the UAE

The UAE has no established measurement or mechanisms to evaluate or measure quality teaching other than the performance of their students on national tests. For the most part students performance on national tests have indicated that UAE students are at least three grades *below* students in the region, and below other OECD countries (ADEC, 2009; ACER, 2005). This was evidenced in a series of reviews conducted between 2005 and 2009 (ACER, 2005; ADEC, 2008, 2009; MoE, 2009).

In 2005, the Australian Council for Educational Research (ACER) conducted an assessment of grade 7 students in English (Reading and Writing), mathematics and science and found that students were performing far below their grade level and in some subjects they were performing at least two grade levels below acceptable international standards for equivalent grade levels. In English (reading) only 16 percent of students were found to be performing at grade level, 15 percent were performing one year below and 68 percent were performing at two or more years below. In Mathematics and Science only 10 percent and 3 percent were performing at grade level, and 35 percent and 57 percent were performing one year below and 55 percent and 40 percent two or more years respectively (Ministry of Education, 2005; Abu Dhabi Education Council, 2009).

A review of P-12 graduates entering higher education concluded that 99.6 percent of students entering the Higher Colleges of Technology (HCT) and 91percent of students entering United Arab Emirates University (UAEU) required foundational level or bridging programs in English, Mathematics and Science for 2 to 3 years before entering the regular degree program (Abu Dhabi Education Council, 2009). "A lack of preparedness leads to more than 95 percent of public school graduates having to enroll in remedial courses that can take as long as two years" (Al-Khaili, 2009).

Based on these results it could be argued that the quality of teaching is below standards for the region and below international standards. A student teacher ratio, which ranges between 1:20 to 1:15 from kindergarten to secondary level, would support expectations of a higher student

performance level. "This ratio is well within the internationally established norms to facilitate adequate teacher and student interaction" (Emirates Center for Strategic Studies and Research, 2008, p.1). The UAE, similar to the other GCC countries in the region have no certification procedures or mechanism to verify and guarantee the qualifications of teachers (Wiseman & Al-Bakr, 2013), and no distinction is made between foreign trained and locally trained teachers, also there are no established mechanisms for verifying the qualification and training of foreign trained teachers. Until recently, anyone with a B.A. degree in a subject area would be considered as qualified to teach in the UAE system.

When viewed in the context of the new teacher standards, a large number of existing teachers in the UAE government school system are either unqualified or under-qualified to teach (since a majority of them have only a B.A. degree). When applied to Emirati teachers many of the older teachers have only high school certificate or a diploma, however more recent Emirati graduates have a B.A. degree in a subject area (MoE, 2008, ADEC, 2008, 2009). Even under the new qualification criteria there are no standards for teaching at different levels or grades, and the current PD programs are inadequate at best, and do not support an induction program for overseas trained teachers.

At the time of this research there were two federal universities that were offering a bachelor of education degree to nationals (Emiratis). With the establishment of the Emirates College for Advanced Education (ECAE), an institution specializing in teacher education offering pre-service bachelor of education degree, a Post Graduate Diploma in Education (PDGE), and in-service professional development for Emiratis, and several private institutions starting to offer both options, the issue of initial academic qualification might be rectified. It should also be noted that both the national universities and the ECAE have had difficulties enrolling adequate number of students due to low quality of candidates, low graduation grades, and low performance of students on entry examinations.

The ECAE was established by the Abu Dhabi leadership for the purpose of training its teachers. It was the first institution of its kind in the region with a focus on teacher education and development. In its first year of operation the institute planned for a capacity of 400 students in its 4 year bachelor of education program, of which they accepted 362, the majority of whom did not meet the entry requirements, and were then required to complete 3-4 semesters of foundation level instruction in English, mathematics and science. Zayed University (ZU) and

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United Arab Emirates University (UAEU), both federal universities, estimate that they also provide on average two semesters of foundation courses for the majority of graduates entering their programs (Zayed University, 2008; United Arab Emirates University, 2008).

As part of the new teaching and assessment standards and qualification criteria implemented by the MOE, the Education Councils embarked on several major initiatives to improve the quality of teachers and specifically education. ADEC subsequently instituted a qualification policy that required all teachers to have a bachelor degree and teaching certification, along with other qualifications such as language proficiency (English and Arabic) (ADEC, 2009). It should be noted that this criteria was implemented without the Emirate having the appropriate mechanisms to certify teachers. The Council further stipulated that non-UAE teachers are required to have prior teaching experience. In addition, teachers are required to have the skills and competencies to teach either in a bilingual environment or in a primary language that require high levels of language skills, and need to show evidence that they have the required language proficiency level (English/Arabic) prior to being assigned to teach.

The issue of unqualified and under-qualification also extend to school leaders. As a precursor to the implementation of the new qualification standards, ADEC undertook competency assessments for its 757 school leaders: 328 principals and 429 vice-principals (NSW, DET, 2009; ADEC, 2009). The review involved three components which were as follows: personal assessment, assessment test based on ADEC's standards for school leaders, and one-on-one interviews. The personal assessment consists of a demographic analysis of the cohort including age, gender, nationality, academic qualifications and IELTS score. This was gathered through two processes: gathering of system data and individual written questionnaires. The questionnaires allowed principals to self-assess their own professional development needs based on ADEC's seven draft standards for school leaders. The assessment test was developed using the draft standards and consisted of 64 questions. The one-on-one interviews were designed to assess the leadership capabilities of the principals aligned to the standards and consisted of a series of questions and statements that are considered essential for quality school leaders to know and understand (NSW, Department of Education and Training, 2009; ADEC, 2009).

The findings indicate that while there were examples of outstanding leadership in schools, significant improvement in the leadership capabilities of the majority of school leaders were

needed. Of the 328 principals, only 207 held a bachelors degree, 63 a post graduate qualification, 14 a two year diploma or certificate, and 13 had no evidence of formal education (NSW DET, 2009, p. 4; ADEC, 2009). The findings also support the results of the ECSSR research, which found in-service programs to be inadequate and limited. They found that 32 percent of school leaders had not participated in any professional development activity over a two year period (ADEC, 2009).

A review of vice-principals qualifications indicates that they were more likely to have a degree and tended to have more formal and relevant education than principals, with approximately 64 percent having a bachelor degree in education or at least a general bachelor degree (ADEC, 2010). One of the key findings is that while the majority of female vice-principals had previous teaching experience; this was not the case for principals, especially male principals who are mostly appointed to the position. The existing system does have a qualification policy and criteria (minimum requirements); however, there is evidence that points to a practice of bypassing or overlooking these standards in favour of the Emiratization policy, which promotes the hiring of Emiratis regardless of qualification. This practice often favours male Emiratis and protects those in the system who are unqualified or without appropriate qualifications, as they cannot be terminated or forced to upgrade their education or skills.

A further challenge is that neither the MOE nor ADEC has a viable policy on continuous professional development (CPD) or a professional development framework for building the capacity and sustaining quality competencies; and based on current policies only Emiratis are eligible for any available programs. Even those teachers that meet the new standards and qualifications are still considered below international norms. However since most teachers and school leaders are currently not fully qualified and are without access to quality CPD programs, the challenge of quality still remains, which could severely undermine any reform initiatives being planned and implemented.

6.1   Current teaching practices and perspectives in the Abu Dhabi system

"Teachers' beliefs, practices and attitudes are important for understanding and improving educational processes. They are closely linked to teachers' strategies for coping with challenges in their daily professional life and to their general well-being, and they shape students' learning environment and influence student motivation and achievement" (OECD,

2009, p.3). The Abu Dhabi education system can be characterized as traditional both in it philosophical and educational approach. In this context 'traditional' philosophical refers to the pre-modern Islamic education systems (Kadi, 2006; Chapman, & Miric, 2009), and 'traditional' educational approach as defined by UNESCO (2004:1) as "an essentially expository form of teaching, dominated by the teacher, which relegates pupils to a passive role, reduces their classroom activity to the memorization of data to be recited to the teacher, and in particular, leads to the acquisition of skills of a lower taxonomic level". It also refers to what researchers such as Chapman, & Miric, 2009: 313; Bacchus, 2006; and Benard 2006 cited as 'using teaching strategies that overemphasise student test scores, rote learning and memorization'. Its values are grounded in traditional Muslim teachings and practices, which are the cornerstone of the current education system. In this context 'traditional' refers to the pre-modern Islamic education systems (Kadi, 2006; Chapman, & Miric, 2009).

The UAE, and particular the Emirate of Abu Dhabi, due to exponential growth in increased wealth and revenues, has experienced a shift away from traditional educational practices that were usually in line with religious practices. This conservative society, for generations educated by traditional religious and societal doctrines, had to move quickly to provide education programs in line with, and comparative to, developed nations education systems. This rapid economic growth meant that the education system had to develop rapidly to meet the demands of the society. This resulted in the Emirate wanting to compete in the global economic arena, and in the development and advancement of it human capital to ensure it comparative advantage in the global context. Due to its size relative to other countries in the region, and its limited expertise and teaching workforce, the Emirate has had to go beyond its boundary to find the necessary resources to staff its schools. Current teaching practices in the Abu Dhabi system are influenced by a range of factors and are impacted by the following characteristics:

(a) Heavy reliance on foreign trained contract teachers who are hired on lower salaries

Due to increase wealth and rapid expansion and development of its system the country has had to rely heavily on foreign trained teachers. In 2009 Abu Dhabi teaching workforce consisted of 12,004 teachers, 7,188 females and 4,816 males (Ministry of Education, 2009). The Emirate also has 757 school leaders: 328 principals and 429 vice-principals. The teaching workforce consisted of nationals (Emiratis) 5,517 and expatriates 6,487 (foreign trained teachers from different countries, primary Arab countries). The majority (99 percent) of the school leaders are

nationals (Emiratis). As the education system in the UAE was being established, and as is the case with any emerging system, the country has had to rely on overseas trained teachers who were hired at much lower salary than nationals with less qualification. Based on data sets obtained from the MOE and the education zones the numbers of foreign teachers fluctuate between 87 percent and 54 percent.

In 2009 the MOE figures indicate that Abu Dhabi's teacher workforce consists of 63 percent foreign teachers. This number often fluctuates based on the number of programs being conducted in the schools. For example, when the model schools were created there was an emphasis on maths, science and English so the Emirate recruited over 200 teachers to meet this new demand. Several Emirates use this strategy of targeted recruitment for special programs, and so these teachers are not reflected in the national registry, or included in the official data as they are outside of the ministry's authority, and are considered to be special contract teachers. Due to this heavy reliance on foreign trained teachers the system has had to rely on the training, experience, belief and attitudes that the teachers bring with them from their own context to the classrooms. As most teachers had first degrees in a subject and no pedagogical training they taught the subjects the way they were taught.

Teaching practices tend to be inconsistent and reflect the teachers own experiences, which tend to be traditional and primarily teacher-centred, where students engage in structured activities and memorization of information (Zayed, 2008; ECSSR, 2009; ADEC, 2009). The learning environment in the schools were found to be not conducive to high expectations and performance as teachers tended to be more concerned about remunerations and their employment contracts (ECSSR, 2009; ADEC, 2009). This approach and attitude is exhibited as a lack of commitment to the students and the teaching profession, and resulted in negative perceptions about the school culture and climate. Due to high incidents of behavioural and disciplinary issues teachers are often distracted from more meaningful teaching activities to deal with administrative processes related to these behavioural issues.

(b) Employment of a large number of under-qualified or unqualified teachers and school leaders

Due to the rapid emergence of the education system the country has had to rely heavily on large numbers of foreign trained teachers to meet the immediate demands, which resulted in the hiring of unqualified teachers. ADEC in a review of its teachers' qualification found that 7.9

percent of teachers did not hold a bachelor degree. Of those teachers with a degree only a small percentage, approximately 6 percent were in education; and the majority of teachers with a Bachelor of Education were Emiratis and were primarily teaching in KG and Cycle 1(grades 1-3) (Ministry of Education, 2008). In that same year the MOE terminated 600 teachers who were found to be without university qualifications (diploma, higher diploma, degrees).

In a recent article in the local paper (The National, June 2011), the Ministry of Education announced that more than 1460 teachers in UAE public schools still do not hold university degrees (http://www.edarabia.com/22742). Only recently has the MOE set minimum qualification criteria for teachers in an effort to improve the qualification of teachers. One of these standards is that to become "a teacher a person should have a B.A. in a particular subject and should also have completed 18 hours of educational courses from a university or college" (ECSSR, 2008, p.2). As most teachers were hired before the new criterion became effective, the majority of the teachers in the UAE school system hold only a bachelor's degree; and the majority, especially Emiratis have lower that a B.A. degree. Therefore, according to "the new criterion, these teachers are not qualified to teach" (ECSSR, 2008, p.10).

In a further study conducted by the ECSSR (2008) they found that of the 24,000 teachers in the UAE the majority (63 percent) were teaching in middle or secondary schools, and most are responsible for teaching maths, science and English. As most of these teachers are not fully qualified (as per the new MOE criteria) to teach at the middle or secondary levels, then the 156,672 students enrolled in these grades (6-12) levels may be at risk of being exposed to low quality of teaching at a crucial point of their intellectual development (ECSSR, 2008, p.13). This in turn could have implications for the UAE in general, as it is likely to produce low quality students and an under-qualified workforce.

Teachers who participated in the ECSSR study when asked if they feel their qualification is adequate for the classes they are teaching, the majority (93% males and 90% females) either strongly agreed or agreed, and 88 percent male and 86 percent female teachers believed that they did not need any extra qualification (i.e. higher degree) to do a better job in teaching (ECSSR, 2008, p.19). The research further found that 45 percent of the teachers said that in their opinion the quality of education has declined during the past 10 years. Of this, 72 percent felt that the major cause of low quality education was due to the behavioural problems of

students, 57 percent felt it was due to low teachers' salaries and 31 percent felt it was due to low quality of teaching (ECSSR, 2008, p.19).

The ADEC, NSW DET (2009) review also found that of the principals, 209 were considered below standard and lack the competencies and ability to lead their schools. Table 6 highlights the number of principals in each band in the three regions in Abu Dhabi Emirate.
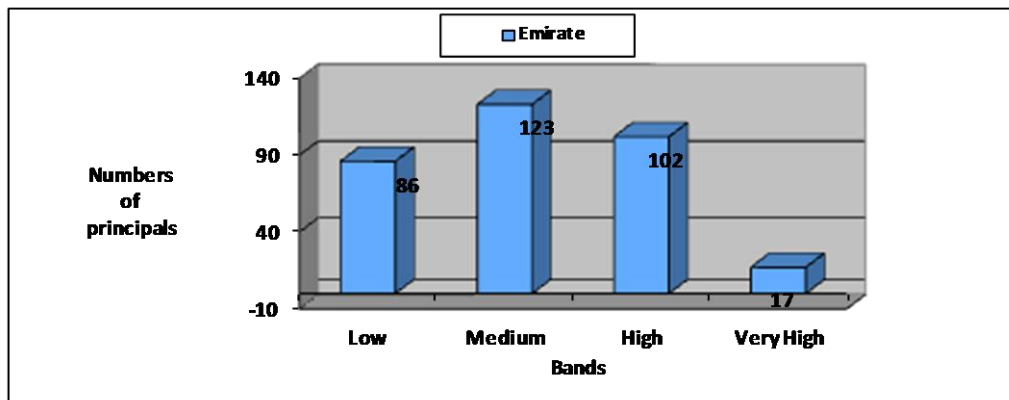

Table 6: Numbers of principals in each band for Emirate of Abu Dhabi

Of those principals considered below standard, 86 principals were in the lowest band, indicating that they do not have the competency or capability to provide effective leadership and school management. 123 principals were considered to have some competencies and attributes but have areas of weakness, limiting the extent to which they could provide and exercise leadership. 102 principals were evaluated at the high level, which indicates that they demonstrated competencies and capabilities to provide strong and effective leadership. Only 17 principals were considered to demonstrate the required competencies and capabilities that were comparable to international standards (NSW DET, 2009; ADEC, 2009).

The results were similar for vice-principals, which found that only 24 of the 428 were considered to have met the standards, and 69 were deemed to have none of the established criteria and qualification. The results show that while 168 exhibited some competencies they have areas of weakness that limit the extent to which they could provide and exercise leadership. 159 were determined to be just above average, which indicates that they demonstrated some competencies and capabilities to provide leadership while 27 were considered to demonstrate competencies and capabilities that were comparable to international standards (ADEC, 2009). With school leaders assessed below standard in capabilities and competencies, and lacking the skills to provide either instructional or managerial leadership to

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teachers, students or schools, this could have adverse affects on the performance of students and schools. This might also limits the impact they might have on whole school planning, supportive learning environment, and the quality of teaching and learning.

(c) Deployment of less educated and under-qualified teachers and school leaders to the rural regions

There are a large number of teachers and school leaders in the Emirate who are considered to have met the employment requirements or are exempt from the new criteria even though they only hold a diploma or post diploma, both of which are below degree status. All of these teachers are Emiratis, and the reason for this designation and exemption is due to the high numbers with these qualifications across the system. Due to the constraints of Emiratization policy many of these teachers and school leaders are deployed to rural regions. The perception is that they can do the least damage in rural schools as all aspects of the schools are underperforming.

This strategy is further utilized as a means of decreasing the Emirates reliance on expatriate teachers. In a 2008-2009 ADEC review of teachers and school leaders' qualifications, it was found that most of the teachers and school leaders in the rural regions did not meet the minimum qualification requirements. It was also found that rural cities tended to have more expat teachers with most having higher diploma, diploma, secondary certificate or no formal schooling. While the majority of teachers in the current system have a degree or a diploma in a subject area; the majority is still without a degree in teacher education, pedagogy or educational methodology. School leaders were found to be in a similar situation as teachers. Those in the rural regions were found to have the lowest level of education and competencies, and have least access to professional development. The deployment of teachers and school leaders considered under-qualified and low in competencies to rural regions without appropriate support mechanisms could also affect the quality of classroom practices and school performance; and could have lasting effect on the performance of students and the overall quality of the education system. This strategy over time may negatively impact the standard of the learning environment as neither teachers nor school leaders would be cognizant of the importance of enriching students' experiences and how to actively engage students into the learning process.

It should be noted that higher education awards such as degrees and diplomas are not accredited based on international standards, and only recently has one of the universities gained

acceptance for review by the Middle States Association of Colleges and Universities accreditation system to have their education programs accredited.

(d) Misalignment of the curriculum with the capacity of the teachers

Under the current education system and new teacher qualification criteria there are no distinctions between primary and secondary teaching and teacher training. The requirement for teachers to be employed is a degree in a subject area, and not necessarily a degree in education. The requirement of the education systems in the Middle East and the UAE alike is to hire subject specialists (Wiseman & Al-Bakr, 2013; Chapman, Miric, 2009). This criteria is endorsed even though both the MoE and ADEC implemented new qualification criteria. With the implementation of the new curriculum standards developed by the New South Wales Department of Education and Training (NSW) in 2009 and the new requirement of English as the medium of instruction teachers employed by ADEC are now required to meet English language proficiency. ADEC undertook a review of the language proficiency of its teachers and school leaders, and found that less than 10 percent of the English teachers across all public schools met the minimum requirements of English proficiency; and only 5 percent of teachers of subjects taught in English such as mathematics, science, IT, PE & Health met the minimum English competency requirements (ADEC, 2009). It should be noted that the NSW curriculum standards were implemented prior to the language proficiency criteria and the outcome of the language proficiency assessment.

Furthermore, due to the large number of students choosing to study arts subjects rather than science subjects, and the low performance of students in the science stream, the leadership is actively attempting to increase the number of nationals entering science classes to build their skills base in professions such as doctors and engineers; with improvements in the teachers language, English as the language of instructions for maths and science students would improve their overall performance and language skills thus boosting their entry requirement (admission) to higher education institutions. For the most part it is this strategy that is driving the new curriculum standards and the language proficiency criteria. In a review of 565 government high school English teachers, consisting of 211 teachers from model[5] schools and 354 from the government public schools, only 71 of the model high school English teachers and 38 of the

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[5] Model schools are government public schools initially designated and funded by the late President of the country as a reform initiative in Abu Dhabi Emirate and operated outside of the standard Ministry of Education structure. There are 24 schools across the three regions and cover all grade levels (KG-grade 12). They are considered schools of excellence and are better equipped with more resources, higher caliber teachers, access to updated curriculum and technology and are located in better facilities.

government public school teachers achieved the required proficiency level of an IELTS band 6.5 (ADEC, 2008). Based on the band indicators this level represents a competent user, and the user is determined to have a general command of the language with weakness and some inaccuracies, inappropriate usage and misunderstanding of concepts and terms.

A subsequent review was conducted one year later (two academic semesters) to determine the effectiveness of the new curriculum and teachers' competencies in delivering the curriculum. The results found that the language proficiency bands were too low for the standards of the curriculum, and the levels needed to be raised from general to academic level with an increase in the band level (ADEC, 2009). An *Academic level* proficiency level means that teachers would have a higher skills level which is more reflective of the command, competency and effective use of the language resulting in overall increase in proficiency and improved teaching. These findings highlighted the misalignment of the curriculum implementation strategy and the capacity of the teachers to teach the new curriculum, and served as the catalyst for further review and analysis of teachers' language skills for all schools types and grades. ADEC undertook a subsequent review of its 4000 English language teachers English language proficiency skills (Kindergarten - Grade 12) in its government public schools. The results of this review indicate that the majority of teachers required to teach English as a subject were below the ADEC minimum requirements (English teachers IELTS[6] score of 6.5, and mathematics, science, IELTS score of 5.5 Academic). The international standards are a minimum of 7's across the four bands (ADEC, 2009).

The data further indicates that of the 3 skills areas the teachers were strongest in grammar and weakest in writing and listening. The writing component is an area that with additional training and instruction could result in improvement, however; listening skills are directly linked to comprehension and depth in understanding concepts, and language nuances, which are more difficult to teach, and acquisition and improvements can take years. This would indicate that the majority of English language teachers are in need of on-going intensive English language skills development. Based on these results it would be very difficult for teachers to engage in authentic pedagogy when they themselves are struggling with both knowledge conception and subject comprehension.

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[6] The International English Language Testing System (IELTS) is an English language proficiency assessment system that assesses an individual's ability to function in English. This system was developed by the University of Cambridge ESOL Examination Centre and is designed as a standardized language assessment system that can be administered internationally. It tests the four language skills – listening, reading, writing and speaking.

In 2012 Education First published its English Proficiency Index (EF EPI)[7] which shows that countries across the Middle East and North Africa continue to perform poorly on language assessment compared to other countries of similar economic development (Education First, 2012). The UAE ranked 49 out of 54 countries with an English proficiency level considered very low (Education, First, 2012). In their results the education sector scored low on proficiency and just above the retail sector. Analysis of the outcomes indicates that both women and men score below the global average however women scored higher than males (p. 33).

Similar results were found amongst the Arabic subjects' teachers (UAEU, 2009; ADEC, 2009). The study highlighted that while the Arabic teachers are recruited from Arab countries they are from a diverse background with a range of different Arabic dialects; and not necessarily Classical Arabic. These different dialects were found have affected the levels of Classical Arabic language competence. Classical or traditional standard Arabic however is the form of Arabic used in the Quran and in literary texts, and is also the preferred form of the language in UAE schools and universities (UAEU, 2009). The study found that the majority of teachers (6900, over 79 percent) across all cycles and grades (kindergarten-grade 12) who use Arabic as the language of instruction failed to reach the established competent level (ADEC, 2008; UAEU, 2008, 2009). The groups with the lowest scores were found to be kindergarten and social studies teachers, and the majority of teachers were weakest in listening and reading (UAEU, 2009; ADEC, 2009).

One of the key findings of this review is that majority of the teachers displayed a lack of reasonable fluency in classical Arabic considered to be their mother tongue, which will not only impact on their effective teaching of subjects, but also the performance of students, as examinations for Arabic subjects are in classical Arabic (UAEU, 2009). The information also shows that teachers in rural areas were most likely to achieve the lowest scores in all areas (general and the four skills areas). In addition, Emirati teachers scored higher than expatriate teachers in all four skills areas and the general language (UAEU, 2009). This could be because the Emiratis Arabic dialect is closer to the traditional classical Arabic compared to the varied dialects of the expatriate teachers. Abu Dhabi Emirate like the other Emirates has some unique challenges that are related to the structure of their school system such as single sex schools in

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[7] The EF English Proficiency Index (EPI)- Standardizing measurement of adult English proficiency, comparable between countries and over time. It is the first index of its kind to give countries a benchmark against which to measure the average English competency of the working population. The index uses a unique set of test data from over two million adults who took free online English tests over a period of three years.

which all staff are of the same gender, and most high school (secondary school) teachers in subjects such as English, mathematics, science and Arabic are expatriates.

The above findings and analysis on unqualified or under-qualified teachers (ADEC, 2009) was further supported by the findings of the ECSSR (2008) study which established that 63 percent of teachers assigned subjects such as maths, sciences and English are not fully qualified to teach the subjects that they are currently teaching. All identify the potential impact this misalignment between teachers' competencies and curriculum could have on the quality of the teaching practices, teachers' ability to teach the subject content, lack of acquisition of language skills, and may explain low student achievements in these subjects. The Abu Dhabi teaching workforce is not a homogenous group and there is a distinct separation between Emiratis and expatriate teachers who are from different countries (mostly Arabic speaking) with diverse dialects, varied teaching practices and approaches, education backgrounds and language competences.

These factors are crucial when attempting to reform the quality of education as they indicate that teachers are missing several of the major qualities and requirements associated with student achievement, such as content knowledge, strong academic skills and competencies that identify quality teaching practices, effective strategies for the delivery of the curriculum and have been shown to influence and improve students' performance (Chapman, Miric, 2009; Education First, 2012; Wiseman, Al-Bakr, 2013). The outcomes also demonstrate that the current teaching workforce do not have a solid background or groundings in strategies relevant for standards based curriculum, the language proficiency required to teach a curriculum high in English content, or the general comprehension of the curriculum content required for the teaching of the identified subjects. Consequently the teachers appear to have major deficiencies in the competencies and standards that have been proven to influence students' achievement.

Analysis of similar studies (Wiseman & Al-Bakr, 2013; Chapman, & Miric, 2009; Wiseman, 2006; Maroun, & Samman, 2008) on teacher quality indicate that there is no link between teacher preparation and classroom implementation. "The most remarkable need in teacher preparation in the Arabian Gulf states is for a link between demonstrated competency in internationally-accepted standards for teachers and real-world classroom implementation. For example, there is internationally comparative evidence that instead of preparing teachers to

produce highly-qualified, high-performing and highly-productive students, teachers who demonstrate or conform to national standards for teaching have students who run the gamut of performance and productivity from very low to very high" (Wiseman, & Al-Bakr, 2013). The authors go on to say that "although alignment with international standards for teaching is one way to improve teacher quality, it is not a guarantee that classroom learning and student performance in the Gulf will improve" (Wiseman, & Al-Bakr, 2013, p.4).

(e) High turn-over of the teaching workforce

Unlike most teaching workforce worldwide that are experiencing an aging /experienced workforce Abu Dhabi has a relatively young teaching workforce, however Emiratis teacher and school leaders do not stay in the profession or system for very long. The current statistics indicate that 63.2 percent of teachers are below 40 years, and 86.6 percent are below 50 years (ADEC, 2008; ADEC, 2009). This is primarily due to the recruitment of younger and less experienced teachers who are prepared to work on a contract with low remuneration. As expatriates teachers are on work permits that require renewal every three years, the government can control and ensure only younger teachers are hired. Review of current Emirati teachers in the system shows that majority (4,675) are between the ages of 20-40 years, 716 are between 41-50 years, and 120 are between 51-60 years (Abu Dhabi Education Council, 2009).

Of the Emiratis in the teaching profession the data shows that there is a very high turnover rate of both teachers and school leaders. This is partly due to the social practices applicable to female teachers, and what is considered low remuneration compared to other professions. According to the Ministry of Education, the UAE (P-12) education system has one of the lowest retention rates of teachers in the region, especially high caliber Emirati teachers. Data from the MOE indicate that on average Emirati (UAE and Abu Dhabi similar rates) teachers work for only 7 years, compared to other countries in the region such as Palestine at 18 years, Syria 13, and Jordan 9 (Mof E, 2006). This is due to several reasons; education is not seen as an attractive or lucrative profession (Chapman, Miric, 2009; Wiseman, Al-Bakr, 2013) nationals find the wages low; females will often only work in the lower grades such as kindergarten and then leave the profession (ADEC, 2009). Under the country's policy Emiratis can retire at an early age and receive full pension compared to most OECD countries. There is also a shortage of Emirati males in education and those that are recruited tended to be there for short tenures as they are more likely to be recruited by other government departments.

Research has shown that there is a direct correlation between inexperienced teachers and low students' expectation and performance. The effects of having inexperienced teachers are lack of student performance and high dropout rates (Rivkin, Hanushek, & Kain, 2005; Fetler, 2001).

This constant turnover of teachers can also create inconsistencies, promote inadequate learning environments, and create a disconnect between teachers and students. This lack of continuity and collaboration between teachers has resulted in a lack of clarity and an agreed vision for schools which has impacted on quality factors such as academic goals and teaching strategies, and unclear articulation of shared strategies for students throughout the schools.

(f) Lack of innovative approach to teaching

One of the factors consistently identified in the various reports (Ministry of Education, Vision 2020; Abu Dhabi Economic Vision 2030; Abu Dhabi Education Council, 2009) is the outdated teaching method being used by teachers, their lack of creativity and innovative teaching practices and their reliance on structured and memorization activities in the classrooms. The ADEC (2009) report for example, states that in 96 percent of the government schools teachers did not prepare for their classes, they had no lesson plans and used the text books as the curriculum. It also reported that teachers did not use any additional resources to support their lessons, and designed their teaching to the content of the tests. Research by the local education faculty (Zayed University, 2008) also found that a significant number of teachers reviewed viewed the textbook as the curriculum, and not as a supportive resource; for example only a limited number of teachers, primarily those in Model schools had knowledge of, and were using ICT to enhance their teaching and learning (ADEC, 2009).

The ECSSR study and findings supported those of Zayed University, and found that "more than 90% of both male and female teachers strongly agreed or agreed with the statement that they know the curriculum of the subjects they teach, and the same number also believed that the curriculum was the same as the textbook that they are teaching" (ECSSR, 2008, p.12). The same reports also identified that teaching practices were out-dated, and teaching strategies focused on the content of the tests and promoted a culture of memorization. The studies found that teachers were not prepared beyond the general information provided in the textbook, and many teachers did not use additional teaching resources to support their lessons. These types of approaches and teaching practices, the reports indicate, demonstrate a classroom which

emphasizes rote learning, memorization, and the teaching of content which focused primarily on preparing students for examinations. The reports also showed that this approach and teaching style was supported and encouraged by both instructional leaders (supervisors) and school leaders within the schools (ECSSR, 2008; ADEC, 2009).

It was further observed that there were no clear strategies around school assessment or assessment tools to measure the progress of students. In addition, there was only one approach to assessing students, all students regardless of age or grade would for example, sit the 2-4 hour tests for each subjects. They found that it was not unusual to have primary students (grades 1-4) sitting for the same duration of time in all subject areas as secondary (grades 11-12) students (ADEC, 2008, 2009). Research has clearly identified that quality of instruction is fundamental to student learning. This quality extends to teaching practices that are used and their ability to engage students in the learning process. According to an ADEC report "Abu Dhabi does not currently use modern teaching methods, e.g. only 4 percent of public P-12 schools use modern teaching tools" (ADEC, 2008, p.4).

It is expected and could be argued that different instructional practices are required and relevant for different subjects, given the differences in content, subject matter, curriculum and specific instructional goals, and therefore should be taught using different teaching practices. Taking this perspective into consideration it could be expected that subjects such as maths and science might be viewed as more knowledge intense and therefore require a more structured teaching practices. However there was no evidence to indicate that teachers are applying more student-oriented teaching practices such as group work, or enhanced teaching activities such as projects in the other subject areas (Zayed, 2008). Information gathered by the MoE annual report states that there is a correlation between the use of outdated methods and high student dropout rates (MOE, 2009). The reports estimated that 10-15 percent of nationals, mostly male students drop out of school prior to the completion of grade 12, and about 10 percent of students repeat all grades (MoE, 2009). In a recent report on P-12 enrollment and attrition, the Emirate of Abu Dhabi had an estimated enrolment of 18,765 students in grades 10-12 and a dropout rate of 15 percent of which the majority were male nationals and who often withdraw at grade 10 each year (ADEC, 2008).

(g) Large number of subjects, curriculum and graduation requirements

A review of the ministry's inventory of subjects and its graduation requirements shows an emphasis on quantity rather than depth in specialized subject areas (MOE, 2008). This lack of depth in the available curricula is evident in the number of courses (approximately 13-18) students are required to take in Grade 12 to meet the graduation requirements (MOE, 2009). In addition, students are also required to take the Common Educational Proficiency Assessment (CEPA), which is an English requirement for graduation and is used as entry to higher education institutions (MOHE, 2009).

The CEPA test is a national test within country and is not standardized or equivalent to any other international tests, which means that students wishing to study overseas still have to take a standard language proficiency test such as IELTS or TOEFL. Due to the high stakes attached to this test the teachers have now substituted the standard English curriculum with the content of the CEPA test (NAPO, 2009). This preparation has become the English curriculum for the schools. Anecdotal evidence obtained from teachers and findings from the ECSSR (2008) survey indicate that students were finding the timetable too rigorous and demanding, especially the science stream subjects. The students also felt that students in the art stream performed better than those in the academic/science stream as the courses were less demanding and easier. One of the consequences of these perceptions is more and more students changing from the academic or science stream to the art stream, where they can take less demanding courses and therefore performance better on the tests.

In an attempt to decrease the drop-out and repetition rates, and increase the graduation rates and the percentage of students enrolling in science courses in higher education institutions, ADEC has outlined a plan to update and improve the public high school system by reducing the number of subjects taught in Grades 10, 11 and 12, and improving the senior curriculum in general (ADEC, 2009). According to the Director General, "we are on new pathways, one of them being reducing the number of subjects we teach today, which is around 13, to six or seven" (The National, 2010; http://www.edarabia.com/20630). There are a wide variety of curricula being used in the schools, each relevant to the type of schools (ADEC, 2008; MoE, 2008, 2009): Model schools tend to have the most updated curriculum and teachers are being trained in more student-centered methods and modern teaching tools; Public-Private-Partnership (PPP) schools are operated by private operators, are similar to private schools,

and are more likely to have the most up-dated curricula (curricula are reflective of curriculum from the provider's country; however while the operators determine and monitor the curriculum, the government controls the teachers, school leaders and the examination processes (ADEC, 2009).

In was found that the government public schools have the poorest and most out-dated and irrelevant curricula and teaching resources. Private schools, on the other hand, have curricula that reflect the student population they serve. Private schools, for example, mostly cater to expatriates children who would re-enter the school system in their home countries and therefore the curriculum is aligned to the standards of the country of origin, i.e. British or American curriculum (MOE, 2009). Curriculum reform and the implementation and validation of the new curricula standards, in addition to the development of benchmarks for student achievements are being encouraged and are part of the planned education policy agenda (ADEC, 2009). The changes would focus on improvement of the core subjects, development and expansion of curriculum learning outcomes; and development of benchmarks and standards that are on par with international standards. The changes would not only address the deficiencies in standards and students' achievements but also provide a more enriched and enhanced subject content.

Currently the Abu Dhabi education system accommodates and manages procedures for four different types of schools: private, government public schools, PPP, and government model schools (ADEC, 2009). All of these types of schools have different operating procedures. For example, students attending model schools have longer school hours and increased teacher contact hours than government schools (ADEC, 2009). Students in model schools are more likely to be exposed to different curricula, different approaches and methodologies of teaching and learning, and enjoy a smaller students-teacher ratio. The focus on an extensive number of subjects has impacted negatively on the system which is reflected in high drop-out rates in general, decrease in student enrolment in science and maths courses, and teachers teaching to the test (MOE, 2009; ADEC, 2009). These actions and activities have had lasting effects on the teaching and learning, and on the general quality of the education system.

(h) Teachers lack of knowledge of the students

Based on the information and the data discussed above there is evidence that current teaching practices have enforced a culture of isolationism, resulting in disconnection of teachers from

students, and showing that there is minimum engagement between teachers and students due to the type of activities being promoted in classrooms (Zayed University, 2009; ADEC, 2009; ECSSR, 2009). According to Wang, Haertel and Warburg (1993), classroom management and classroom interactions have effects similar in size to students' cognitive competencies and their home environment (OECD, 2009, p.11). It could be argued that due to the factors such as the high number of expatriate teachers, low expectations of student performance (Davies, 1999), lack of engagement and social support, lack of teaching and classroom strategies, lack of teacher training in pedagogical skills and in-service professional development, teachers have and demonstrate little knowledge of the needs of their students (ECSSR, 2008).

Based on issues of social status, cultural and economic factors in the region, these often have impact on the relationship between teachers and students. "There are sociocultural and economic factors that impede teacher effects on student learning and performance, and challenge the relevance or application of teaching standards to both teacher preparation and classroom practice in the Gulf" (Wiseman, 2006, p.4). The resultant impact is that teachers are limited in the type of support they can provide to students, or to the improvement of the learning environment. According to Davies (1999) and ECSSR (1999) much research shows that low expectations of students have a negative impact on their achievement.

(i) *School system with the least number of school days and the least number of direct contact hours with students*

According to ADEC (2009), the official Abu Dhabi school year consists of 142 days, which is the shortest of developed countries. It also reported that the Emirates also have the shortest school day, estimated to be 4-5 hours per day, while in many OECD countries the school day can be up to 8 hours. The average school days and the length of the school day are also affected by the Holy month of Ramadan and the celebrations that follows. The report further states that the teaching time (yearly instructional hours) is 746 hours, 8 percent below the OECD average, which is 810 hours; and for older grades the instructional time decreases to 746, 17 percent below the OECD average of 896 hours (ADEC, 2009). These figures combined with low students' attendance rates, estimated to be as low as 50 percent (ADEC, 2009), clearly demonstrate the extent of the challenges and the impact that certain practices are having on the current Abu Dhabi education system.

(j) Lack of coordinated quality teaching model and professional development framework

The level and effectiveness of the current teaching practices are affected by the lack of available resources and support to the teaching workforce. The system suffers from a lack of commitment towards professional development resulting in no coordinated continuous professional development (CPD) activities for either teachers or school leaders. There is no professional development framework for the general teaching workforce; and when available can only be accessed by Emiratis. The country and the emirate has a policy of investing in developing the capacity of its citizens and therefore very few teachers (as most teachers are expats) have access to professional development in their subject areas, enhanced pedagogical skills or effective methods of student assessment, of which over 97 percent would not have received these courses in their pre-service preparation (ADEC, 2009).

This policy is part of a larger social policy of Emiratization, and while it supports capacity building of its citizens it does not address the major problem of unqualified expatriate teachers, which is estimated at over 87 percent in some regions, and the majority are found to be in the higher grades (ADEC, 2009). In addition, due to social and cultural practices many Emiratis, especially women, are not able to participate in activities outside of school hours, and so professional development training is only available for and accessed by a few (ECSSR, 2008). In a recent survey of teachers the majority indicate that they had no professional development training or workshop on pedagogy, teaching methodologies or educational issues in their area of specialization in at least four years and for some up to 12 years (ADEC, 2008, 2009; Abu Dhabi Education Council, On-line survey, 2012).

The research indicates that factors that set certified teachers apart from other teachers is usually their training in teaching methods and in child and adolescent development, along with content knowledge (Greenwald, Hedges, & Laine 1996; Center for Public Education, 2005). Studies further show that to be an effective teacher one needs to collaborate with the wider learning community. Teachers do not act only in the classroom where they instruct students more or less in isolation from other classes and teachers. A modern view of teaching also includes professional activities on the school level, such as co-operating in teams, building professional learning communities, participating in school development, and evaluating and changing working conditions (Darling-Hammond, *et al.* 2005). These activities were found to

profoundly affect and shape the learning environment at the school level, i.e. school climate, ethos and culture, and thus directly and indirectly affect student learning (OECD, 2009, p.6).

The current practices in Abu Dhabi are not supported by either a professional standards or a professional development framework which also makes it vulnerable to external policies and procedures such as the wider application of the Emiratization policy. The influence of this policy and practices have implications for the system as the majority of teachers and school leaders are not provided with the opportunities to upgrade their teaching practices, knowledge, skills and competencies (ADEC, 2009), which can impact on student achievement and the quality of the learning environment (ADEC, 2009; NSW DET, 2009). For educational reforms to be successful, "the dimensions of quality teaching must be included, taught, trained and implemented" (Sakarneh, 2007, p.6).   In addition, lack of such policy and practices can also adversely affect teachers' professional activities, level of engagement and co-operation amongst teachers and the learning community in general.

This co-operation implies teachers working together in groups or teams to improve educational processes and outcomes. "To achieve complex objectives such as quality of education and school development requires common goals and cooperation among staff, which facilitate the co-ordination of resources and strategies of individual teachers, since no teacher can achieve such goals without at least some input from others. Furthermore, co-operation among staff creates opportunities for social and emotional support, exchange of ideas and practical advice. It can thus enhance professionalism and feelings of self-efficacy and prevent stress and *burnout*" (Rosenholtz, 1989; Clement & Vandenberghe, 2000, cited in OECD, 2009, p.15), which would impact the relationship that teachers have with students and each other resulting in improved student performance and the learning environment.

The introduction or provision of a framework of standards by which teachers can exhibit professionalism and competencies by implication should reflect the quality of teaching and quality teachers. This lack of provision or framework by which teachers can measure their accomplishments and show evidence of achievement has impacted on both how teachers are viewed by the public and how teachers see themselves within the Abu Dhabi context. Current policies and processes within the Abu Dhabi education system has impacted teaching practices and have had profound influence on teaching and learning; and these policies has had

implications on reform initiatives around teaching and teacher quality and for the system generally.

6.2   Constructivist approach in a traditional teaching and learning environment

Upon initial review the NSW model appears to be an excellent and feasible model for Abu Dhabi, as it would provide the foundation for its education reform agenda and the improvement it seeks in schools, teachers and school leadership qualities; and over-all improvement in student achievement.   In addition, the underpinning purposes of the model which focus on classroom practices, professional learning community, quality of leadership practices, teachers' attitudes and beliefs anchored to a professional development program for school improvement would provide the transformational model that the Emirate could re-contextualize and implement with minimum difficulties.

Analysis of the reported outcomes of the reviews (MOE, 2009; ADEC, 2009; NSW DET, 2009), and the existing practices and perspectives it would appear that the application of the NSW model would not be feasible. Analysis of the findings of the existing Abu Dhabi system against the structure of the NSW model indicate the following: the interconnectedness of the three dimensions and alignment of the elements to strengthen the core of the model (which is the engagement of students through quality instruction), shows that while *quality teaching is required* the viability of the model becomes questionable due to the immense differences in the systems. Based on the findings it is evident that many of the elements of the first dimension (pedagogy that promotes high levels of intellectual quality), and the central component and essential factor of the framework of the NSW model, is not yet in place or evident in the teaching workforce. If implementation takes place the model's integrity and essential elements could be compromised. In addition, there are two elements of the first dimension that could be incredibly difficult for teachers and students to master: problematic knowledge and metalanguage.

The element of problematic knowledge in which teachers expand their depth and breadth of the topic by critically discussing and analyzing ideas and knowledge is not an element that would be applicable due to the social, cultural and political context of the society. Within the society certain knowledge is learnt and accepted, never to be questioned or critically analyzed. The questioning of information or instruction is not a practice that is encouraged as religious teachings and the perspectives of ruler(s) are accepted and never questioned, so while

discussions may take place, the existing or stated knowledge is the accepted knowledge not to be challenged or queried, and to do so is to risk consequences. This social structure does not allow for critical analysis of issues where (students) citizens may have a different view of those of the rulers. The element of metalanguage which deals with instruction that integrate aspects of language and requires teachers to strategically select moments to engage with students about different facets of the language; thus building or achieving high-metalanguage will be difficult to realize. This aspect of the element will be difficult on many levels: conceptually and language acquisition and proficiency, as evidenced in the English and Arabic language proficiency of teachers and students.

To apply this element and for it to be effective, teachers foremost must be grounded and well versed in the language to be able to discriminate, separate and select certain aspects for enhancement. Based on the language review data, it appears that the majority of Abu Dhabi teachers are missing this level of grounding, and are considered below acceptable standards for teaching i.e. using the language as a medium of instruction (ADEC, 2009, UAEU, 2009). Although the majority of teachers are from Arab countries, many speak different dialects to that of the Emiratis resulting in pockets of deficiencies in language acquisition and proficiency skills across the system. The advancement of this element will require extensive professional development of teachers in general language proficiency, which could take some time to achieve the required competency level. It is evident from the analysis of the existing situation in Abu Dhabi that the most challenging component of the model to apply would be the second dimension of the model, quality learning environment (pedagogy that establishes a high learning environment). The elements of this dimension requires teachers not only to engage with students but to create a learning environment where students and teachers work productively together, it could be argued, that this is outside the reach of most of the Abu Dhabi teaching workforce.

Based on the findings of several studies teachers are in schools on average 4 hours a day and teach on average 2-4 hours per day depending on the subject (Zayed University, 2007; ECSSR, 2008). The ECSSR study shows that more than 90 percent of teachers were in favour of increased contact time and only 5 percent of the male and 2 percent of the female teachers believed that increased school hours would result in better educational outcomes (ECSSR, 2008, p.20). It also found that most teachers were not willing to give extra time after school to students in need of support with school work. In addition, there are many practices and

policies that exist that will affect the applicability of the second dimension: lack of student motivation, emphasis on grades rather than on the progress of students, Emiratization policy (government schools are exclusively for nationals, while majority of teachers are expatriates), high incidents of classroom management issues, and low expectations of students (ECSSR, 2008; ADEC, 2009). The structure and nature of the current system does not support or encourage the motivation of students.

The current system is structured around the importance of grade (marks) not the progress and achievements of the students. Within the schools it was found that teachers and school leaders felt pressured to elevate the grades of students. The ECCSR surveys obtained reports (unsubstantiated) that some foreign teachers are sometimes pressured to not fail students regardless of their poor performance, which has "resulted in continuous advancement of students in grades without proper acquisition of knowledge" (ECSSR, 2008, p.22). Consequently, teachers do not see the need or importance to encourage or motivate students as their performance and achievements, it is felt, are not linked to their grades or acquisition of knowledge. Government schools are exclusively for Emiratis while the majority of the teachers are expatriates, and according to the findings of the ECSSR (2008) study the expat teachers do not feel attachment, commitment or affinity to the Emirati students (ADEC, 2008, 2009; ECSSR, 2008). In the past, expatriate children were allowed into government schools; however with the implementation of the Emiratization policy, non-national children were no longer allowed to attend government schools. This resulted in the expat teachers having to send their children to private schools, which according to the (ADEC, 2009; ECSSR, 2008) surveys has impacted on both the teachers' financial stability and job commitment.

One of the consequences of this policy is an increase in teachers providing tutoring services to their failing students to make additional income (ADEC, 2009; ECSSR, 2008). This single practice as had the most severe ramification on the standard of teaching across the system, resulting in decrease in the quality of teaching and learning, as quality instruction in schools have become secondary to the source of income. This dissatisfaction of teachers is evident in how they interact and engage with students as evident in the ECSSR (2008) survey, ADEC, 2008, 2009 and ADEC, On-line parent Survey, 2010. This detachment of teachers from students is apparent in the interaction between them in the classroom and the school environment in general. This is evident in the lack of mutual respect and the number of incidents of classroom management issues. The views of teachers are that high expectation is

not warranted, as Emirati students who are of wealthy families will have everything regardless of academic performance (ECSSR, 2008).

This policy of separation of Emiratis from other students and cultures has also highlighted the issue of wealth and the increased intolerance for other cultures. Based on anecdotal evidence and the supported by the results of the ECSSR (2008) study, the views of teachers are that students do not respect expatriate teachers (especially teachers from other Arabic countries) as students tend to see them as from lower socio-economic classes. The teachers in turn see the students as spoiled and disinterested in learning and education as a whole, which has resulted in negative classroom behaviours and environment (ECSSR, 2008; ADEC, 2010). The results of several surveys indicate that the majority of Emiratis females both those currently in the profession and those entering the profession are only willing to teach primary grades due to perceived behavioural issues with the higher grades. The report states, "very bright and enthusiastic young women are being prepared to be excellent teachers in schools. However, a majority of them do not want to teach boys in grade 6 and above because of personal safety issues…if this trend continues, only girls' schools in the UAE would benefit from the new talent and boys who enroll in grades 6-12 will lag behind since their current teachers are not fully qualified" (ECSSR, 2008, p.30).

These challenges, the survey concluded, were further compounded by the lack of role models in the national schools for Emirati students, especially males. There have been several researches focusing on boys' underachievement in the UAE system, and many have linked the phenomenon with the low number of Emirati males in the teaching profession. The ECSSR report (2008) found that there was a distinct lack of interest among local Emirati men in the teaching profession. Currently all effort to increase the number of males into the teaching profession have been unsuccessful and those that are recruited are usually assigned to school leadership positions. For the most part this is due to an increase (surge) of household wealth over the last 30 years, and males often have more attractive and lucrative options such as police, military or family business.

Given these realities, it is obvious that the UAE will remain reliant on foreign male teachers for a long time and therefore will need to address this reality before a reform model can be implemented. In an attempt to address some of the issues and improve quality and standards, the ADEC has outlined plans to improve its current system by implementing a new model of

education that would provide learners with the flexibility to choose pathways, bring the current system in line with international norms and best practice while ensuring alignment with the Emirate's goals such as Emiratization.   One of the new strategies to improve standards in the recruitment of teachers was to decrease recruitment of teachers from Arab countries, and increase recruitment of teachers from developed English speaking countries.

A plan was initiated for the recruitment of 650 teachers for the academic years 2010-2011 to teach subjects such as English, mathematics and science in the primary grades (ADEC, 2009). This strategy resulted in the termination of 1,400 Arab expatriate teachers in June 2011(ADEC, 2011; http://www.edarabia.com/22810, 2011). The new teachers were to be recruited internationally and from developed English speaking countries such as Canada, UK, Australia, New Zealand, USA and South Africa. This plan was viewed by policy makers and education officials as one of the best options for improving education and progress on implementing a quality model (ADEC, 2009; ADEC, 2010).

According to the director general, this was done to raise the standards of the school system and to nationalize the education system. He stated, "what we are doing is in favour of the education standards we want to set in the emirate….redundancies were because teachers did not have the correct qualifications-with some not having as much as a bachelor's degree in teaching" (http://www.edarabia.com/22810, 2011). He further added, that male expat teachers in cycle1 (grades 1-5) boys schools were being replaced by female Emirati teachers; and that this had come about as a result of the Emiratization programme, and because a lot of female Emirati students were graduating from education programmes at federal universities and the numbers will increase in the future". He further elaborated, "We need to nationalize the education system and open opportunities for our daughters" (http://www.edarabia.com/22810, 2011).

Evidence does exist which shows the advantage that students and schools have by working with certified rather than uncertified teachers, especially those certified teachers who have passed a licensure or certification examination (Wiseman, 2006; Wiseman, & Al-Bakr, 2013). So, although alignment with international standards for teaching was being viewed as a way to improve teacher quality, and the under lying reason for this strategy it failed to achieve the desired outcome. The impact of this strategy on the education system was one of instability and uncertainty, and the creation of an environment of mistrust amongst teachers, expats and Emirati alike, which resulted in the rejection of the internationally recruited teachers (The

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National, 2011; http://www.edarabia.com/22810, 2011). [76] The Emirati teachers did not feel they needed mentoring, nor did they feel they needed professional development, or that the new teachers teaching strategies were better than what they were using. The expat teachers (mostly Arabs) refuse to accept the new teachers because their presence represents possible termination and they were seen as favoured by the administration, and with better remuneration packages (ADEC, 2011).

In addition, the implementation of this strategy also had disruptive consequences due to changes in the remuneration packages offered to the newly recruited teachers and which varied from those of teachers in the system. This resulted in a wide range of remuneration packages for teachers with some being paid little (these were primarily expat Arab teachers) and others receiving very high salary and allowances (newly recruited, certified expat teachers). The awareness of these differences by the teaching work force made it difficult to have harmonization amongst the teaching staff and effective and collegial environment within the schools (ADEC, 2010; National, 2011; www.edarabia.com/22810, 2011). This increased dissatisfaction amongst the teaching workforce combined with both language and cultural difficulties, the internationally trained teachers' experiences have created more instability and dysfunction in the system. High levels of dissatisfaction and dysfunction is evident in reports of increase in students' misbehaviours (no respect for the internationally trained teachers, some teachers reported being spat at, students not following instructions, and refusal to do class work) and a continued lack of students' performance, has continued to impact on students performance and pass grade being reduced (ECSSR, 2008; The National, 2011). The ECSSR also found that "72 percent of teachers feel that behavioural problems of students are the major cause of low quality of education" (ECSSR, 2008, p.19).

6.3   How is quality teaching described in the NSW model?

Quality within the NSW context is not only measured in terms of student learning outcomes but with "indicators of teacher quality in terms of expertise in relevant subject content studies coupled with skills in teaching and learning (pedagogy)" (Watson, 2005, p.vi). The NSW model of quality teaching is designed on two key significant principles; first, pedagogy does not occur in isolation from the rest of school life. In particular, "that the nature of the curriculum with which teachers work has serious impact on not just what kind of outcomes student obtain"(Teese, 2000, p.3; Teese, & Polesel, 2003 cited in Ladwig and King, 2003) but on their engagement in the learning process and the learning environment. Second, the

organizational practices schools employ to group students (Lamb & Fullarton, 2002 cited in Ladwig, & King, 2003), relates to the way in which they "differentiate and stratify learning opportunities for students" (Ladwig, & King, 2003, p.3).

The importance of these principles is that both the curriculum and the school practices are elements of teaching and assessment practices, which are key elements of quality and effective pedagogy and standards. The fundamental aspect of the NSW model is its architecture, which is constructed on a professional development framework and is grounded in aspects of classroom practices that are known to be linked to the improvement of student outcomes. Essential to the NSW model's effectiveness is the intellectual quality dimension "which is central to the pedagogy that produces high quality student learning outcomes" (NSW DET, 2003, p. 8). It "builds from a recognition that high quality student outcomes result if learning is focused on intellectual work that is challenging, centered on significant concepts and ideas, and requires substantial cognitive and academic engagement with deep knowledge" (NSW DET, 2003, p.10). It further emphasize that "in order to develop these characteristics in classroom and assessment practices, it is important for teachers themselves to have a deep understanding of the knowledge they are addressing with students, and to seek that depth in the work of their students" (NSW DET, 2003, p.10). The intellectual quality dimension of the model would be difficult for the current teaching work force in Abu Dhabi, as they would struggle with the conceptual aspects of the required tasks.

Due to the complexity of the various elements of the model and required teacher competencies these aspects and elements would not be achievable due to the low level of teacher preparation. As teachers are without the required competencies and knowledge of teaching and learning, assessment strategies and methods as found by ADEC (2009) and ECSSR, (2008) studies, and academic acumen they would find comprehension and advancement through the various levels quite difficult. Aspects of higher-order thinking and understanding of substantive concepts, it should be noted, will be difficult for teachers to convey as a result of the nature and history of teaching methodology in the region. Based on the key requirements, this dimension would not be applicable in the immediate future in the Abu Dhabi context due to the disparity in the knowledge base and academic level, and the lack of pedagogical instruction on the part of teachers and school leaders. In order for teachers to translate the NSW principles into specific classroom programs and learning activities they will need to "select and organize the essential

knowledge, understandings, skills and values from the syllabus around central concepts or ideas" (NSW DET, 2003, p.10).

According to Watson (2005), "characteristics of strong subject content knowledge and skills in teaching and learning are acquired initially through teacher preparation courses and professional development during their careers. Thus any effort to raise the standard of teacher preparation in these areas is likely to have an impact on the capacities that teachers bring to their work, and the quality of teaching in schools" (Watson. 2005, p.vii). Both of these expectations would create challenges for the teachers in Abu Dhabi to meet and translate into effective teaching practices. The transfer and applicability of a quality model based on a well defined concept of quality teaching to such a different context such as the Abu Dhabi system, will require extensive analysis of the model's invisible biases along with the unique features of the Abu Dhabi system to determine aspects of cohesive alignment in areas such as teacher and student dynamics, and socio-cultural differences and their potential impact on the interconnectedness of the dimensions and the foundation of the model.

McConaghy's studies with indigenous communities clearly show that to effectively transfer the NSW model one has to deconstruct the concepts on which the model was designed and re-construct the theoretical framework to make it relevant to the new context. "We consider that models of schooling reform need to pay more attention to teacher subjectivities, socio-spatial dynamics; the time of teaching; and the teaching of difficult knowledges. We also consider it necessary to rethink school-community dynamics and the place of quality teacher education in models that specify conditions for quality student attainment in rural schools" (McConaghy, 2002, p.9). Another importance element that can affect and contribute to student performance is the relationship between authentic instruction and authentic student achievement. This aspect was supported by Newmann and Wehlage's (1993) research on the importance of authentic instruction, in which they found a positive correlation if a strong relationship exists between the input of authentic instruction and the outcome of authentic student achievement. Newmann and Wehlage's findings combined with analysis of the supporting research of the NSW QTM emphasize the importance of this interrelationship to the effectiveness of both achieving quality and a key component of the quality model. When the analysis is applied to the Abu Dhabi context it is determined that both the standards and the elements of the dimensions are not demonstrated in the Abu Dhabi learning environment, and therefore does not allow for the advancement of this quality dimension in the educational system.

According to the NSW model, social support and engagement along with high expectations are crucial elements and key aspects of both authentic and productive pedagogy, and so if these components are omitted could severely affect the model's effectiveness. Unfortunately, these elements or characteristics do not appear to be transferable due to the social, political and cultural dynamics that currently exist in the Abu Dhabi system. To determine feasibility a new theoretical framework will have to be constructed in which each of the elements will need to be deconstructed, rethought and re-conceptualized to deal with the limitations of the model and relevance and applicability within the Abu Dhabi context.

Similarly, the third dimension which deals with pedagogy, and produces the significance element that helps to make learning more meaningful and important to students will be difficult to transfer to the Abu Dhabi context. As teachers in the Abu Dhabi system, especially expatriate teachers, would find it difficult to draw connections with students' backgrounds, identity or socio-economical realities due to the distinction of dominant culture, perceived status and legislative rights given to Emiratis. These perceptions and or realities have created barriers for teachers to effectively relate meaning and importance to students from whom they are socially and economically disconnected. The cultural knowledge is one element that teachers and students have in common but only in terms of religious practices. The engagement of teachers with students is emphasized during periods of religious observances such as the month of Ramadan and celebrations. This is an aspect within this element that would allow for easy transition; however the valuing of different cultures could be limited in its extension to others who are not of the same religion.

The element of knowledge integration especially at the primary grades is an area that while it could be challenging for the current teachers, has had some successes in at least six schools. Conceptually the integration of subject such as English, mathematics and science introduced in the model schools is only available to a limited number of students as there are only 24 model schools in the Emirate. Furthermore the majority of teacher training institutions, who are still producing subject specialists based on the old traditions, have not adopted the need for integrated areas of study. At the time of this research Zayed University remains the only institution to have a primary education teacher program in which teachers are introduced to integrated subjects and teaching practices that support integration principles. However, this program is only open to Emirati female teachers. There are no distinctions made between primary and secondary teaching and teacher qualification resulting in teachers trained for high

school teaching in primary school (grades 1-5). The qualification criteria still ask for individuals with a degree or diploma in a subject area, and not necessarily in education or qualified to teach, or to teach at the appropriate grade level.

The final element that could be difficult to transfer is inclusivity. There are no aspects (knowledge or recognition) of special needs in teachers' initial training and/or professional development. This is due primarily to teachers' lack of skills, negative attitude or low knowledge of practices on the inclusion or differentiated learning. Owing to a lack of training teachers do not have the skills or competencies to modify the curriculum for students with special needs, therefore aspects of this element would be difficult to implement and master. To be effective this strategy would require fundamental changes in the delivery of the current primary curriculum (NSW Curriculum Standards), and an adoption of a primary education policy that would deal with access, inclusion, and strategies to upgrade the training and qualification of teachers.

In addition, the successful implementation of a new model and teaching and assessment approach will require the development and implementation of policies that are aligned to both government policies and academic standards of the teaching institutions as they relate to specialized areas such as early childhood education, literacy and numeracy development, and special needs education. This will also have to extend to new knowledge requirements and criteria for special skilled individuals to support the system in general, and the specific needs of the students, in areas such as counsellors and special needs support staff, and their requirements for specialized training and certification to ensure that they have the competencies and skills to meet the required standards.

To answer the question as to the adoptability of a constructivist approach into a diverse and traditional environment it is best to frame the definition and the context in which it is being used and relevance to both teaching and learning practices. As stated in an earlier chapter, constructivist teaching is based on constructivist learning theory which has experiential learning at its core. This theoretical framework purports that learning builds upon knowledge that a student already knows; this prior knowledge is referred to as schema (Piaget, 1926; Anderson, 1977). Schema theory of learning purport a theory for understanding organized knowledge, which reflect one's own understanding of the world. The theory proposes that teachers should teach general knowledge and generic concepts, especially in cross-cultural

situations as you can build on the general foundation (knowledge). The theory contends that since prior knowledge is essential for the comprehension of new information, teachers either need to help students build the prerequisite knowledge, or remind them of what they already know before introducing new material (Piaget, 1926; Anderson, 1977).

Based on the constructivist perspective, learning is more effective when a student is actively engaged in the learning process rather than attempting to receive knowledge passively. This is often seen in methods that utilize interactive activities, guided discovery where the teacher guides and leads the student through the use of activities and questions to discover new knowledge (Davis & Boothe, cited in Lingualinks Library, web edition, 1999). There is no doubt that the foundation of the NSW model, the strength of the dimensions and their interconnectedness, provides a framework that could be used to examine and analyze Abu Dhabi students performance in relation to current understandings of what constitutes good pedagogy practices (Loughland, 2006, p.v); however, it is difficult to determine if the model is the most appropriate and relevant choice given its reliance on collaborative, supportive learning environment that does not currently exist in the Abu Dhabi context.

The evidenced based aspects of the model and its architecture which is designed around good practices makes it an appropriate model that could be beneficial for building the relationship between teachers and students, and to empower both teachers and students understanding of each other beyond their own realities. Finally the professional development aspects of the model and its link to pedagogy and student achievement would be beneficial to the Abu Dhabi education system, especially if the relationship and links between these aspects could be tracked and analyzed over a period of time.

6.4 Summary

Based on the components of the constructivist approach and the strengths of the NSW quality-teaching model, especially the interconnectedness of the dimensions and the elements, the NSW model might be the more appropriate model to introduce into a traditional system. However, given the challenges that have been highlighted, a constructivist approach, which is the main feature of the NSW model, would not be applicable at this point in time.

In essence, the key elements of the NSW model focus on teaching skills and best practices, and its direct correlation between quality teaching practices and student achievement. The

importance of authentic pedagogy and teachers' ability to reflect on their teaching and use the outcome to improve their teaching are the features that would create the most difficulties for the Abu Dhabi system in its current state. This is due to the interconnectedness of the system's challenges, which require major educational system-wide and societal changes before such a model could be successful. The underpinning purpose of the model is a framework for focusing and providing consistent messages about pedagogy, for teachers to assess and evaluate their professional practices and needs in a collegial environment, and its alignment to a professional development program for school improvement (NSW DET). This distinctiveness of the model would not be transferable, and if implemented within the current environment and climate, could threaten the model's structural integrity if certain criteria and policies are not changed, and the system suitably prepared for a new framework of quality teaching and professional standards.

According to Newmann and Wehlage (1993), "even the most innovative, creative, student-centered learning and assessment activities can be implemented in ways that undermine meaningful learning, unless they are guided by substantive, worthwhile educational ends" (p.8). To improve teaching quality and affect viable changes in student achievements, the Abu Dhabi education system will need to determine its outcomes based on a framework that will support the restructuring of its schools, and provide a structure and mechanisms for the improvement of teacher quality and students achievement, such as a framework for standards. This will be discussed and elaborated upon in the next chapter.

Chapter 7: FINDINGS AND RECOMMENDATIONS

7.   Introduction

The purpose of the study is to examine the extent to which the NSW model of quality teaching is fully applicable in a culturally and socially diverse education context such as the Abu Dhabi education system. More specifically, this thesis tries to assess the applicability of the NSW quality teacher model to determine its relevancy and appropriateness for the Abu Dhabi system in helping to addressing their issue of quality teaching and learning. To achieve appropriate contextual indicators, the thesis attempts to clarify, and create a picture and understanding of how teachers and school leaders in Abu Dhabi are practicing their day-to-day teaching and responsibilities; and then explore the extent to which they have been or could meet the criteria of quality teaching as delineated in the NSW model.

The early chapters provide an analysis of the current state of the Abu Dhabi education system in terms of leadership and teacher quality. They highlight the relevant issues and challenges and their impact on that system's ability to achieve the established goals of education, and why the systems and existing models are not performing well enough. Further analysis of educational data and indicators included that system's definition of quality, levels of education and existing qualifications criteria of teachers and school leaders. Information and statistics associated were presented to provide a clearer picture of the problems faced by the Abu Dhabi education system. An examination of the applicability of the NSW model of quality teaching to the UAE (Abu Dhabi) school context was then provided. The findings will be elaborated below.

The discussion and analysis in the previous chapter show that for information to be relevant and reflective of UAE society and culture it needs to be incorporated into the fundamental structure of the system. This would make the information not only relevant but also more significant to the social and cultural environment. Sustainability of this model or any other framework will depend on its adaptability, flexibility and its ability to integrate local knowledge, and cultural, socio-economic and political structures. On a theoretical level, the approach and philosophical framework must ensure that the basic criteria for a lasting learning experience, as dictated by both Friere and Musharif, exist and are supported by the local environment, in particular communities engaged in schooling. Theorists Friere and Musharif prescribed that for lasting learning to occur the learning must take place internally and must reflect the consciousness and

reality of the participants. This is not to minimize the value and usefulness of learning that takes place outside of immediately given environments. What it does promote is the importance of local knowledge and the relevance of the indigenous information, along with an increase in consciousness and ownership of learning within the known cultural environment.

This perspective is also clearly evidenced in the literature on comparative education which caution against international educational transfers, the borrowing of policies and practices, without considering the significance of context could have major ramifications on the receiving country. Some of these consequences could have lasting impact on national policies, social cohesion, equitable access and opportunities and above all the social, cultural, and religious identity of the population. One of the areas of focus for educational borrowing, highlighting best practices and benchmarking is active-learning pedagogy. The focus of this pedagogical reform, to shift students from a more traditional passive approach in which all knowledge is imparted from teachers and textbooks, to an active approach in which the students are responsible for their own learning, is very much supported by international organizations and educators. The extent of this innovative pedagogy on the level of student achievement and on the reform of teachers' behavior is not necessarily evident, and can face resistance in cultures where deep-rooted traditional methods of teaching and learning are the norm, and linked to the social and religious fabric of the society.

It is appropriate for a system considering restructuring such as Abu Dhabi to investigate other institutional models and to evaluate outside educational models for guidance and relevant trends to ensure the applicability and sustainability of any reform initiative. It is also important to make sure that any initiative being considered for transformation of ideas and systems is reviewed for ease of transfer and inclusion of factors that might affect the social and political context and systems. The choice of institutional model, "the differing engagement and commitment of international partners and the presence or absence of longer-term thinking about sustainability and systems of education raise issues of public policy, the contextualization and adaptation of practice and the cultural dimensions of these reforms" (Bindon, & Lane, 2011). In this case the NSW framework for quality teaching may assist with the restructuring of the education system of Abu Dhabi. It could be a valuable instrument but only if it is severely modified to meet the local environment, and then the question becomes, to what extent could the model be adapted without compromising its integrity and therefore decrease its ability to be a transformative tool?

7.1   Findings

In the course of this review and analysis it is determined that the system in the UAE is undergoing tremendous changes and at a rapid pace. The UAE is at a transitional point in education and will therefore require well-educated and trained professionals to facilitate the transformation as change occurs in the schools. According to West-Burnham, to have profound change there needs to be a re-conceptualization of how schools are to change; and to accomplish significant change the system must move away from the concept of improvement to one of transformation. Transformation, he states, implies significant change taking place to certain elements within a complex process. By focusing on transformation, certain elements can be changed and managed and thus impact the whole system.

Research has shown that there is a direct relationship between educational reform and social changes within society. In the case of the UAE, its desire to meet the competitive demands of the global market is driving its transformation and compelling the reforms being experienced in the education system. The Emirate's strategy is to develop a new model for elevating public schools' quality to international standards as a means of ensuring that the population has the competencies to compete in the global community. To ensure success and sustainability of these innovations will require an improvement in the knowledge and skills of both educational leaders and the teaching workforce, and an overall improvement in the quality of school leadership, teaching and the learning environment. A model such as the NSW Quality Teaching Model (QTM) would be a valuable framework to commence this transformation; however without re-conceptualizing the existing system and its current perceptions and practices the transferability of the model would not be feasible. The findings of the research are as follows:

1. *(a) How is quality teaching and school leadership described officially in UAE (Abu Dhabi)?*

Analysis of the UAE and Abu Dhabi system indicate that there is no systematic or structured definition of quality teaching and school leadership. While the Ministry of Education (MOE) and Abu Dhabi Education Council (ADEC) have implemented teaching standards, they are only applicable to teacher qualification criteria for employment. Neither the country nor the Emirate has a certification mechanism to verify and guarantee the qualifications of teachers and school leaders. The new MoE qualification policy deals with minimum requirements, which consist of a B.A. in a subject area and 18 hours of educational courses provided by the MoE.

ADEC has only recently instituted a policy that requires all teachers to have a bachelor's degree and teaching certification, along with other qualifications such as language proficiency in English or Arabic and prior teaching experience. Even these are mainly proxy measures of quality teaching.

In the case of the ADEC policy there are several problems with the policy when viewed in the context of the new teacher standards. There is a large number of existing teachers in the school system that are either unqualified or under-qualified to teach, since the majority were hired under the old policy. While ADEC requires teachers to have teacher certification there is currently no mechanism or program for providing educational courses or certification for either Emiratis or expatriate teachers. In the case of Emirati teachers, many of the older teachers have only a high school certificate or a diploma, and under the Emiratization policy their employment cannot be terminated nor can they be forced to upgrade their qualifications.

This new policy appears to be only relevant and applicable to new teachers entering the system. In addition, a majority of teacher education institutions in countries from which non-UAE Arab teachers are recruited do not offer a bachelor's degree in education, which could severely affect the quantity and quality of teachers recruited from the region. This policy is inadequate at best as only a limited number of Emiratis are graduating with an education degree and entering the teaching profession. This figure is even lower for males as the data shows that male Emiratis are not entering the teaching profession and those that are recruited are usually assigned to school leader positions. One of the key findings is that neither the MOE nor ADEC has a viable policy on continuous professional development (CPD), or a professional development framework for building the capacity and sustaining quality competencies, and even if this were the case, based on the current Emiratization policy only local Emiratis are eligible. The UAE has created and implemented teacher standards (qualification criteria) that are intended to be in line with international norms. However, as most teachers and school leaders are not fully qualified and are without access to quality CPD programs, the challenge of quality still remains an issue and could severely undermine any reform initiatives being implemented.

Currently neither the MOE nor ADEC has a substantial document on quality teaching. The MOE has implemented both teaching and assessment standards but specific to the qualification criteria of teachers and the planned assessment process of students. ADEC is currently developing strategies that would support and promote the concept of quality teaching. It is

intended to define, develop and implement structures based on quality in support and maintenance of a quality education system. These strategies are identified in the organization's 10 year strategic plan and deal with the following: adoption of an integrated framework for policy-setting and planning; increase in student performance to be in line with international standards; increase in access to and choice and improvement of both public and private schools; improvement in the overall performance of students and graduation rates and their preparation for higher education. These actions if fulfilled would result in students qualifying for top-tier universities, and an improvement of national and cultural engagement that would see graduates having a strong sense of national identity and engagement with culture and traditions.

Abu Dhabi's measurement of quality teaching is focusing on teachers and school leaders' competencies, specifically the setting of standards and indicators apparently to determine quality performance; an increase in the number of school days and the hours of instructions to be in line with OECD countries; standards-based curriculum; and more student-centred approaches in schools. These identified strategies are reflected in both the ADEC's strategic plan (2010) and the action plan for the installation of new teachers and school leaders. But, at base, quality is most identified using teaching standards specific to teacher qualification criteria. There is a plan to an increase the number of instruction hours. However, data collected from teachers and school leaders indicate that they are not in favour of this strategy and do not see it having any impact on the quality of education and student outcomes. On-line surveys conducted by ADEC (2010) with parents also indicate that families are not in favour of this strategy and indicate its potential impact on the family and the social structure of society.

Curriculum standards were implemented in certain subjects (English, maths, science and PHE), but due to the misalignment of the implementation plan and teachers' ability to deliver the curriculum, this strategy is now being reviewed. To further support the standards-based strategy, ADEC is seeking to improve the governance system of the schools by implementing targets, performance management, and redefining the roles and responsibilities of the various policies and entities. It should be noted that while these are planned strategies many have not been implemented due to the issues and challenges that have been identified in the previous chapters. To progress to the stage of implementing a quality teaching model to strengthen the teaching and learning practices of the teaching workforce and the performance of students, Abu Dhabi will have to resolve these issues and harmonize its policies within the realities of the existing school system and its planned goals and strategies.

1. (b) Determine if Abu Dhabi has a model, and if so, what are its principles and is it identifiable in the teachers and school leaders' actions?

Review of the information and available reports indicate that Abu Dhabi does not have a model of education. While there are published goals for the UAE (MoE), the Emirate (ADEC) does not have a clearly defined set of educational strategies to accomplish the goals. ADEC's primary goals are to improve the performance of students to be in line with OECD countries; and to improve students' English language proficiency starting at primary grades. The strategies for the improvement of students' performance are centered on an increase in the number of qualified teachers. However, this is not supported by a vision or strategies by which teachers can bring about the desired learning outcomes.

The strategy for improving language outcomes is evident in the increased number of English speaking teachers recruited from English speaking western countries. Yet recruitment is not necessarily the same nor does it guarantee quality teaching practices. As the Emirate has no model of quality teaching there is no alignment between the various policies that affect students, teachers and schools, nor integration of elements to create strong and sustainable learning environments.   There is no evidence of alignment or integration of its curriculum, assessment strategies, accountability measures, teaching materials, teachers' standards and a professional development framework which are crucial components in school reforms and the creation of quality schools.

The dilemma facing Abu Dhabi is the extent to which it can push for change within a strong and engrained traditional system. Being a traditional and conservative Muslim society it can be difficult to promote new ways of thinking that foster creativity and innovation, critical thinking and problem-solving without unbalancing the social, cultural and political structures and system, since these concepts are designed to provoke and encourage students to explore and question societal views and perspectives. It also creates a dilemma for schools as the skills that are easiest to teach and test are also the ones that are easiest to digitize, automate, and outsource (Darling-Hammond, 2012) which limits the extent to which new ideas and teaching strategies are easily accepted by the teaching workforce and policy makers.

1. (c) How are the principles and dimensions of the Abu Dhabi model exhibited in the students and the schools environment?

The current Abu Dhabi system is a combination of many systems introduced and morphed over the years and with no distinctive ownership on the part of the education leadership. As the education system was being established, and as is the case with any emerging system, the country has had to rely on foreign trained teachers who were hired to meet immediate needs and not to improve the quality of the education system.

In the case of the UAE, the data shows that the country's reliance on foreign trained teachers is enormous and fluctuates between 54 and 87 percent depending on the size of the Emirate. Abu Dhabi, being one of the largest Emirates, has approximately 54 - 63 percent foreign trained teachers in its government schools. This trend is likely to increase yearly in spite of the new Emiratization policy since the new curriculum standards, and with English being the language of instruction, will require teachers with these skills and competencies which means continued reliance on foreign trained teachers. In sum, in this policy environment, instead of teachers being recruited from Arab countries they will be recruited from English speaking countries. It should also be noted that due to this heavy reliance on foreign teachers to teach English, math and science at the higher grades, combined with the low rate of male Emiratis entering the teaching profession, this reliance is unlikely to diminish in the foreseeable future.

As ADEC currently does not have a clearly articulated model, it also has no means of measuring the targets that are being set. There is no structure under which to implement these improvements in teaching and learning methods nor the means by which to assess the effectiveness of pedagogical or school improvement reforms. Information obtained from the review reveals that one of the impacts of outdated teaching methods and irrelevant curriculum is a high student dropout rate, especially among male students. In the absence of a well-defined quality-teaching model, the system struggles to progress and achieve the desired outcomes. Students are undoubtedly impacted by low quality teaching and the use of out dated teaching methods. This is apparent in the high drop-out rates, especially among males; low admission rates to higher education instructions; and the subsequent number of bridging courses that are required to bring students to a point so that they can enter into regular degree programs.

The importance of this is that the current teachers are missing several major qualities associated with student achievement, such as content knowledge and strong academic and pedagogical

skills, which are factors identified in most quality teaching and learning models. The data indicate that the teachers do not have the required pedagogical background and competencies to effectively implement the new curriculum standards nor the new school reform strategies, which could affect ADEC plans for the improvement of students' achievement and performance. The structure of the school system, lack of teacher training programs, a simplistic certification process and the large number of unqualified and under-qualified teachers currently teaching may explain the low student achievements in subjects such as math, English and science.

1. (d) How could the operation of the Abu Dhabi potential model be identified in the interaction between the teachers and the students; and teachers and school leaders?

Should Abu Dhabi adopt and implement a quality-teaching model based on the NSW quality model, the quality elements would be identifiable in the specific model and the elements that supports the new approach to teaching and learning. The operationalization of the model would be exhibited in a systematic approach to classroom practices and the Emirate's commitment to continuous professional development for both teachers and school leaders. This would be evidenced in the adoption and application of both an approach and a guide to teaching practices that deal with the different dimensions and elements of a quality-teaching model.

The first aspect would focus on the teachers' perceptions about the integration of intellectual quality by supporting the engagement of teachers with students, both on the knowledge level and how the content is presented, and the students' ability to demonstrate learning. This would be reflected in teachers valuing students' diversity, background and knowledge base, and inclusion into the lesson demonstration, thereby addressing issues of culture, language and communication in general and specifically with a focus on the local community. The implementation of this type of model would be reflected in the increased quality of the learning environment which would be visible in teachers' use of quality reference points for checking both students' and teachers' work. This would be observable and reflected in the teachers' demonstration of exemplary work and processes that illustrate quality student performance, based on established standards and discernible in the level of engagement between students and teachers. This engagement would also provide a mechanism by which to measure shared understanding between teachers and students.

As high degree of engagement is identified by the students' level of on-task behaviours, this would indicate a high level of commitment to class work. The operation of this aspect of a model would be evident in the amount of time students spend on-task, the focus of the work assigned by teachers, and the sustained interests of students in the tasks. High engagement would be evident when students take the initiative to ask questions and actively participate in group activities. The teachers' actions and commitment would also be evidenced in their support and encouragement of students and their increased engagement and participation in group activities that promote and support collaboration and cooperation in discussion, problem-solving and solution generation.

The operationalization of the model would be evident in teachers' increased expectation that all students can learn, and that high performance is possible regardless of students' intellectual ability. This change in attitude and practices would also represent an increase in the quality of teachers' teaching practices and would be reflected in the application of higher-order thinking activities and sustained interaction between students and their peers and between students and teachers. To facilitate this level of engagement and sustained interaction requires teachers to enhance the quality of the current learning environment. A quality learning environment would be identified by criteria such as frequency of detailed information provided and examples of quality work produced in the learning environment. This would be noticeable in the display of examples of work, especially samples that illustrate high quality student performance. Such examples would provide students and teachers with a reference point for checking work and as a measurement of and standard for quality.

One of the key elements of a quality-learning environment is the level of social support for student learning. This involves continuous support and encouragement of students to try even if they fail initially. A quality learning environment also exhibits and promotes mutual respect and understanding. "Classrooms high in social support are characterized by teacher and student behaviours, comments and actions that encourage and value effort, participation, and the expression of one's views in the pursuit of learning. If disagreement or conflict occurs in the classroom, it is resolved in a constructive way for all concerned" (NSW DET, 2003, p.32). In this environment the teacher has the responsibility for setting the tone, providing a safe and respectful environment in which students feel safe to express ideas and opinions, and continuously demonstrates and maintains a mutually respectful environment. If this is not

demonstrated and maintained by teachers, then students are not likely to embrace this nor apply it to their peers or teachers.

It could be argued that this may be the most challenging aspect to apply in the Abu Dhabi system and the element that is least likely to be effective. This is due to the lack of support for a collegial learning environment and teachers' lack of support for students, students for teachers, and students for each other that currently exists in the schools. This lack of social support and lack of a respectful learning environment is demonstrated in the high rates of behavioural incidents in classrooms. In these classrooms, especially in male schools, teachers do not exhibit a sense of social responsibility and support for students, and students do not respect the teachers and their authority in the classroom.

The effective operationalization of the model depends on the level of engagement and interaction between teachers and students and how both of then interact with school leaders. The atmosphere and surroundings of a quality-learning environment are reliant on the effectiveness of the school leadership and how they promote, support and maintain an environment of mutual respect and understanding. Teachers need to know that they can rely on school leaders to support them in their efforts to develop and foster a quality-learning environment. To apply the NSW quality teaching model in the Abu Dhabi context would require the restructuring and reorientation of the existing system to allow for systemic shifts in teaching and learning practices and changes in the application of policies and practices. To facilitate the implementation of a model structured on the characteristics of quality and dimensions that focus on criteria for highly demonstrable practices would also require changes in the role of school leaders. This would therefore require an upgrading and reclassification of their skills and competencies to be aligned to international best practices.

The application of a quality teaching model, built and supported by evidence and criteria of definable characteristics of quality, will require continuous professional development learning and leadership training and support. International trends in school leadership and management are recognizing the complexity of the school environment in the 21st century and the need for school leaders to be more effectively trained to deal with these complexities, especially in the case of Abu Dhabi in a system that is struggling with both an economic development agenda and a human development agenda. The re-engagement of school leaders as a key component of the school environment and therefore a crucial part of the model's effectiveness, would

ensure that the characteristics of the quality model are integrated into all aspects of the school environment, implementation of the system's policies and processes, and engagement with the various communities that interface with the learning environment. Without this contextual shift, school leaders will not be able to lead and manage effectively within the changing dynamics of a system under continuous pressure and in a structure in need of cohesion, guidance and support.

Quality teaching and quality school leadership, if operationalized in this context, would lay the foundation and provide the necessary benchmark for quality teaching in Abu Dhabi schools as it would serve as a roadmap for achieving effective teaching practice for the teaching workforce. As school leaders are exclusively Emiratis, and this policy is unlikely to change, it is important to the model that the school leaders' structural placement and practices are interlinked to the key dimensions and elements of the model. The building of leadership capacity in schools and enhancing of school leaders' access to quality professional development would strengthen the status of the teaching profession, improve teaching practices and encourage the overall improvement of students and schools performance. Application of the model's dimensions would also be reflected in the interaction and engagement between teachers and school leaders, and school leaders' encouragement of teachers' best practices. The quality characteristics would be evidenced in the mechanisms that school leaders utilize to measure quality practices taking place in classrooms, and the type of intervention strategies available to leaders for continuous improvement of their teachers' practices resulting in improvements in the performance of students and schools.

One way of identifying the operation of the model is improved student performance, which would indicate that teachers' teaching practices have improved and that the model in its application is being effective. However, this increased performance might not be indicative of improved teaching practices if the measurement of this improvement is the measuring of learning outcomes and students' performance based solely on tests. The basis of the quality model is to extend and move beyond simplistic diagnoses of achievement levels and shortcomings. The model seeks a deeper understanding of how students' learn effectively and the practices that are required to ensure and enhance these learning strategies. The point is that if one accepts the notion that genuine learning takes place when there is connection between the three dimensions as proposed in the NSW QTM: intellectual depth, the quality learning environment and the significance of what is learnt, and when school communities

(teachers/students/school leaders) are immersed in a culture of quality practice that works towards the development and enhancement of teaching practices to promote effective learning, then it becomes apparent that the nature of learning extends beyond mere inputs and outputs of standardized information and therefore good performance on tests. In this instance, the progress of students within their capabilities would take precedence over test scores.

The research recognizes that there is significance in designing learning environments that are relevant to learners and educational outcomes and that can produce the required outputs. Based on the research that supports the NSW quality teaching model, genuine learning and quality teaching practices extend beyond mere co-operative and inquiry-based activities or teaching strategies, as learning takes place beyond classrooms, communities and families. The key finding is that the Abu Dhabi system requires a paradigm shift as teachers, students, school leaders, families, and policy makers must engage in the required transformation of the quality model to obtain optimum results. Since the model focuses on practices and not on prescriptive activities for teaching, then it requires modification based on the student population, learning environment and cultural relevance. It is important that while the core and fundamental nature of the quality model may be retained, it cannot become a set of prescribed teaching strategies, but remain a guide for the delivery of quality teaching and the enhancement of quality teaching practices for both teachers and school leaders.

Research in the field of school leadership and its effect on students' achievement indicates that there is a correlation between impact and influence that school leaders have on students through their relationship with teachers. In addition, the research shows that effective leadership can influence teachers and contribute to their effectiveness, ultimately influencing the total school environment and students' learning outcomes (Watson, 2005; Gronn, & Ribbons, 2003; Marzano, Waters, & McNulty, 2005; Kythreotis, & Pashiardis, 2006; Kythreotis, Pashiardis, & Kyriakides, 2010; Commonwealth Secretariat, 2012). As school leaders are a crucial part of the learning community their training becomes an important aspect of any quality model. Consequently, programs for educating teachers and school leaders should be aligned to the theory and principles of the model, primarily constructivist teaching practices, to ensure consistency and applicability (Huber, 2011; Dempster et al, 2011). Programs, where possible, need to be integrated and aligned to both pre-service and in-service training and to a framework of continuous professional learning to support the learning and development of both teachers and school leaders (Dempster et al, 2011; Darling Hammond et al, 2007; Ball & Cohen, 1999).

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This could include strategies to guide the development of the individual and the profession and address issues of transition, professionalism, knowledge of curriculum design and development, and tools to establish and nurture learning environments and communities.

2. (a) How is quality teaching described in the NSW model?

In the NSW quality teaching model "*quality teaching*" is described as a process that encompasses the teaching practices of teachers and the relationships between these practices and students' performance. The NSW model focuses on learning activities in a constructivist setting which is characterized by a focus on students' development, active engagement, inquiry, problem-solving, and collaboration with others to find meaning and formulate their own ideas, interpretations and conclusions. Quality teaching in this regard is described as facilitating the process by which students can engage in knowledge construction, providing and promoting positive learning environments that result in learning. This enhanced learning environment would be characterized by:

1. Learner-centred learning environment-focus on the individual learner and where teachers create and maintain an environment of mutual respect and understanding;

2. Structured and well designed learning environment-promote and facilitate group dialogue that explores an element with the purpose of leading to the creation and shared understanding of a topic, and provide opportunities for students to determine, challenge, change or add to existing beliefs and understandings through active engagement on tasks;

3. Personalized and socially supportive learning environment-promote and encourage high engagement and interaction between teachers and students and students and their peers. Use of planned and unplanned activities that foster and promote interaction and dialogue;

4. Inclusive learning environment - sensitive to individual learners and group differences and works with an educational plan that includes all learners (NSW, 2003).

These characteristics or general principles of quality educational practices provide the base for both teachers and students to recognize that knowledge is actively built-up and is adaptive to any subject orientation. It is a set of interrelated acts of teaching and learning, with a focus on interaction, growth and development. It further embraces a principle of clear communication with appropriate learner practice, reinforcement and motivation resulting in positive change in behavior-learning. This is the architecture of the NSW model and theoretical foundation, which can be summarized as grounded in constructivist pedagogy.

The NSW quality-teaching model is defined through three dimensions of pedagogy linked to improved student outcomes. To assess the relationship between authentic pedagogy and to connect it with student improvement, the three dimensions are interconnected through a matrix that articulate and define the elements of student performance and authentic pedagogy. The three dimensions: the construction of knowledge; disciplined inquiry; and value beyond the school, are interconnected as a means of strengthening the whole. So while each dimension functions on its own, they are best when supported by the other dimensions. The dimension of intellectual quality focuses on elements that support and strengthen knowledge construction, active engagement and learning. It promotes the principle of standards and the application of teaching and learning strategies.

The five standards for instruction determined by Newnann and Wehlage (1993) are higher-order thinking, depth of knowledge, connectedness to the world beyond the classroom, substantive conversation, and social support for student achievement. These standards of instruction were determined to have the most impact on students' engagement and could produce increased student achievement. The important and crucial factor in achieving quality teaching and learning is active learning; and active learning is not possible without standards for intellectual quality. It is the link between the various factors and the associated learning that determines quality teaching.

The central aspect of the model is to make explicit the nature of learning. And since the learning process is not static, it requires continuous review and adaptation of, and to, the learning environment. The learning environment recognizes that learners are at its core. A positive learning environment encourages students' active engagement and develops within the learners an understanding of their own engagement in the process of effective learning. This concept of the quality element is of an environment oriented around the centrality of learning and encourages students to become "self-regulated learners". This implies developing the "meta-cognitive skills" thereby allowing learners to monitor and evaluate their acquisition and use of knowledge (Corte, de 2010, p.35).

Quality teaching, defined by the dimensions of a positive learning environment, is sensitive to the individual differences amongst the learners and the teacher's ability to manage these differences, while at the same time ensuring that learners learn together within a shared education culture. The teacher's ability to understand the differences is an integral element of

understanding the strengths and limitations of individuals and groups as learners, as well as the motivations that shape the learning process (OECD, 2010). The learning environment is more effective when it is sensitive to individual differences and when the work or activities demand hard work within the level and capacity of the learner. Finally, quality teaching is achieved when the learning environment operates with clarity of expectations and deploys assessment strategies consistent with these expectations; and when there is strong emphasis on formative feedback to support learning (OECD, 2010).

Research indicates that assessment is also critical for learning. The nature of assessment defines the cognitive demands of the work students are asked to undertake (Darling-Hammond cited in OECD, 2010). It provides "the bridge between teaching and learning" and when it is authentic it is a powerful tool in support of learning. Within the quality framework formative assessment can play an important role when it is viewed and used as a feedback mechanism where students are provided with substantial, regular and meaningful feedback as a means of determining achievement of learning. For teachers, this knowledge is needed to understand who is learning and how to coordinate the learning process. These aspects are central to the quality model and define quality teaching within the NSW quality teaching practices.

2. (b) How could the operation of the NSW model be identified in the teachers' actions?

The operation of the NSW quality model is identified in the approach or practice used by teachers across the three dimensions. For intellectual quality, the elements would be evidenced in the level of their application. Deep knowledge would focus on the central ideas or concepts of the topic and would be evidenced when either teacher or students provide information, reasoning or argument that addresses the centrality or complexity of a key concept (NSW DET, 2003:12). The key actions in achieving deep knowledge are how the content is presented in a lesson, when teachers provide opportunities for learners to fully engage and for learners to provide information and arguments about the central concept(s) being explored during the lesson.

The operation of the model can be identified when teachers allow students to explore relationships, solve problems, construct explanations and draw conclusions in systematic or integrated ways. This will be reflected in the learning that students demonstrate in their engagement and exploration of the problems and the solutions they agree on. This element

extends to problematic areas or knowledge and relies on teachers to outline the various aspects of the problematic concepts. Teachers must allow for the exploration of all aspects relevant to the concepts with the understanding that many are socially constructed and subject to varying views and perspectives.

High-order thinking is required to achieve deep understanding of a particular concept or subject. This is evident when teachers allow students to influence information and ideas in ways that transform meaning and implications. Teachers' facilitation of this process allows students to solve problems and create new meaning and understanding as they see them. Teachers' use of metalanguage in lessons allows for the use of other text forms to address difficulties in interpretation. This further allows for clarification or discourse on how language and symbols can be used to construct texts, knowledge and power (NSW DET, 2003, p.20). Learning environments with high levels of substantive communication and sustained interaction about the substance of a lesson demonstrate the application of quality teaching. These actions further promote coherent shared understanding and encourage students to generate questions about the topic being discussed and provide the basis for further lesson exploration and development.

Explicit quality criteria can be identified by the intensity, frequency, and detailed statements teachers make about the quality of students' work and what is required of and demonstrated by students. If the model is operationalized, their actions are demonstrated in teachers' use of examples, work samples or models that illustrate high quality student performance based on the established criteria. High engagement is reflected in the level of students' engagement in activities and their active participation in-group activities. Elements of the explicit quality criteria are demonstrated in the level of expected academic goals and teaching strategies. The academic goals and teaching strategies would be clear, articulated and shared throughout classrooms and schools, and operationalized in the language and daily routines of both classrooms and schools.

Teachers' actions are reflected in their level of expectation about students' ability to achieve, and this expectation would be applied to all students and their ability to master challenging work, "whether the challenge is intellectual, physical or performance-based" (NSW DET, 2003, p.30). This expectation then permeates into the type and level of support for students' learning in the form of teachers' encouragement of all students to progress and achieve their

potential. These actions would be evident in the extent to which teachers provide a mutual and trusting learning environment and the level of support provided to students to encourage the expression of views and ideas in pursuit of their learning. Evidence of the application of the quality element is demonstrated in teachers' actions and the extent to which they provide autonomy to students to regulate their behaviour and the learning process. Teachers facilitate the process by ensuring students understand the concepts relating to self-regulation, and provide students with the opportunity to fully engage in learning activities without losing time to disciplinary and behavioural issues.

The elements' application is evidence in the extent to which students are provided the opportunity to have control over certain aspects of their learning, and level of responsibility for activities in which they engage or how they complete the activities. This action of shared responsibility and student autonomy is characteristic of a student-centred learning environment. However, students' direction or control over certain aspects such as time spent on activity and criteria for assessment may be limited depending on the subject, scope of the intellectual activity and the stage students are at in their learning process. The operationalization of the model using the element of significance is evidenced when teachers make connections between the students' knowledge and experience and the substance of the lesson. This connection between the students' real world and activities in the classroom allows students to connect their prior knowledge, cultural background and personal experience to the core aspects of the lesson.

In this environment teachers would function outside the traditional role and show that they value students' experience, background, and knowledge and are cognizant of students' ability to contribute to their own learning. Teachers' actions would be demonstrated by the inclusiveness of the learning environment and by the level to which teachers integrate cultural knowledge and knowledge of different social groups into lessons and the overall learning environment. As the learning environment is sensitive to the individual differences of learners, it is the teachers' role to facilitate and manage these differences, while at the same time ensuring that students are engaged and learning together and are using opportunities to share their differences such as background and culture. The teacher's ability to understand the differences of the students is an integral part of understanding students' strengths and limitations, and therefore the motivations that could affect their learning process.

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This interrelationship between the real world and the classroom and the traversing of these two worlds is the connectedness element of the model, and is evident when teachers acknowledge that learning has value and meaning beyond classrooms and schools. This connection is achieved when teachers connect lessons to social or human issues beyond the academic content of the lessons. In this context students are given the opportunity to explore the link between their context and the concepts being investigated, and the advancement of solutions thereby enhancing their learning and connecting their learning to the bigger world. The key aspect of the model and the elements that would identify the application of the model and teachers' actions is the level of teachers' expectation and engagement with students. In this context, teachers reframe the content of lessons and make explicit the quality criteria to ensure significance, relevance and knowledge integration. This alignment of lesson content ensures that students are included and connected to the learning activities and the learning environment, and are able to contribute in a meaningful way to their learning.

In an environment that promotes and supports quality teaching, all of the above elements and aspects would be consistently present and the practices clearly articulated, systematically implemented and demonstrated. In a quality learning environment teachers express and exhibit a great deal of commitment and positive attitude toward the students they are teaching. The environment is highly charged and supportive of learning and reflects quality criteria that are communicated regularly and demonstrated on an on-going basis. This level of support and engagement would promote and foster academic success of students and the overall school.

2. *(c)What are the dimensions of the NSW model and how can they be identified in students' actions?*

The three dimensions of the NSW model: intellectual quality, quality learning environment and significance, if implemented and present, would be evidenced in students' actions such as being actively engaged in their learning, thinking independently, and being excited about learning. The environment would reflect students who are encouraged to engage in critical thinking and problem solving activities, and are provided with opportunities to demonstrate these skills. These dimensions are strongly linked to academic achievements and high standards of pedagogy and student performance (Newmann, et. al., 1998). They are aimed at nurturing independent, critical thinking students who appreciate learning and exploring cognitively complex problems, thereby giving them skills that are relevant beyond the classroom.

The intellectual quality emphasizes pedagogy based on promoting high levels of intellectual knowledge, understanding and thinking processes. High intellectual quality is evident when students gain deep knowledge about the topic or concept, and when students are encouraged to explore and investigate new information or reasoning, thereby constructing meaning and produce knowledge. The nurturing of independent, critical thinking students would be evident when students demonstrate their grasp of the concepts and are engaged in inquiring activities to construct meaning and develop solutions. The use of teaching strategies that promote higher-order thinking encourages students to think outside standard precepts and explore non-traditional responses and solutions. When students use higher-order thinking, they may also generate unexpected concepts, ideas and products that could take the learning in new directions (NSW DET, 2003, p.18). This shift into new directions allows for more innovative, creative thinking and problem solving strategies.

The quality-learning environment focuses on teachers' commitment to students and their deep belief that all students can learn and can achieve high academic standards. This deep belief in student capacity to learn results in students being provided with opportunities to engage in challenging work, and teachers assess them in ways designed to progress them to their highest level of achievement. In a quality-learning environment students' participation and efforts on tasks/activities are supported and encouraged not just in the classroom but also across school in general. Studies show that when learning opportunities are maximized misbehaviours tend to be minimized as students are provided with an environment of mutual understanding and respect. In this type of environment students are encouraged to become self-regulators of both their behavior and their learning, and in so doing are able to regulate their own emotions and motivations during the learning process.

Central to the quality-learning environment are teachers, school leaders and learning communities and their commitment to the social nature of learning, and the provision of a positive and enriching environment where students are engaged in organized and co-operative learning activities. Students' interaction, sharing of knowledge and ideas, collaboration, negotiation and co-operation foster more effective learning as these activities would develop competencies, teamwork and problem-solving skills. This aspect or teaching strategy would promote positive engagement. Interaction and self confidence would thereby potentially change students' behaviours and support interaction, growth and development. The significance dimension emphasizes meaningful learning and the connection between what is

learnt in the classroom and the students' real lives beyond the classroom. It provides opportunities to promote discussions and inclusion of background and cultural knowledge into the learning process. Students are included into aspects of the lesson's content and the information made relevant to their lives, social and cultural groupings. This would result in students being able to integrate new knowledge from various subjects and topics and make meaningful connections to their own context.

The dimensions of the model are best illustrated in students' actions when the learning environment operates with clarity of expectations, articulated and shared teaching strategies, and reflects teachers', school leaders' and others deep belief in students' capacity to learn. When these beliefs and expectations are aligned with assessment strategies consistent with the expectations, and promotion of formative feedback to support learning, students will respond positively. The studies used to benchmark the quality teaching strategies and elements show that students respond when they are aware of the expectations, when cognitive demands are supported and when assessment is authentic and in line with educational goals (NSW DET, 2003; Newmann et al., 1998; Ladwig & King, 2003). The alignment of these elements in support of teaching and learning will ensure that the emphasis is on students and their learning. This combined with an enriching learning environment and the deep belief of teachers and school leaders will result in both students' improvement and schools achieving high academic standards.

2 (d) How could the operation of the NSW model be identified in the interaction between teachers and students, and teachers and school leaders?

The commitment to a shared quality learning environment, clear academic goals and teaching strategies, according to research, are evident when teachers and school leaders recognize and articulate the high standards that are required and expected of all students, and when these expectations are translated into actions in both classrooms and schools in general (Pashiardis, & Brauckmann, 2010; Marzano, Waters, & McNulty, 2005; NSW Department of Education and Training, 2003). These actions are encouraged and supported by professional development activities required by teachers', especially new teachers, to instruct each student to his/her capacity.

Research found that high performing schools effectively used experienced teachers to mentor new teachers, and that these teachers have the support of their school leaders and strong

professional development plans. They further found that experienced teachers play a vital role both in classrooms and schools in general, as they set the tone and culture and are role models for new teachers. Students and teachers are more likely to achieve if the activities or strategies are supported by school leaders (Southeast Center for Teaching Quality, 2002; Pashiardis, & Brauckmann, 2010; Marzano, Waters, & McNulty, 2005). In high-performing schools both teachers and school leaders articulate and promote the importance of learning communities and work as a team to accomplish the established learning goals. Collaboration amongst teachers is more effective if they engage in areas of mutual interest, and when aligned to the priorities of the school and teaching strategies to benefit students.

The successful operation of the model is identified by the interaction between teachers and school leaders, and their use of data from test results to plan for both students and school in general; and the use of information generated about students to develop teaching strategies for engaging students to their maximum capacity. This interaction is further enhanced by the articulation of teachers' and school leaders' support for professional development focusing on the goals, strategies and outcomes of school activities that support the needs of students, such as those with special needs, and those with linguistic and socio-economic challenges. This action indicates strong commitment and belief in the capacity of all students to learn at high levels and indicate clear support for teachers to be prepared to accomplish this goal (Southeast Center for Teaching Quality, 2002:15).

It is expected that in a quality-learning environment the interaction between teachers, students and school leaders would be highly visible, with all planning focused on student-centred teaching and learning strategies and activities. The teachers would have the necessary information, skills and support to address the learning needs of students, and this would also be reflected in the preparation of the teachers. In schools where the quality model is implemented, teachers are more likely to engage in activities such as team teaching and to observe each other's teaching, pointing out exemplary teaching practices that others can emulate. In this environment school leaders and teachers alike are open to co-operative and collaborative activities that support both classroom and school wide improvements.

The preparation of teachers and school leaders, and the provision and availability of information, skills and support needed to address the learning needs of students, make this model exemplary of quality teaching and learning. Teachers' understanding of students

learning needs and background knowledge provide not only desirable but necessary information to support the teaching and learning strategies. It also supports and encourages teachers to work continuously to address the learning needs of students, thus reinforcing the essential elements of the model. This approach and belief in students' ability facilitated by a process that allows students to engage effectively in the learning process is the benchmark of quality teaching, and the strength of the NSW model. Like the influence and impact quality school leaders have on teachers, students and schools, a highly qualified teacher is one of the most important factors in raising student achievement. Research shows that teacher knowledge of subject-matter is strongly associated with student learning, and in this era of high standards and high expectations, having a highly qualified teacher is crucial to the effective application of a quality model. This is the underpinning principle of the NSW model of quality teaching, identified and supported by the research that forms the basis of the model.

The model uses evidence-based research to support the notions and linkages of students learning outcomes, and their direct relationship to quality teachers and quality teaching. "Teacher quality has a greater role in explaining student achievement than many of the factors associated with either the teaching environment such as classroom resources, curriculum guidelines, and assessment practices, or broader school environment such as school culture and organization" (Darling–Hammond, 1999, p.10; National Framework for Standards for Teaching, 2005, p.15).

The uniqueness and significance of the NSW quality teaching model is that it uses this evidence as the foundation for a framework of teacher development, and connects it to the elements that teachers must apply to affect authentic pedagogy and impact student outcomes. The implication of this research and the strength of the model is that improved student learning outcomes are dependent on the quality of the teaching and the level of authentic instruction (NSW DET, 2003) combined with the support and effectiveness of school leaders. Evidence of the quality-teaching model would be reflected in the system's commitment (ministry of education, schools, school leaders and teachers) to quality pre-service preparation and continuous in-service training for both teachers and school leaders. This commitment to support activities that enhance the three dimensions would demonstrate an acknowledgement of the importance of this support in areas such as language, inclusivity and cultural background and recognizing their relevance to inclusive quality teaching and education in general.

The importance of this level of interaction between teachers, students and school leaders is their combined understanding of the distinct differences between students, how they learn, and teachers' perceptions of students' capabilities, their backgrounds, cultures, language, social orientation, supported by an enhanced professional development mechanism. The evidence indicates that teachers and school leaders are more likely to select and sustain professional development activities when they are based directly on school priorities and informed by multiple data sources about students and teachers needs. It further stresses the importance of highly effective school leaders for both the effective performance of students, teachers, and schools, which would reflect the effective application of a quality model.

These types of action indicate the importance of teachers and school leaders working cooperatively in support of students' achievements and the achievement of established learning goals, and the need for standards in both pre-service and in-service training and development of teachers and school leaders. The application of the quality-teaching model would highlight the interaction and close cooperation between teachers and school leaders, especially experienced teachers, and their role in classrooms. In this regard both experienced teachers and school leaders would commit to building on the basic pre-service teacher education program and, through an effective mentoring program, instill and develop in new teachers the required principles of educational practices, and emerging knowledge of teaching and learning.

The model also reinforces the importance of quality learning environment. Such an environment requires school leaders to be forward-looking and proactive in the changing learning environment, and the type and extent of the expectations of the learning environment and school. In this instance school leaders would focus on the educational goals and the teaching strategies required to accomplish these goals. This strategy ensures that school leaders are focusing on the continuous professional development and capacity building of teachers through classroom and instructional decision-making. Evidence of the model is reflected in high standards for students' behaviour, teachers' professional performance, and the culture and climate of the classrooms and schools. These are identified by the level of engagement and collaboration amongst learning communities and the school community (students, teachers, school leaders and parents) in their support and promotion of clear, well enforced rules of conduct for students and teachers behavior. This high level of standard ensures a stable and mutually respected environment for all students and teachers, conducive to teaching and

learning. This environment requires both teachers and school leaders to apply and pursue and exhibit their own code of conduct and professional standards.

The quality model promotes high expectations of teachers, as teachers know that school leaders are aware of, and are interested in, the quality of their classroom instruction, and their overall engagement with students and the general learning environment. The effectiveness of this strategy is that everyone at all levels is aware of the collective responsibility and shared interest in the progress of students, and the development and performance of teachers and school leaders. The operationalization of the model is evident in schools' collective responsibility for each student, and the organization's commitment of resources to the development of teachers, teaching resources, and instructional aides for the advancement of students, development of school leaders and the inclusion of parents in the learning community. Commitment to the principles of the model would be reflected in the development and implementation of policies that support the selection, support, development and deployment of teachers' expertise. The articulation of professional standards, induction and mentoring programs, especially for new teachers, and the use of peer-based learning strategies provides a progressive developmental approach to teaching and learning, enhancing the learning strategies of the school resulting in improvement of students, teachers, school leaders and schools.

3. *(a)What are the current teaching practices and perspectives in the Abu Dhabi school system?*

Analysis of the findings of the studies conducted in Abu Dhabi (ECSSR, 2008; ADEC, 2008, 2009; ADEC 2011) indicate that due to the system's heavy reliance on expatriate foreign trained teachers who are often under-qualified, and Emirati teachers who are un-qualified and who have limited access to professional development, the teaching practices are outdated, and traditional in all aspects. Classrooms are teacher-centred and lack innovative activities and teaching strategies and students are not regarded as active participants in the learning process (ECSSR, 2008; ADEC 2009; ADEC, 2010; National, 2011; www.edarabia.com/22810, 2011). In the classrooms, teachers tend to put more emphasis on learning as a structured activity. There are few if any student-oriented activities that focus on enhancing learning through inquiry or reflection. Teachers work in isolation and are engaged in very little professional development and collaboration with their colleagues (ECSSR, 2008; ADEC, 2009, Zayed University, 2008).

Learning environments in Abu Dhabi are considered non-conducive to high expectations and performance as teachers (primarily expat teachers) are considered to lack commitment to the students and the teaching profession, which has resulted in negative perceptions about students, school culture and climate (ADEC, 2009; ADEC, 2010). These perceptions have affected and impacted the level of teaching and learning and the quality of the learning environment. This has also created a cause and effect situation in the schools in which a high incidence of behavioural and disciplinary issues cause teachers to be distracted from meaningful teaching, perpetuating the negative perceptions (ECSSR, 2008; ADEC, 2009).

The classroom practices are also affected due to the high deployment to the rural regions of less educated and under-qualified teachers and school leaders. There are a large number of teachers who are considered to have met the employment requirements as holders of diplomas or post diplomas, but who are below degree status. While these teachers' qualifications are below both the old and new qualifications criteria, nevertheless due to the high number of Emiratis they are retained in the system under the Emiratization policy. The majority of these teachers are deployed in rural regions (ADEC, 2009). The impact of this practice is evident in the low level of student achievement, low performing schools, low student and teacher morale, and a lack of a coordinated plan on curriculum, instruction and assessment (ECSSR, 2008; ADEC, 2009). As both teachers and school leaders' professional qualifications and competencies are below standard this could impact the performance of students, schools and the quality of education overall.

The evidence indicates that most of the teachers and school leaders in the rural regions do not meet the previous or current minimum standards and requirements. Large rural towns also have more expatriate teachers who do not meet the new qualifications standards, with most having higher diplomas, diplomas, secondary certificates or no formal schooling. This single factor has impacted more severely on the culture and climate of the schools, and the quality of the learning environment, than any other factor. The performance of students, teachers and school leaders is lower than in all schools in urban regions. Due to the high turnover of teachers and both expatriates on work permits and nationals who retire or leave the system early, it is difficult for the system to engage in meaningful professional learning and for teachers to engage in collaborative learning activities and support 'learning communities' strategies. The effect of this is a re-enforcement of a traditionally isolated teaching environment and uninformed instructional strategies.

Abu Dhabi also has one of the youngest teaching workforces since Emiratis tend to leave the system early and expatriates are contracted for limited periods of time. On average, Emirati teachers work for only seven years compared to other countries and the region generally. Low retention rates of Emirati teachers and school leaders, especially males, is found to be related to a perspective that the education profession is not as attractive or lucrative compare to other professions or the private sector. With the majority (86.6 percent) of the Emiratis teaching workforce being below 40 years of age, this could have long-term implications for the system. Experienced teachers leaving the system could result in continuous instability in certain regions and in certain subjects. Consistency and lack of knowledge transfer could be issues. In addition, this continuous change could affect the implementation of a new model and the development aspects of the quality framework and teaching principles, especially the development of colleagues and new teachers entering the system.

The misalignment between the language policy, the implementation of the new curriculum and teachers' capacity to deliver effectively has severely impacted students, teachers, school leaders and the system generally. The conversion of the language of instruction from Arabic to English without the appropriate capacity enhancement of teachers and school leaders has caused an existing low quality of teaching to deteriorate further.   Professional competency and strong instructional practices are considered important factors in classroom practices: teachers' professional knowledge and what they bring to the classroom can make the difference in the teaching and learning that takes place. This aspect is clearly absent from the Abu Dhabi context, which could affect the integrity of the applicability of the NSW quality model and weaken the impact of its elements.

Research shows that there is a direct relationship between teachers' professional competencies, their teaching practices, and the culture and climate of the learning environment. To facilitate the level of activities required for an enhanced teaching and quality-environment, teachers need to have both knowledge (subject content knowledge and pedagogical knowledge) and related beliefs and attitudes about the nature of teaching and learning.   Without these specific professional qualifications and competencies both the classroom practices and the learning environment could be ineffective, resulting in low student achievement and low teacher job satisfaction. Under the current education system and new teacher qualification standards, there are no distinctions between primary and secondary teaching and teacher training. As many of the teachers do not have adequate pedagogical training, there is no clear understanding of the

diversity of student learning needs and differentiated teaching strategies that are required. Nor are there proactive measures for addressing these needs.

The current qualification requirements, while improved compared to the previous requirements, are below international standards and teachers have limited access to institutions providing pedagogical enhancement courses (pre-service or in-service). The evidence indicates that teachers' language proficiency, both English and Arabic, are below the minimum requirements, with less than 10 percent of the English teachers across all public schools meeting the minimum English proficiency; and only five percent of teachers of subjects taught in English (such as mathematics and science) are meeting the English competency requirements. The results are similar for Arabic subject teachers, where over 79 percent failed to reach the established competence level. It was further found that the teachers with the lowest scores were those teaching kindergarten and primary grades. With the majority of teachers scoring low in listening and reading skills, it may explain students' low performance on these two skill sets in the higher grades (ADEC, 2008, 2009). The results indicate that due to teachers being under-qualified and unqualified they might be missing many of the skills, competencies and qualities associated with quality teaching and student achievement, such as content knowledge and pedagogical skills.

In addition, the findings indicate that teachers are limited in the language of instruction required for the new curriculum standards and in the teaching skills required for teaching a standardized curriculum. This misalignment between the curriculum implementation strategy and the capacity of the teachers to teach the new curriculum, if not adjusted, could continue to cause difficulties for the teachers to engage in authentic pedagogy when they themselves are struggling with both knowledge concepts and subject comprehension. The large number of the teachers in the UAE that are not fully qualified to teach the subjects that they are currently teaching, may explain low student achievements in these subjects, and the high percent of low student achievement rates across the system. This lack of harmonization could affect the effective application of the quality model as teachers are already struggling to function within the current expectations of the system, which could increase under the new model. This disconnect that exists in the system, compounded by an increase in the level of expectations, could undermine the effectiveness of the model and weaken the connectedness of the dimensions, thereby rendering a vital part of the model unworkable.

Classroom teaching practices were found to be very structured in their approach and rarely engaged in student-oriented practices. The research indicates a consistent view within the system that there is a lack of innovative approach to teaching, and that both teachers and school leaders view the textbook as the curriculum. The evidence indicates that the majority (96 percent) of teachers in government public schools followed a traditional approach and techniques (ADEC, 2008, 2009; ECSSR, 2008; ADEC 2010); and their classrooms are teacher-centered and lack student focused activities. Teachers did not prepare for their classes, had no lesson plans and relied on textbooks as their major source of information. It was further found that they used no additional resources or learning materials to support their lessons, and designed their teaching to the content of the tests (ECSSR, 2008; ADEC, 2009, 2010; 2011). Only a limited number of teachers, primarily those in Model schools, had knowledge of, and were using ICT to enhance their teaching and learning.

This has resulted in the teachers teaching to the content of the textbooks, which then allow them to teach to the content of the tests. The ECSSR (2008) study found that more than 90 percent of both male and female teachers strongly agreed or agreed with the statement that they know the curriculum of the subjects they teach. The same number also believes that the curriculum was the same as the textbook that they were teaching. Out-dated teaching strategies and the practice of teaching to the test, which promotes a culture of memorization, were found in 96 percent of the schools. The use of outdated teaching and learning methods means that schools and classrooms are traditional in approach, teacher-centred; lacking in creativity, innovation, and quality teaching and learning strategies. Pedagogically the approaches being used are not designed or geared to the promotion of inquiry, critical thinking or reflection amongst students, which can adversely affect the level of students' achievements and performance.

Analysis of the relationship between teachers and students indicate that teachers lack knowledge of their students and their relationship is one of perceived tolerance and mutual disrespect. The results show that a combination of negative factors were operating, such as the high number of expatriate teachers, low expectations of teachers on students' performance, lack of engagement and social support, lack of outdated teaching and classroom strategies that stress individual and quiet work, and lack of teacher training in pedagogical skills. In total, teachers have very little knowledge of their students and therefore are unable to connect and relate to the needs of their students (ECSSR, 2008; ADEC, 2009). This disconnect may be

explained by the fact that Emirati teachers and society do not perceive education as an attractive profession in general. Expatriate teachers on the other hand tend to have low expectations and low job satisfaction due to conditions of employment, and perceptions of negative opinions, attitudes and behaviours on the part of Emiratis towards them as expatriate teachers.

This disconnection is reflected in teachers' perception of their students and what is perceived as students' disrespect for teachers, especially expatriate teachers. Teachers view students, especially male students, as having major behavioural and disciplinary problems. The schools and system have no code of conduct or behavioural policies for teachers or students that would support and contribute to a positive learning environment at school level and across that system. Such a policy developed, implemented and supported by all teachers, students, parents, community and led by school leaders would enhance and strengthen the quality of the learning environment. There are concerns about the impact that students' behaviour is causing within school and across the system, such as female teachers refusing to work in the higher grades and only wanting to work in the lower grades (kindergarten and primary). Similarly, the majority of teachers do not support or see the need to extend support to students beyond class time. Even though the teachers want more capacity building training, they are also concerned about the heavy workload and are reluctant to spend extra hours in schools.

Research results gained from studies conducted by the ECSSR and Zayed University found that there was a lack of commitment by teachers to their students and a lack of support by students and parents. They also found that the attitudes and beliefs of the teachers towards their students were mostly negative and were interfering with their expectations of students' academic achievement and the students' ability to learn. The expatriate teachers view teaching as a job. They felt they had heavy workloads and very low salaries with not much access to either teacher training or professional development opportunities. They also felt that parents have little or no interest in their children's educational achievements or progress and tended not to value education in general. Teachers' perception of their job, especially expatriate teachers, has affected their teaching, their interaction with students, their collaboration with colleagues and school leaders, and their overall engagement with school communities. This dissatisfaction with the education system and their working conditions might have been transferred to their relationship with their students; and is reflected in their lack of engagement and connection with the students, impacting on students' overall performance.

Quality learning environments are reflective of the level at which teachers are attuned to the learners' motivations. This requires teachers to have a clear understanding of how the students' emotional and cognitive development and processes are entwined, and their effect and impact on student learning. This aspect is not evident in the current Abu Dhabi education system as teachers are neither trained, nor exposed to these dimensions of quality education. This is further relevant as teachers have limited access to continuous professional development which could support both the sharing of expertise, best practices and principles of teaching and learning, and teaching strategies and approaches using technology amongst the teaching community. The learning environment in the schools is considered to be of a minimal standard as neither teachers' nor school leaders appear to recognize the role of an enriching learning environment and its importance in the learning experiences of students. In addition, there is no evidence that there is an alignment of students' assessment strategy to the overall learning expectations and learning outcomes and the overall development of the learners.

The analysis of the existing situation in Abu Dhabi shows that a quality learning environment especially in terms of pedagogy is an issue and a challenge for the system. The existing culture does not allow for or provide teachers with opportunities to engage with students in a positive manner, nor to create a learning environment where students and teachers work productively together. Based on the available data, teachers are in schools on average 4 hours a day and teach on average 2-4 hours depending on the subject area. There appears to be no coordinated, articulated academic goals nor teaching strategies that are shared by all involved in the learning process of students (teachers, school leaders, students and parents). There is no evidence of coordinated plans that promote high academic achievement on the part of students or well-defined learning expectations for all students. There is evidence that there is misalignment between the teachers' capacity and the established academic measures and outcomes, and the role of the school leadership in the advancement of quality learning environments is vague and uncertain.

Quality learning environments, identified by criteria such as frequency of detailed information and examples of quality work, are not evident. As classrooms are teacher-centred and the focus is on the teachers and their instruction of students, there is little encouragement of students to be actively engaged in activities or to extend themselves. The teachers themselves have limited opportunities to develop an understanding of their activities as learners within the learning environment. With the classroom being teacher-centred the focus is on individual students

copying and memorizing the content of the lesson, and little interaction and co-operative learning, which as research shows can decrease the effectiveness of learning. Due to an accepted culture of progressing students regardless of performance, there appears to be little demonstration of social support for students' learning. The teachers' view tends to be that students will be given a pass mark regardless of their achievements and level of knowledge acquisition.

High quality learning environments, a primary element in quality teaching, would exhibit and promote an environment of mutual respect and understanding. In this type of environment teachers have the responsibility for setting the tone of the classrooms and providing a safe and respectful environment in which students can feel safe to express ideas and opinions. This would also see teachers continuously demonstrate and maintain an environment where both teachers and students exhibit mutual respect.

It is evident from the findings (Zayed University, 2007 & 2009; ECSSR, 2008; Ridge, 2008 & 2010) that this type of learning environment does not exist in the current system. Due to the high level of intolerance within the schools and the system the teachers' actions are often seen as one of contempt for their students producing and maintaining an environment that lacks a 'sense of social responsibility' for students. The students, specifically males and especially those in the higher grades, do not respect the teachers and their authority in the classroom. Hence, most of the teachers' time is spent on administrative tasks dealing with disciplinary issues rather than on teaching activities (ADEC, 2007 & 2009; ECCSR, 2008). Based on the findings, the learning environment in the current Abu Dhabi system does not appear to operate consistently with clarity of expectations, and does not appear to deploy assessment strategies that are consistent with the established expectations across the system. There is little evidence of a strong emphasis on formative feedback to support learning within the system. The focus of lessons geared toward the completion of tests and the basis for the learners is the acquisition of marks whether the learners have achieved the marks or not.

Assessment strategies are not viewed as critical to or for learning. The focus is not on the cognitive demands of the work the students have undertaken but on the placement and the assignment of marks. This is evident in the requirement of all students regardless of age to sit numerous tests and for large periods of time. Students' performance is not seen or used as a tool to support learning and meaningful feedback is seldom provided to students as a means of

encouraging and supporting learning, nor for teachers to understand which student is learning and how to organize the learning process. There are difficulties in applying the explicit quality criteria within the Abu Dhabi context, especially teachers' evaluation of students. The potential flaw or imperfection in the structure is the definition and application of visible and invisible pedagogies, and the criteria used by each method. According to Ladwig and King (2003), in evaluating students visible pedagogy employs clear criteria that are standardized, while invisible pedagogy uses multiple, diffuse and imprecise measurements.

Understanding this aspect of the quality learning environment is fundamental to the success of the quality teaching model and brings an important aspect to the forefront for teaching in a diverse cultural and linguistic community. If the basic concept of the invisible pedagogy in primary schools is considered to be "play", "which socializes the child while he explores and allows the teacher to evaluate his development", then children from different cultures and languages would be disadvantaged if the teacher is unaware or unfamiliar with the child's social environment. Finally, the data and resulting analysis provide no evidence of mechanisms within the Abu Dhabi system that support standardized approaches that align formative assessment practices with improved or successful student learning and the integration of these approaches into classroom practices (ADEC, 2007; ADEC, 2008; 2009).

Structured practices not only dominate the Abu Dhabi system, but owing to its cultural background and pedagogical traditions it also suffers from a lack of substantive learning due to its low student/teacher contact time (ADEC, 2009; OECD, 2008). The school system has the least number of school days of developed countries and the least number of direct contact hours with students, which at 142 days is the shortest (ADEC, 2009; OECD, 2003). The Emirate also has the shortest school day, which is estimated to be 4-5 hours per day compared with up to 8 hours in most OECD countries. The average teaching time (yearly instructional hours) is 746 hours, which is considered extremely low compared to the OECD average, especially for higher grades (ADEC, 2009; Abu Dhabi, 2009; OECD, 2008).

Evidence does exist that for substantive learning and enhanced time on tasks and activities to take place students and teachers need to spend longer time in schools engaging in learning activities. These evidence combined with low student attendance rates, connects the underperformance of students in the government education system to the propensity of bridging programs at all universities (ADEC, 2009; HOHE, 2009). In these programs a large

number of students deemed to have passed high school are retrained to enter universities (Zayed University, 2009; UAE University, 2009; Ministry of Higher Education & Scientific Research, 2010; NAPO, 2010). If teachers are sufficiently trained and qualified to teach, and spend more instructional hours with students, along with an increase in the number of school days, such bridging programs might not be needed.

Lack of an articulated, coordinated quality teaching model and professional development framework has impacted and affected the teaching practices as teachers and school leaders do not feel supported or recognized for their contributions and expertise. The system does not have mechanisms for supporting newly recruited teachers or school leaders, and there is no evidence of a mentoring or induction program for foreign trained or national teachers (ECSSR, 2008; ADEC, 2009; NSW Department of Education and Training, 2009). There is no alignment between the existing teachers' education programs and ADEC's or the ministry of education curriculum policies to ensure teacher development in areas such as: working with new English learners, working with parents and families and the use of various assessment strategies. As the system does not support a collaborative learning environment the mentoring of teachers across subjects and grades could prove quite difficult.

The current practice supports a limited number of professional development activities and when provided, only extends to Emiratis. The result of this strategy and lapse in policy has implications for the system as teachers and school leaders are not provided with opportunities to upgrade their teaching practices, knowledge, skills and competencies, impacting on student achievement and the quality learning environment. Lack of such policy and practices can also adversely affect teachers' professional activities, level of engagement, and co-operation amongst teachers and the learning community in general. This lack of co-operation and collaboration could result in teachers and school leaders engaging in independent professional development activities that are not based or aligned directly to school priorities and the needs of their students. It therefore means that learning communities are not using their expertise and available data on students to improve their professional practices and adjustment of subject content, or the improvement of the knowledge and performance of the students.

Current teaching practices do not articulate a role for school leaders on either a leadership or instructional level (NSW DET, 2009). There is no evidence of a clear vision of the role of

school leaders in the management and leadership of the schools. As the current school leaders lack the required competencies and capabilities, they tend to be ineffective in the management and performance of their schools. The evidence indicates that the majority of the current school leaders are under-performing and do not exhibit the required competencies and level of sound practices (NSW DET, 2009; ADEC 2009). This lack of vision, understanding and approaches to quality teaching and learning, and robust strategies for everyday school management has impacted on their ability to guide and support teachers' teaching strategies, to engage with and support a strong collaborative learning community, to establish well-defined learning expectation, and align academic measures to the achievement of high standards of both students' and teachers.

The complexity of these structural and policy issues, existing teaching practices, and lack of mechanisms to address these issues have adversely impacted the system and have created learning environments that are of negligible quality, resulting in diminished meaningful learning, low academic achievement of students, and poor overall quality of the education system.

3. (b) How are teaching practices reflected in the classrooms?

Due to the system's reliance on foreign trained and new Emirati graduate teachers, the transient nature of the teaching workforce and the lack of a mentoring or induction program, there is no consistent teaching model or practices. The pedagogical approach of the teachers is not connected to a larger whole-school plan, and so each teacher adapts and applies the methods that are known to them, or what they are comfortable with.

The system's utilization of unqualified and under-qualified teachers combined with new graduates means they may have weak subject knowledge and limited pedagogical skills since teachers enter the system with minimum qualification (ECSSR, 2008, Ridge, 2008, 2009; ADEC 2008, 2009). They lack access to sustained professional development activities. Teachers are not prepared to teach in ways that support a new language of instruction, such as English to new language learners. This is reflected in the number of teachers in the system who do not meet the minimum qualification requirements or have the relevant pedagogical skills or experience; and the number of teachers who do not meet the minimum language efficiency required for instruction.

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The combination of these factors has resulted in poor relationships between teachers and students, poor knowledge construct, poor instructional practices, and low student achievement. A high turn-over of the teaching workforce (expatriate and nationals) has made it difficult for teachers to have genuine engagement with students, to engage in meaningful teaching and to engage in collaborative professional learning. This tends to re-enforce traditional teaching strategies and classroom practices, making it easier for teachers to deliver information, but fails to inspire the students or enhance the learning environment. High turnover of teachers provides little commitment to improve the school culture or climate, and to engage in whole school activity such as the planning of school curriculum across grade levels to promote continuity.

Current practices are reflected in teachers' perception of their students and students disrespect for the teachers, especially expatriate teachers (ECSSR, 2008; ADEC, 2009). Due to what is perceived as a disconnect between teachers and students, teachers tended to focus on the basics and the delivery of the minimum activities. Teachers' low expectations and general low support of student learning is shown in their approach to teaching and learning, and their reliance on the textbook and students' memorization of the work (ECSSR, 2008; Zayed University, 2008). The ECSSR (2008) study found that teachers demonstrated an unwillingness to extend support to students beyond the allocated class time, viewing this as increased workload. Teaching practices are dominated by structured activities that include review of previous lessons, homework review and checking of exercise books. Teaching practices rarely include student-oriented practices and activities such as small group work, student reflection, analysis and problem-solving activities.

The key findings of both the ECSSR (2008) and ADEC (2009) studies were that most classrooms were devoid of exhibition or display of examples of quality work. The key characteristics of a quality-learning environment as proposed in the QTM and supported by research evidence are not reflected in approach, learning strategies or learning materials. Classrooms were found to be predominantly teacher-centred and were lacking of activities to actively engage students (ADEC, 2009; Zayed University, 2008). This is further evident in the teachers' lack of awareness of different assessment strategies that could be used to measure students progress. The use of outdated teaching methods, lack of consistency in teaching approaches, and the under-qualification of teachers are reflected in the lack of engagement of teachers with students, high number of student in the arts stream rather than the science stream, lack of performance on the part of students, high number of students requiring bridging

programs prior to entering higher education institutions, and the high truancy and dropout rates, especially amongst boys (ECSSR, 2008; Ridge, 2008, 2009; ADEC, 2008).

Lack of a professional development framework, continuous pedagogical skills development and personal attributes has supported low expectations of teachers. This has resulted in decreasing quality of classrooms instruction, lack of support for improving poor performing teachers, and a lack of responsibility for developing teachers' knowledge and skills. The consequence of these actions is the lack of mechanisms or processes to build common values among teachers and drive school's plans for quality teaching and learning.

3. (c) How are the students' actions reflected in the classroom?

Students' actions are reflected in their approach to learning, which is focused on structured activities and memorization directly linked to the content of the tests (ADEC, 2009; ECSSR, 2008; Ridge, 2009; Zayed, 2008). Analysis of the findings of these research reports indicate that students are not being provided with activities that encourage critical thinking or problem solving skills, and are consistently subjected to tests designed around ticking of boxes. Similarly, field observations and anecdotal evidence affirms the finds of the research that teachers, especially expatriate teachers, tended to have very low expectations of their students. It could be argued that as the teachers expectations of students' achievements are low, so too are the students of themselves, where they deliver what the teachers expect, which is very little. This self fullfilling prophecy is then replicated over and over amongst the Emirati students, especially boys (Ridge, 2009, ADEC, 2009, ECSSR, 2008).

The Emirati students are also aware that marks are irrelevant to learning or advancement through the grades, and for entrance to higher education institutions and overall success in the society, so effort is minimal. Due to the focus on grades that are not necessarily aligned to the students' actual performance and progress students are often missing the knowledge required for higher and more challenging thinking. As a result, a high number of students are taking arts courses that are considered less demanding and are more suited to the format of the assessment instruments. Students are found generally to be performing at least two grades below regional and international counterparts, especially in English, maths and sciences, with high behavioural problems especially in the case of boys, and in the higher grades, high dropout and repetition rates (ACER, 2007; ADEC, 2009; Ridge, 2009).

These actions are further reflected in the increased number of bridging programs at the universities with focus on content knowledge instruction in English, maths and sciences, usually starting at a grade 8 or 9 equivalent (Zayed University, 2009; UAE University, 2009; Ministry of Higher Education & Scientific Research, 2010; ECSSR, 2008; NAPO, 2010). It was found however that even with increases in instructions for an addition of 2-3 years, students' still had a high failure rates in these subjects. Low students' performance is further reflected in national tests, and while the country does not have national standardized tests the results does measure the students' results across the emirates.

The data also confirms the low performance of students in the region on international standardized test such as TIMMS where a test of grade 8 students assessed in maths and science saw none of the students from the MENA region reaching the average scale (Wiseman, Al-bakr, 2013; Chapman, & Miric, 2009; Barber, Mourshed, Whelan, 2007; Bindon, & Lane, 2010; Maroun, Samman, 2008; Pollock, 2007). Anecdotal evidence and professional field observation indicate that due to the wealth of the countries, Emirati education is often not seen as a priority or is considered to have low value, as there is relatively little benefit associated with economic advancement and achievement in the society. This perception and the realities of the social and economic advancement of Emiratis regardless of the attainment of education and level of achievement have reinforced students' disinterest and indifference to learning. [88] It was also found that teachers and school leaders were often reticent to fully engage students, learning communities and parents in the teaching and learning process which has also contributed to this indifference and could serve to undermine the delivery of quality education.

3. (d) What are the interactions between the teachers and the students?

There is a high level of disengagement between teachers and students; teachers have low expectations of students and students are not encouraged or supported to engage in high level of learning activities. There is high level of behavioural problems, especially in the case of boys and a high dropout rate due to boredom or repetition rates, which often demoralized the students as they feel that they are not achieving or advancing, and while their friends have moved to the next grade they are back with younger students. Consequently, the boys dropout and enroll in lucrative professions that require no education such as the police or military (ECSSR, 2009; Ridge, 2008 & 2009). It should be noted that on entry they receive far higher wages than do experienced teachers in the teaching profession.

Both teachers and students tend to be complacent and acceptance of the status quo - teachers have low expectations of students, and students have low expectations of themselves. With no well-defined learning expectations for students and schools having no standards for students' academic performance, the interaction between teachers and students tend to be very low. The results of the teachers and parents surveys (ECSSR, 2008, ADEC, 2009, ADEC, 2010) indicate that communication between teachers and parents, and parents and schools were limited, and there were little or no active engagement with parents in support of student learning. According to Chapman & Miric, 2009 "In most Gulf countries…parental involvement in government schools is limited to teacher-parent councils. Such involvement is more pronounced in private schools, which often view this as one of the main keys to their success" (Al-Sulayti, 1999 cited in Chapman & Miric, 2009, p. 338). The point could be made that due to high job dissatisfaction amongst teachers combined with low school culture and a climate of disrespect, teachers have received limited support from colleagues, school leaders and the system, and therefore provide limited support and encouragement to students' and their learning. With limited engagement of learning communities, school wide focus or strategies on students achievement receives no attention or priority.

3. (e) What are the interactions between the teachers and the principals?

Due to the high transient teaching workforce, the difference in nationality of teachers and school leaders, perceived role of school leaders (managers' not instructional leaders'), and Emiratis low expectations of foreign trained teachers, there is limited interaction between teachers and school leaders. As school leaders responsibilities are administrative, and they have no role as instructional leaders they rarely engage with teachers about the performance of students, curriculum and assessment planning and strategies, or the quality of instructions in the classrooms. As subject supervisors provide instructional leadership, teachers rely on them for support rather than on school leaders, which means that teachers tend to have a more positive relationship with supervisors who are often expatriates. Teachers are not encouraged or supported to engage in self evaluation or reflection on their teaching, as the only accepted assessment is conducted by the supervisor once per year, and is often based on where the teachers should be in the textbook, the number of tests and assessment preparations.

The findings indicate that school leaders, like teachers, are ill prepared to manage and lead their schools, as the majority do not have the required or relevant competencies and skills to effectively lead or manage their schools (NSW DET, 2009). They are found to be lacking in

knowledge and consistency in the application of policies and procedures due to the hiring practices established by the Emiratization policy, effectively promoting an untrusting working environment. Owing to a lack of clarity in the role, school leaders lack a sense of vision for their students' progress and their schools performance, and are not considered to be forward-looking and proactive to changing expectations. As they themselves are often not educationalists and are not trained or mentored in the role and expectations of school leaders, they are not able to provide support to the teachers or the learning community. As leaders, they are not able to direct the appropriate expertise where it is most needed as they lack knowledge in how to utilize teachers to take advantage of their capabilities.

According to Chapman & Miric, 2009, "an essential feature of principal-agent relationship is the monitoring and evaluation process which enables organizations (through supervisors) to keep track of workers (e.g. teachers). Empirical data document the importance of supervision in teacher effectiveness (Rogers et al, 2004). However, across the MENA region, it was found that lax or ineffective teacher supervision is frequently cited as a weakness of the education system" (p. 330). Constraints on more effective supervision, the authors found, include teachers' political clout, head teachers' limited supervisory skills and experience, and bureaucratic inertia (Chapman & Miric, 2009, p. 330). These findings support those that are evident in the Abu Dhabi system.

The NSW DET (2009) review of Abu Dhabi school leaders found that there was a high level of distrust in the school between teachers and schools leaders, and this was due to the perceptions that school leaders had of the teachers. School leaders who are Emiratis tended to have negative views of the teachers (who were mostly expatriates) abilities and training, and the teachers likewise tended to view the principals as lacking in skills. This mistrust has resulted is limited interactions and a strained relationship. It was found that the principals do not expect or support the professional decision-making of teachers and therefore did not provide opportunities for them to exercise any decision with their classrooms or schools. The teachers on the other hand feel that they know more that the school leaders but are not given any responsibilities, and their skills are not appreciated. In light of this strained relationship, the teachers' perception concerning students' behaviours, is that they are not supported by the school administration, and that the administration supports and condones students' bad behaviours because the school leaders and the students are of the same nationality, and the teachers are outsiders (ADEC, 2009). A lack of policy on professional engagement and

development has made it difficult for school leaders to observe the academic and assessment strategies (plans) of teachers, and for teachers to engage in regular, supportive communication with school leaders.

The interaction of teachers and school leaders is also affected by the hierarchal structure of the system which dictates levels and types of engagement and communication between teachers and school leaders. By nature the "education systems across the MENA region have tended to operate as 'steep hierarchies', which shape and control the flow of communication. In doing so, they control patterns of staff interaction and, in particular, the formation of peer networks, which operate as gatekeepers and facilitators of new ideas and practices" (Savage, 1990 cited in Chapman & Miric, 2009, p. 333).

3 (f) What are the teachers' perspectives on quality teaching in Abu Dhabi?

The teachers' perspectives on quality teaching are very much a manifestation of the socio-economic, cultural and societal challenges that exist in the current education system. According to Chapman & Miric (2009) "in its most common use, education quality refers to the extent that an education system is able to achieve the generally accepted goals of education, central to which are cognitive knowledge and skills development" (Randall, 2004 cited in Chapman & Miric, 2009, p. 314). Education systems are therefore deemed to be of higher quality when students demonstrate higher levels of learning (Chapman & Miric, 2009, p.314). From this perspective quality teaching involves activities and strategies that reflects and demonstrates high student achievement.

Based on the current teaching practices being demonstrated by teachers in the Abu Dhabi school system, quality teaching means delivering minimum criteria with minimum efforts. It is having the minimum qualification and delivering the established curriculum, teaching to the test and generating high scores on tests administered (ADEC, 2008; ADEC, 2009). This also means passing students regardless of their performance and passing students with satisfactory (inflated) marks to meet the demands of both students and school leaders alike. This results in continuous advancement of students in grades without their proper acquisition of knowledge. For the teachers, the more students they pass means a higher score on their yearly appraisals. This pressure is often exerted on expatriate teachers who need the support from the school leaders and the subject supervisor to continue their employment.

The UAE like most countries in the MENA region have more teachers relative to the number of students which has translated into lower student-teacher ratios and smaller class sizes (Chapman, & Mirc, 2009). While low class size is considered a desirable aspect in most countries and an advantage for the improvement of quality teaching, the country has failed to harness this component and has "failed to seize the advantages that lower class size is presumed to offer. Instructional practice has not improved, nor has student learning increased despite the potential of smaller class sizes to enable individualized instruction" (Chapman & Miric, 2009, p.320). The studies show that in general the teachers feel that they have the required qualification for the classes that they teach; and the majority feel that quality teaching is high in the schools (ADEC, 2009).

They also indicate that the elements that could improve quality are an increase in their remuneration e.g. salaries, and more professional development opportunities; however, they also feel that they are overworked and could not take advantage of opportunities, if they were offered outside of school hours (ECSSR, 2008). For Emirati teachers quality teaching represents a slightly different perspective. It means high passing marks for students, higher performance of students on entry admissions test to higher education institutions, less time in bridging programs, increase in salaries, and job guarantee and security (ADEC, 2009). The views of the teaching workforce is that an increase in the number of teaching hours in schools and in the school year would not affect the substantive learning and training activities undertaken in schools (ECSSR, 2009; ADEC 2009).

Teacher incentives and teacher preparation or qualifications are central issues to teachers' perspective on quality teaching. The teachers, while found to be under-qualified or suitably qualified by education officials, felt that they are in need of relevant professional development, however given their work load would not be able to take advantage of the training if offered. Teacher incentives/salary satisfaction depends heavily on the benchmarks used and if they are Emiratis or expats teachers. For expat teachers they view their salaries as low and tend to engage in other means to compensate for their low salaries such as private tutoring. The Emirati teachers on the other hand have benefited from the government's increased expenditure on education through higher incentives. However, "although the country has invested heavily in teacher salaries, it has not necessarily been in ways that lead to better instructional practices at the classroom level. In particular, salary increases have been awarded on the basis of criteria other that the quality of teaching (e.g. seniority). Consequently, the substantial investment in

salaries does not necessarily operate as an incentive to teach more effectively" (Chapman, & Miric, 2009, p. 326).

There is little evidence that the teachers' perspective on quality teaching relates to their classroom practices, or defined learning expectations and outcomes. There are essential elements or characteristics associated with quality teaching and learning such as student engagement, teachers support and encouragement of students, an enhanced learning environment, and teachers working collaboratively in a positive learning environment which are not reflected for the most part in the realities of the teachers and not in the classrooms.

3 (g) What are the principals' perspectives on quality teaching in Abu Dhabi?

Due to the role of principals in the current Abu Dhabi school system as one of administrator rather than as leaders, decision-makers and instructional leaders, their views on quality teaching relate more to teachers meeting the policy and the qualification requirement. Further analysis indicate that principals views are in line with those of the teachers whereby their performance and the performance of the schools would be linked to the number of students who pass the tests, the grades of the students, and the number of student who graduate from the school. These views are often not reflected in planning strategies to address attrition, repetition and low over-all performance results of teachers and students.

Due to the role of supervisors as both academic supervisors and instructional leaders, principals do not engage with teachers on issues of student performance or classroom instruction. The availability of professional development to enhance teachers teaching practices are viewed and supported as per the existing policy i.e. no support of professional activities for expatriate teachers. The availability of educational resources linked with instructional priorities and identified needs would not have been considered, as the focus of school leaders are on the esthetic aspects as they relate to the presentation of the school. Quality teaching, school performance, and level of learning are expected to take place in classrooms and therefore the responsibility of the subjects' supervisors.

The views of principals is that an increase in the number of teaching hours in schools and in the school year would not affect the substantive learning that takes place in the classroom or the schools (ADEC, 2009). Many of the principals feel that the duration of school hours and the school years are sufficient and are already having a negative impact on families, and the social

and cultural fabric of the society. As principals are Emiratis and they are supported and protected by the current employment policies, issues of performance are irrelevant and their competences and skills are not likely to come under scrutiny. Therefore their views, approaches, visions and strategies for high performing and quality schools are not likely to influence the implementation of reforms such as the introduction of a quality-teaching model.

4. Can a Constructivist approach such as the QTM be adapted to an environment that is grounded in a traditional approach to teaching and learning?

The UAE like many countries have sought to address the quality education imperative through innovative approaches aimed at recognizing and stressing the quality aspects of teaching and learning. In this regard and according to Gallie & Keevy (2013) teaching would be seen as a "form of public service which requires of teachers expert knowledge and specialized skills, acquired and maintained through rigorous and continuing study; it also calls for a sense or personal and corporate responsibility for the education and welfare of all pupils in their charge" (p.5).

In pursuing the purpose of a competent teaching force, the UAE has initiated steps and started the process by considering the NSW quality teaching model. At first glance the NSW model appears to have all the required characteristics and elements of an excellent quality teaching and learning framework, and therefore would be a feasible option for Abu Dhabi to address some of its challenges such as low students achievement, boys' underachievement and high dropout rates, and low teaching quality, especially as the QTM framework is structured around professional standards and professional development. This structure and its components would provide teachers with the tools and skills to focus on authentic instruction through the use high-order thinking activities, students' depth of knowledge and understanding; and ensure that activities and information conveyed to students have value and meaning both within and outside of the school environment. To facilitate the implementation of this model would require both teachers and school leaders to have a clear understanding and comprehension of the relationship between student achievement and authentic pedagogy, and have a mutual understanding of the significance of a quality framework.

This however will be a major difficulty for Abu Dhabi and why the model would not be applicable in its entity and in this context. The divide between Emirati and expatriate teachers, for example, is vast, with respective perspectives and understanding of the issues and factors

hindering the progress and effectiveness of such a model. Additionally, the lack of knowledge and skills on the part of school leaders would also affect the intended collaborative and collegial aspects of the model's dimensions. Quality instruction, while not fully determined by the teacher's background, beliefs and attitudes, plays an important role in the achievement and advancement of students, and if it is not responsive to students' needs and learning could impact the learning environment and the level of teaching and learning that takes place. The key factor in achieving quality instruction is the teachers' ability to adapt their teaching practices to the students' social and language background, grade level, and achievement level. Here it is reliant on teachers to determine the best practice and the relevant teaching strategy for the student's ability. For example, there are times when some students might benefit more from a structured, teacher-centred instruction while more complex instruction would benefit students who are progressing faster, and who would benefit from more advanced and challenging activities.

Like quality instruction, professional competence is considered a crucial factor in classroom and school practices and therefore instructional practices very much depend on what teachers bring to the classroom. Teachers' professional knowledge and actual practices are closely aligned to their preparation and the depth of their training in both content knowledge and pedagogical skills, which conversely relates to their beliefs and attitudes about the nature of teaching and learning. The research indicates that closely aligned to quality instruction and professional competences are other factors that impact on quality teaching. For instance, teachers' attitude about their professional background is influenced by type of training, certification and professional development, subject taught, and employment status (full-time or contract). In the case of the Abu Dhabi system this is a major challenge as both categories of teachers (expatriates and nationals) and school leaders vary in their professional backgrounds and level of commitment, sometimes undermining stability and the degree of and security they feel that the system is providing.

Due to the structure and organization of the current Abu Dhabi system, teachers only perform in classrooms, they are isolated from other classes, colleagues and teacher networks, and have no engagement in the wider operation of the schools. A modern view of teaching includes professional activities on the school level, such as co-operating in teams, building professional learning communities, participating in school development, and evaluating and changing working conditions (Darling-Hammond *et al.* 2005). These activities shape the

quality-learning environment at the school level, e.*g.* the school climate, ethos and culture, and thus directly and indirectly (via classroom-level processes) affect student learning.

This type and level of involvement and engagement do not exist in the current structure and system, which could severely challenge the application of a quality-teaching model grounded in a constructivist approach. The education system in Abu Dhabi is based on a traditionally structured approach where teachers' beliefs about teaching are based on knowledge transmission, and where teachers know the information and answers and impart them to students (Ridge, 2009, Chapman & Miric, 2009). Instruction is built around knowledge acquisition, facts and correct answers, and how much students learn depends on how much background knowledge they have. In this structure, effective teaching is determined by the students' performance on tests; and an effective learning environment is seen as a quiet place where students diligently memorize the content of the day's lessons and prepare for the pending tests.

The constructivist approach believes that teaching is a process of discovery and the teacher's role is to facilitate students' own inquiry. In this approach students' needs are central to the teaching and learning environment. Teachers have an understanding of students' knowledge acquisition and they facilitate the process by which students can engage in knowledge construction. Teachers engage in student-oriented practices where students learn by finding solutions to problems on their own, or work in small groups to come up with a joint solution to a problem or task. In this learning environment the main focus is on thinking and reasoning processes rather than specific curriculum content.

A constructivist approach focuses on students as active participants in the process of acquiring knowledge. Teaching practices would focus on active engagement and learning processes. Teachers emphasize and facilitate student inquiry and provide students with the opportunities and the enhanced learning environment to develop solutions to problems and to play an active role in instructional activities. Collaborative and co-operative activities and learning communities would be supported, and school leaders with a deep understanding of instructional issues and high quality instruction would be a central priority for the schools. Finally, a high level of sustained professional development for both teachers and school leaders would be in place and aligned to school priorities and student needs.

Given the existing challenges in the Abu Dhabi system, it would not be feasible to implement fully such a complex quality-teaching model like the NSW (QTM) model. The foundation of the model, i.e. the constructivist approach, could be adapted within certain parts of the system over time. However, concerted efforts need to be taken to ensure such an attempt brings about profound transformation to the quality of teaching and learning. Given the vastness of the reforms required for this model to be effectively implemented and to be an effective model for teaching principles, another option might be more relevant. This would allow Abu Dhabi some time to strengthen and correct some of its systemic and structural issues with a more long-term goal of a quality-teaching model.

7.2   Discussions and Recommendations

Based on the findings of the research and analysis of the application of the model within the Abu Dhabi context, the following suggestions are proposed as a starting point for the Abu Dhabi education system with a view of developing and enhancing their own quality framework that is reflective and relevant to their own situation and environment.

In the first instance, a starting point for Abu Dhabi Emirate might be to focus on strategies to improve the academic achievement of students by focusing on the development of a professional standards framework. The adoption of a professional standards framework would allow for a locally developed structure that would reflect and address local values and cultural context and specifics of the Abu Dhabi system and include strategies that could be effectively implemented in stages. An internally and locally developed framework would allow for clear articulation between the specifics and contextualized requirements of the country, and the principles of quality teaching and learning and characteristics of quality learning environment. These identified factors would set the foundation for desirable change.

By linking the development of school leaders and teachers to professional standards, a professional development framework designed for the improvement of quality teaching and teachers' capabilities would strengthen the competency base of the school leadership and the teaching work force. It would also promote quality standards and policies to support quality leaders and teachers through all aspects of their professional growth. It should be noted that while professional standards can address the acquisition of competences they are not suited to address broad systemic challenges, such as weaknesses in initial teachers training, and school

effectiveness (Gallie, Keevy, 2013). It is also important for policy makers to be cognizant of the limitations of professional standards and to have realistic expectations, as well as the need to see professional standards within the context of a broader set of strategies that may be employed to address systemic challenges.

To be effective as a developmental tool the standards will need to address the preparation and sustained development of teachers and school leaders and therefore will need to be based on the educational priorities, and aligned with teacher education programs. This alignment will recognize and acknowledge the importance of the relationship between academic standards and professional standards and development of the teaching force. Higher education institutions such as universities can play a big role in enhancing the awareness about curricular frameworks for each subject, and by synchronizing both the pre-service and in-service teachers' education programs within that curricular framework. This could assist in aligning the various levels in the system to strengthen the quality of teaching and learning within the Emirate.

The author's observation is that policy makers and education officials expectations might not be realistic and they might be expecting too much and too soon. Policy makers would need to be cognizant of the fact that this is a learning process to build intrinsic personal strength and empowerment, and ultimately has an extrinsic impact on the management and development of students, teachers, school leaders and the overall education system. Paulo Freire's perspective is that learning is a process of achieving enlightenment and empowerment. Learning is forging and remaking knowledge within the context of the learning environment. For purposeful transformation to occur learning must take place in an authentic, quality, and conducive learning environment where critical and liberating dialogue is central to the learning.

Based on the identified issues and challenges within the Abu Dhabi system it is concluded that the while Emirate might be willing to embrace the principles of constructivist teaching and learning approach, it would be very difficult for the current system as it is in need of both upgrading of its teaching workforce. In addition, it might want to develop and implement a framework for professional standards and professional development prior to attempting such an elaborative, comprehensive framework such as the NSW quality teaching model.

One of the key and critical elements of the NSW model is the engagement of teachers in the development of the professional standards framework and the identification of teachers'

capabilities rather than it being imposed from outside the profession. As Hayes (2006, p.14) argues that "standards for the profession should be developed primarily by teachers for teachers, though in collaborative ways with stakeholders in the education community. They should be developed within a discourse of the profession, not imposed on the profession by others". This collective of a teaching professional community does not exist in Abu Dhabi, and combined with the challenges that exist around the teaching workforce does not provide a receptive environment for this level of engagement.

The conclusion of the analysis is that a quality-teaching model based on a constructivist approach to teaching is not applicable in the current structure of the education system in Abu Dhabi. While there are aspects and elements of the model that could be beneficial to the system it is not replicable in its entirety. This is due to the complexities of the model and the overwhelming challenges that exist in the current system. It is recognized that there are aspects of the quality teaching framework that could be applied to improve teaching practices, students' achievement and the overall quality of education in Abu Dhabi, however these elements will need to be introduced slowly and over time and in conjunction with an harmonization of existing policies.

7.3   Quality teaching

There has been a move to promoting the professionalism of teachers through the development of professional standards as a mechanism or instrument to improving quality teaching and learning. A framework of standards by which 'teachers can exhibit professionalism and competencies' by extension should improve and increase the quality of teaching and teachers (Gallie, & Keevy, 2013). The research (Thrupp, 2006; Sachs, 2003; Gallie & Keevy, 2013) however, indicates that this is not necessarily the case, as it also depends on the intention or purpose of the standards and what aspect of the teachers' performance the standards are intended to measure.

There are a variety of professional standards frameworks available and are being promoted for the improvement of quality education. Australia, for example, has many variations in use across the country, however, countries are attempting to solve different challenges in their education system using the instrument of professional standards. According to Gallie & Keevey (2013:6) the purpose can be divided into four broad areas: (i) professional qualifications, (ii) profession ethics and conduct, (iii) professional development, and (iv)

professional growth and learning among teachers and school leaders. Although not examined elsewhere in this thesis, nevertheless a first step towards change in Abu Dhabi could include a similarly designed process to the NSW professional teaching standards, which might be a better fit for the Emirate as they represent explicit elements of teachers' work: their practice, knowledge, skills, understandings and professional attributes; is easily supported by a professional learning continuum (NSW Department of Education and Training), and would complement the NSW curriculum standards that have been implemented in the Emirate. But as explained above, immediate direct or whole scale implementation of a framework like the QTM would be more difficult.

A broad framework based on a consultative and participatory process would guide the Emirate and possible the country in defining the basic requirements that relates to knowledge, pedagogical skills and personal attributes that teachers and school leaders must demonstrate in order to achieve the objective of education. This type of framework would attempt to address the following:
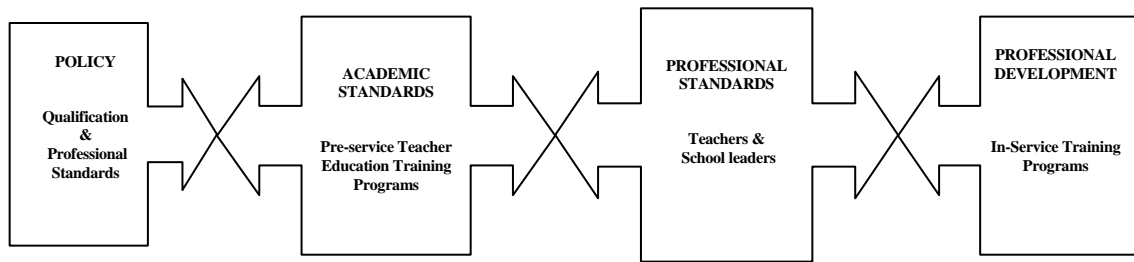
- lay the foundation for developing or renovating pre-service, in-service and continuing professional development;
- assist teachers in self-assessing their competencies, upon which they can develop their learning and training plans to consolidate their professional qualifications;
- lay the foundation for monitoring and evaluating teachers
- supporting the planning, deployment and utilization of teachers and school leaders; and
- act as the base to propose policies towards a competent teaching force (Gallie & Keevy, 2013: 5).

A framework to deal with quality teaching, curriculum enhancement, school leadership, instructional leadership and management would allow for direct and intrinsic changes to the roles of teachers and school leaders. The professional standards framework would address the characteristics of quality teachers and school leaders, quality teaching and learning and provide indicators of identifying and assessing when quality teaching is taking place, and its impact on the improvement on students and schools performance. It would further recognize the importance of teachers and school leaders, their essential role in any quality framework, and the importance of integrating a mechanism for effective preparation and sustained education and professional development. This would strengthen both their skills and competencies and create

powerful learning environments for students. A professional standards framework recognizes that individual teachers develop increased skill, knowledge and understanding at different rates, that young and relatively inexperienced teachers might exhibit mastery of complex skills or leadership capacities; and that this should be recognized independent of years of experience or age.

It further recognizes that increasing workforce mobility in teaching as in other professions will see teachers move in and out of the profession at varying stages of their lives, perhaps enhancing their skills through other work and life experiences. Not only is this format relevant to the Abu Dhabi reality, but is also possible, given the movement of its female teachers and school leaders in and out of the system. The implementation of a policy in support of professional standards would mobilize the process for continuous professional development, and development and implementation of professional standards aligned with international best practices. These policies would support and sustain mechanisms and processes for the acquisition of formal qualifications and possibly a certification process when feasible. Professional standards define the values that distinguish the profession and increase the level of professionalism, and also highlight the complexities and sophisticated nature of the teacher's tasks. They will also enable the community and public to recognize the level of knowledge and skills required to be a teacher, thereby increasing the public's perception of the teaching profession (Gallie, Keevy, 2013; Thrupp, 2006; Sachs, 2003).

The framework below provides an indicative overview of a professional standards architecture that could be used by the Abu Dhabi education system to develop its own locally contextualized professional standards. [18] The structure provides options for development and implementation, and the methodological approach presented covers a four-stage process that can be developed and implemented with minimum of disturbance to both the system and the existing teaching workforce. This design would allow for restructuring and intervention for improvement in quality without jeopardizing the socio-political and cultural policies and practices of the Emirate.

POLICY

Qualification & Professional Standards

ACADEMIC STANDARDS

Pre-service Teacher Education Training Programs

PROFESSIONAL STANDARDS

Teachers & School leaders

PROFESSIONAL DEVELOPMENT

In-Service Training Programs

This format and process aligned to the Abu Dhabi system would promote the importance of knowledge, skills and competencies through the establishment of specific policies for the recruitment and retention of both national and expatriate teachers and school leaders. It would also facilitate the training and qualification upgrading of unqualified teachers through the development and implementation of academic standards for teacher training programs, advance a commitment to quality teaching through the development of professional standards for teachers and school leaders; and facilitate the development of a professional development framework. The key strategies for improving teacher quality could be implemented in stages outside of a comprehensive quality-teaching model, and could provide a provisional or transitory structure pending resolution of some of the existing challenges within the system.

This proposed framework and strategies would provide essential enabling conditions and factors for successful implementation as it would represent and reflect the internal contextual and developmental conditions of the Abu Dhabi system, owned and controlled by Emiratis and those in the profession-both those who practice and those who supervise education. It would also enable clear consistent quality requirement and emphasize the three key goals: enhancing the professionalism of teaching, promoting and enhancing quality teaching and learning, and accrediting teacher training courses (pre-service and in-service training of teachers and school leaders).

7.3.1 Policy implications

Firstly, although professional standards must capture the combination of subject knowledge, student knowledge and contextual knowledge, the system also needs specific policies that will set the foundation and minimum standards for the profession. [21] This requires a robust policy that would identify and establish the minimum requirements for national teachers and school leaders trained in the country. It would also delineate the additional requirements that teachers or school leaders need to engage with students or manage and lead schools. As the Emirate's education system cannot function without expatriate teachers (not enough nationals are entering

the profession and expatriates tenure is limited), there needs to be specific criteria defined for foreign trained teachers, including a structured induction program. This would ensure the protection and continuance of an established quality level of teaching.

7.3.2 Academic Standards

Secondly, the introduction of academic standards would ensure that tertiary institutions respond to the expectations of professional standards by establishing professional development programs that assist in-service educators to respond to the standards. They would also ensure that teacher education (pre-service) programs are robust and meet the expectations of the system and the profession. The academic standards would describe the features of the institutions and the programs that are required for preparing individuals for quality teaching and effective leadership and school management. They would further ensure that preparation programs focus on demanding subject-area mastery during pre-service preparation, and that teachers are trained for the appropriate grade level, for example, that primary teachers have the knowledge, skills and capacity to engage with young children.

The standards would further require programs to prepare graduates with an awareness of the numerous societal problems and create an understanding of how these problems impact the classroom. This would allow for teacher training programs to be harmonized with curriculum policy, i.e. a standards driven curriculum and a focus on the development of professional teachers. Quality teachers need to have quality teacher education programs. The adoption and implementation of standards would ensure consistency across the system and a structure for future reforms and possible certification of teachers. This would be in line with similar adoption of professional standards in countries such as Australia where according to the Education Minister, (2011) "standards will drive future reform in the areas of national accreditation of teacher education programs, nationally consistent teacher registration, and the certification of highly accomplished teachers". This alignment is essential to enable harmonization between the various parts of the system ensuring that graduates have the required subject and pedagogical knowledge and skills required. This would address one of the challenges that exists in the Abu Dhabi system, i.e. teachers and school leaders without the relevant academic qualifications.

Within this structure the foundation (pre-service) education programs would seek to provide an integrated model which offers a synthesis of subject matter courses, pedagogy for teaching

subject matter, theory and foundation courses in education, and field experience or practicum. The training focus would be on key components of the profession, and the professional knowledge, practice and engagement expected of teachers. This stage could be advanced to ensure that as ADEC's policies change, teacher preparation programs can stay abreast of the changes, and assure alignment with the new requirements. For example, should ADEC decide that more focus is needed on graduates with technology or mathematics skills, the teacher preparation program would be able to deliver the appropriate programs to meet the needs of the system.

This flexibility in program delivery would address another of ADEC's concerns, which is the deterioration of the nation's cultural identity and national pride. With institutional support and commitment to academic standards in their teacher education programs, teachers and school leaders could ensure that students construct a sufficient understanding of their history and their role in society. Teachers would also be able to foster a commitment to service to the nation and the principles of social justice, thereby developing and cultivating both national pride and cultural identity.

A framework for academic standards would serve to strengthen both local and international institutions operating in the Emirate, minimizing the perceptions of decreased national pride and deterioration of cultural identity, and could create an enriching and harmonious working environment for the teaching workforce in general. The inclusion of tertiary institutions into the process would ensure a holistic approach and response to the expectation of the system and profession which would support the foundation for quality education.

7.3.3 Professional Teaching Standards

Thirdly, and the most significance aspect, is the establishment of professional standards of teaching practice for both teachers and school leaders. Teaching standards relate specifically to the competencies of persons who are responsible for teaching and learning within the school environment. The key elements of a quality professional standards framework are its structure and where it sits within the policy framework. With the development of standards for teaching, ADEC would be supporting the development of professional standards of practice, which could benefit both Emiratis and the general teaching workforce.

A competency framework could assist in addressing the issue of teacher quality, especially for expatriate teachers, without having an adverse effect on the Emiratization policy. This is significant as Emiratization policies are not administratively approved and implemented, but are approved either by Presidential or Royal Decree. This is essential as policies implemented by presidential or Royal Decrees cannot be easily changed which would have implication for the system. This developmental framework could also provide an organizing structure to promote best practices and facilitate at a national level the agreed fundamental elements and stages of effective teaching, thereby promoting international best practices without affecting the integrity of the government's policies.

7.3.3.1 Framework for Teaching Standards

The main purpose of the Standards Framework is to guide the development and defining of the basic requirements related to the knowledge, skills and attributes that teachers and school leaders should demonstrate. According to Thrupp (2006) cited in Gallie & Keevey, (2013:7) "professional standards may be generic or specific: "generic being a broad set of descriptors that teachers can aspire to or hoping to achieve, whereas specific standards are more explicit and can allow assessors to compare teachers' performance in relation to a set of descriptors".

In the case of Abu Dhabi a set of generic standards are being proposed for two reasons: (i) one of the primary challenges in the system is the level of control that is experienced by teachers and this is likely to be intensified if specific standards are introduced. Thrupp (2006:3) suggests that the "specific standards have a much greater capacity to 'control and contain teachers' by intensifying their workload resulting in few improvements in teaching quality as teachers could fabricate evidence in order to jump through hoops to meet the requirements"; (ii) The foundation of the NSW quality teaching model is a specific teacher capabilities framework which deals with professional knowledge, practice and commitment and is designed within the teaching profession and developed by teachers. This, as discussed previously, is not suitable due to the broad systemic challenges that exist in the Abu Dhabi system, such as weaknesses in initial teacher training, and school effectiveness.

The generic model illustrated below could be adapted to the Abu Dhabi context and environment. It consists of four quadrants and identified the interconnectedness and relationship between professional standards and student achievement, student development, the relationship between professional standards and the teaching context, school development and

the professional growth, and development of the teacher and his/her learning communities. Professional standards define teacher knowledge, understanding, skills, principles and values and are regarded as the best way to ensure that students are receiving a quality education (Gallie & Keevy, 2013; Commonwealth Secretariat, 2012; Sachs, 2005; Thrupp, 2006; Boston, 1999).   Standards of teaching practice:

- Describe the skills, knowledge and values that effective teachers demonstrate
- Establish expectations of what teachers should know, and be able to do
- Enhance teachers' skills and contribute to their on-going professional learning
- Enhance the certification process (Boston, 1999).

The importance of professional standards is that they provide a structure within which national benchmarking of teacher quality can evolve; and they are applicable across all levels of teachers from beginning teachers, specialized or subject specific teachers, to accomplished teachers and school leaders.   Within the Abu Dhabi context, the utilization of teaching standards would address some of the challenges that the system is currently facing and could be a valuable tool for teachers and school leaders. The benefits of professional standards:

1. Sustain achievement of the countries education goals-the standards will support and sustain quality teaching with high quality teachers.

2. Enhance professional collaboration and reporting-provide an agreed upon definition of professional teaching practices. Encourage information sharing and effective dialogue between teachers, teacher educators and school leaders.

3. Benchmarking of teacher quality-enhance reporting and provide a capacity for benchmarking on the quality of the teacher.

4. Support of teacher professional development-provide the structural foundation for the establishment of an integrated professional development framework tailored to building the professional skills and knowledge required for quality teaching practice.

Using a professional standards framework provides a concise action-oriented statement that describes the key area of a teacher's professional practice, and describes in outcome terms the key components of professional practice covered by the standard. They make explicit the underpinning knowledge and skills, professional practice described in the standard, and indicate broad areas of learning and development that teachers might consider to strengthen this aspect of their practice.   Other key values of standards are that their statements are focused on performance and are verifiable, providing a coherent framework for school leaders to use for teacher selection, promotion and performance review. This feature would allow the ADEC to effectively use the elements and indicators of the standards to validate teachers' performance and their achievement of the competencies. The foundation of professional teaching standards

is the knowledge, skills and attitudes that constitute the characteristics of effective teaching derived from research (adapted from the Caribbean Task Force for Teachers Education, 2012;Commonwealth Secretariat, 2012). These include but are not exclusive:

1. Knowledge
   - Basic concepts, tools of inquiry and structure of content area disciplines
   - How children development and learn in different contexts
   - The curriculum
   - Instructional and assessment design principles

2. Skills
   - Plan and implement developmentally appropriate learning experiences that supports the intellectual, social, emotional and physical development of students
   - Plan and implement instruction to promote students' critical thinking, problem-solving and performance skills
   - Use assessment results to evaluate and promote students' learning and modify instruction to support student progress
   - Create and promote supportive learning environment
   - Utilize effective communication

3. Attitudes/values
   - Demonstrate ability and willingness to relate to parents and others in support of student learning
   - Collaborate with others in the professional community
   - Reflect on and improve teaching competence
   - Engage in professional development activities

The generic standards listed below are categorized into four domains, however these are only being used as examples and ADEC can develop as many as suitable for the contextualized setting and relevant to the Abu Dhabi school system:

1. **Domain 1**
   Teaching & Learning (Professional knowledge)-clarifies what a teacher is expected to know and understand in order to function effectively.

2. **Domain 2**
   Student Development-clarifies what a teacher is expected to be able to do effectively in applying professional knowledge.

3. **Domain 3**

   School Development-clarifies what a teachers is expected to know and be able to do in supporting and enhancing the culture of the learning environment.

4. **Domain 4**
   Professional Relationships-clarifies the dispositions and attitudes that a teacher is expected to exhibit.

The structure of the standards framework is such that Abu Dhabi could select the key standards that are important to its specific system and relevant for the social and cultural context. Based on the uniqueness of the Abu Dhabi system there are several standards that are more relevant to the Emirate's context such as: language, literacy and numeracy development, growth and development, students' diverse needs and school vision and culture. The level of specification in the teachers' professional standards framework illustrated below is broad and over-arching in

order for Abu Dhabi to use as a guide. Given the uniqueness of the Abu Dhabi system the standards could be structured around distinct system focus and contextualized to the specific needs of the Emirate. The illustration is structured around the key identified areas and focus identified in the analysis of the available data on the Abu Dhabi system. These are areas of concerns and which the current system is experiencing the most challenges.

Teachers Professional Standards			
Teaching & Learning	**Student Development**	**School Development**	**Professional Relationships**
☞ **Curriculum (Teaching /Subject area knowledge)** *Teachers know and understand the subject they teach and its relationship to other subjects* ☞ **Language, Literacy & Numeracy Development** *Teachers know and understand the importance of language and the development of literacy and numeracy skills across all subject areas* ☞ **Teaching for Learning** *Teachers understand and use a variety of strategies that actively engage students in learning* ☞ **Learning Technologies** *Teachers understand and effectively use a variety of learning technologies to assist students to expand their learning capabilities.* ☞ **Assessment for Learning** *Teachers use a variety of strategies to assess and report on student learning*	☞ **Human Growth and Development** *Teachers understand how students learn* ☞ **Learning Environment** *Teachers create a safe, respectful environment that supports learning and achievement for all students* ☞ **Students' Diverse Needs in School** *Teachers understand and support students' diverse needs* ☞ **Students' Different Learning Experiences** *Teachers demonstrate understanding of students different learning experiences*	☞ **Communication** *Teachers effectively communicate with students, parents and the wider education community.* ☞ **School Vision & Mission, and Culture** *Teachers demonstrate a commitment to the school vision and mission, culture and values* ☞ **Home- School collaboration** *Teachers demonstrate an understanding of students family and communities*	☞ **Leaders of Learning communities** *Teachers demonstrate leadership in working with colleagues to build communities of learners in their schools.* ☞ **Professional Development** *Teachers continuously improve their professional knowledge and practice* ☞ **Professional Practice** *Teachers demonstrate ethical practices in all aspects of their work*

Each of the standards can be further described in terms of specific standards and their associated level descriptors across the following levels:

- **Initial** – for newly qualified teachers with limited experience, as well as more experienced teachers with limited professional development
- **Proficient** – for qualified teachers that are able to demonstrate professional skills and attributes
- **Distinguished** – for qualified teachers that are able to demonstrate advanced levels of professional ethics and values, leadership and well as own professional learning (Gallie & Keevy, 2013).

The associated descriptors can emphasize the standards across the different levels of proficiency.

7.3.3.2 School Leaders' Professional Standards

Like teachers the research reaffirms the importance of school leaders to the success of schools and the improvement of both students' achievement and school effectiveness. This is reflected in the McKinsey (2010) report which states that pedagogical leadership is especially important and has at least there related purposes:

- a focus by leaders on pedagogy which affects student learning
- a focus on teachers' professional learning, and
- collective action by leaders and teachers to improve the environments of their schools

Ensuring that education systems like Abu Dhabi have ample stocks of quality 'pedagogical' leaders who are committed to making a difference in teacher performance and student achievement is justification enough to make leadership development among the highest of educational reform priorities (CCEAM, 2012, p.4).

To support the Abu Dhabi Education Council's (ADEC) plans and strategies to improve the quality of school leadership and given the complexity of the NSW Quality Model it is proposed that a simplistic framework similar to the teachers' professional standards framework might be more suitable to the contextual realities of the Emirate. The design and structure of the school leaders' standards are therefore similar to the teachers, and it is expected that by the time teachers have progressed to become school leaders they would have gained valuable tools, and benefited from the strength of the teachers' professional standards. While the standards for teachers focused on what they do in the classrooms, those for school leaders' should focus on what they need to know to manage and lead their schools.

The school leadership framework illustrated below is designed around seven competencies that school leaders would need for effective management and leadership. The framework provides a quality-assured set of benchmarks against which school and individual development can be measured (CCEAM, 2012; Queensland Ministry of Education, 2009). It also provides a range of strategies that can be used to operationalized both processes of school improvement and school-level activities for personal development.

1. **Standard 1**
   Lead and manage learning and teaching in school community
     1.1   Challenging and safe learning environment
     1.2   Lead and manage the implementation of Curriculum Standards and school-developed curricula
     1.3   Promote high quality teaching, learning and assessment
     1.4   Monitor and evaluate the quality of teaching and learning programs

2. **Standard 2**
   Develop, communicate and report on the strategic vision and aims of the school community
     2.1   Lead and manage development of the school's strategic vision and aims
     2.2   Engage with management and Board of Trustees in developing, reviewing and decision making on the school's strategic vision, aims and operations
     2.3   Communicate and promote the strategic vision and aims to the school community
     2.4   Implement, monitor, review and report on the school's strategic vision and aims

3. **Standard 3**
   Lead and manage change
       3.1   Lead the school community in planning the introduction and facilitation of change
       3.2   Develop creative and flexible responses to change
       3.3   Manage emerging challenges and opportunities
       3.4   Respond to ministry of education and zones and districts reforms

4. **Standard 4**
   Lead and develop people and teams
       4.1   Model high standards or performance
       4.2   Develop, empower and support individuals and teams
       4.3   Manage individual and team performance
       4.4   Develop networks to support individuals and teams

5. **Standard 5**
   Develop and manage school-community relations
       5.1   Create positive relationships with families to enhance student learning
       5.2   Build school-community partnerships to enhance student learning
       5.3   Communicate effectively with the school community

6. **Standard 6**
   Develop and manage resources
       6.1   Allocate resources to create and maintain an effective learning environment
       6.2   Manage human resources to create and maintain an effective learning environment
       6.3   Manage financial resources to create and maintain an effective learning environment
       6.4   Manage school data and ICT resources to create and maintain an effective learning environment
       6.5   Manage facilities to create and maintain an effective learning environment

7. **Standard 7**
   Reflect on, evaluate and improve leadership and management
       7.1   Lead the evaluation of school performance
       7.2   Model a culture of personal and collegial performance improvement and life-long learning
       7.3   Contribute to learning communities and other professional networks.

The above standards framework would address the identified issues and inefficiencies that were found in the NSW Department of Education and Training (2009) report. In this analysis of school leaders capabilities it was found that while there are examples of outstanding leadership in schools, there is significant room for improvement in the leadership capabilities of the majority of school principals. The report recommends that ADEC develop and implement a set of standards for school leaders as well as set targets to improve the quality and professionalism of all principals (NSW DET, 2009:10). It is recognized and acknowledged that there are a variety of frameworks in use worldwide and many are more robust than the proposed framework, and offer new approaches to address new practices in school leadership, however given the Abu Dhabi context and the environment in which the education systems reforms are being implemented the proposed framework might be a suitable starting point. With this type of framework both the teachers and school leaders' standards would be aligned to a professional development policy and framework thereby ensuring consistency and continuity in the overall goal and principles of the framework.

7.3.3.3 Professional Development

The fourth component of the framework is a professional development mechanism and process for the advancement and enhancement of teachers and school leaders' professional and individual development. The importance of professional development and its identification as a priority for the Abu Dhabi education system resonates strongly with the current literature on the professional needs of school principals. According to Pashiardis & Brauckmann (2010), "Professional development in instructional leadership is a fundamental requirement of school principals worldwide" (p.71).

The development of a structured program for supporting the continuing professional development of teachers and school leaders can be guided by four broad principles: intensive and sustainable, focused on student learning and enhancement of teaching competencies, aligned with school mission and improvement priorities, and strengthening the collegial relationships among teachers and school leaders. These principles should inform the policy framework for establishing a support system for teachers' continuing professional development, and ensure that all professional development activities contribute to the individual's professional ladder and classification should such a structure be implemented. The goals of the professional development framework could serve to:
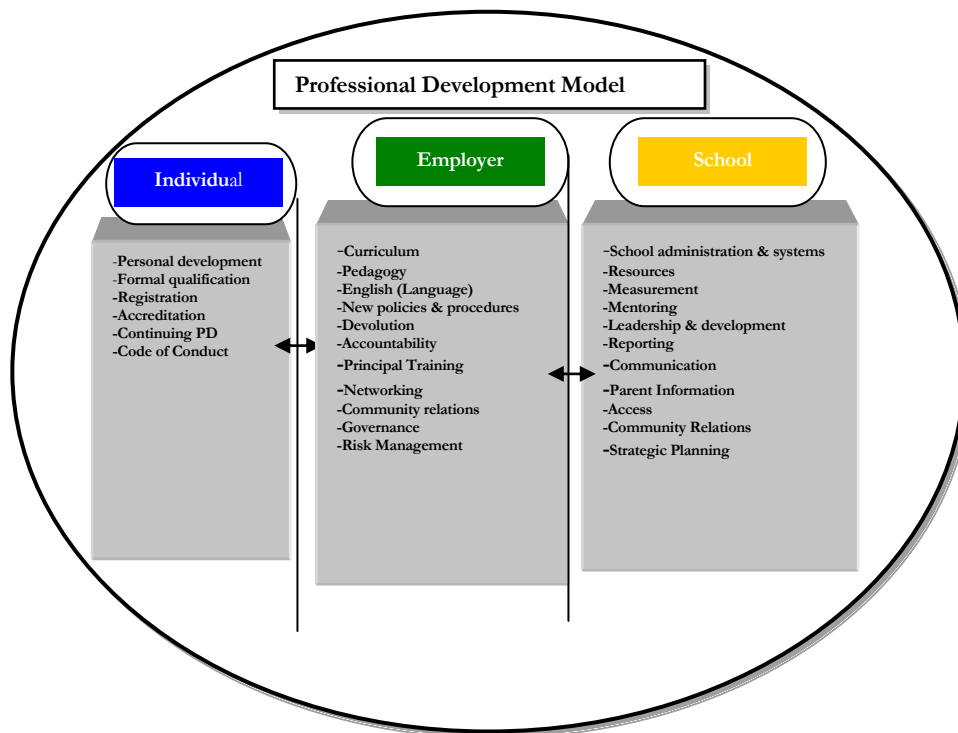
- Provide professional development programs that support and achieve the strategic mission of the Abu Dhabi Education Council
- Empower teachers and school leaders to strive for quality and excellence
- Promote effective professional development programs that promote quality teaching and improving the learning environment
- Promote and enhance national identity

To be effective professional development programs need to meet the teaching priorities of the school and needs of teachers and school leaders across the emirate (Gallie, & Keevy, 2013; Pashiardis, & Brauckmann, 2010). All professional development activities should contribute to the on-going and continuous professional development of the teaching work force. The programs and their activities should be aligned to the strategic goals identified by the ADEC and their strategies for the implementation of professional standards. A Professional development framework would promote:

1. The development of best practices
2. The application of professional standards
3. The development of learning capabilities
4. The development of competencies to meet the standards
5. The building of capacity

6. The provision and promotion of shared experiences

The overall importance of ongoing professional development within a framework of quality education and professional standards is the promotion of a cycle of learning whereby self development and professional development leads to upgrading of qualifications, and achievement of professional standards. The diagram illustrated below provides an example of an integrated PD model that could complement a teaching standards framework.

The professional development model outlined is based on a continuous developmental process and the interrelationship between the constituents and identifies their areas of responsibilities. This format could provide the basis for an initial structure for the Abu Dhabi education system as the specific leadership area has a strong focus on the improvement of quality teaching and learning. The responsibilities while defined, are not exclusive, but are interrelated and shared.

a) **Individual Component**

- Personal development
- Formal qualification
- Professional standards
  - establish expectations of what teachers should know, and be able to do
  - enhance teachers' skills and contribute to their on-going professional learning
  - enhance the certification process

Assessment of the individual's suitability for the profession of teaching should be part of teacher preparation programs, and a part of the on-going personal reflection of the individual. The proposed process for the registration/certification of teachers along with the established professional standards would outline the qualifications a teacher is expected to have and the required criteria for obtaining certification. They are intended to reflect the aspirations of the profession by describing the work of the teacher from beginning to advanced levels of exemplary practice and may provide a practical roadmap for professional development. They are important especially at the entry point into the profession and at the threshold level as they define benchmarks for improved professional practice.

b) Employer Component

The employer has the responsibility to ensure that all teachers and school leaders (newly assigned and experienced) are provided with the standards and best practices. In addition, the employer is expected to provide training focusing on the following:

- Curriculum
- Pedagogical Skills (practices)
- Emerging needs
- New policies and procedures
- Devolution of responsibility
- Accountability
- School Leadership

To build and sustain capacity a proactive plan of recruitment, education, and retention would need to be developed and aligned to the strategic plans and education reforms in the schools. Leadership education programs would need to support leaders throughout their working lives and be relevant, flexible, coherent and relevant curriculum, and focus on student achievement. Programs would need to be flexible to the needs of the population, and promote a progressive, dynamic and developmental approach. To achieve and maintain quality teaching and learning a progressive/developmental model of leadership and management education program should be developed and implemented focusing on the various stages of the devolution process. The strength of the model and its interconnectivity is that it is a dynamic process, and over time there should be a progressive shift in responsibility from the employer to the individual.

c) Schools Component

To promote schools as learning organizations, and to build capacity and encourage collaboration it is important that schools be given the responsibility for some of the professional

development activities for teachers and staff. Schools should be encouraged to conduct professional development in areas such as:

- School administration and systems
- Lesson planning
- Assessment strategies
- Induction & Mentoring
- Leadership and development

To support the structure of building a world-class education system will require introduction of a comprehensive teacher education program (pre-service and in-service). In addition to an enhanced pre-service program to ensure the teacher's preparedness for the classroom, it is essential that continuous professional development be provided and supported to all teachers, as only this strategy can ensure that teachers receive enhanced teaching skills that will promote innovation and excellence in student' performance. School leadership improvement is also an essential part of this component as the effectiveness of their role will enable the development of teachers, school effectiveness, and decision making structures at the school level which reflect their ability to coordinate through the inclusion of all stakeholders in the learning community.

According to Pashiardis & Brauckmann (2010:70) "principals are required to promote the interconnection of learning experiences in the school with practices which are followed outside the school. To this effect, principals need to build closer ties between what is happening in the school and what is happening in the outside (real) world so that learning becomes more meaningful to students; in short, principals want to learn how to make sure that the learning that takes place at the school site has relevance with the real world". This is a need that constantly appears in international reports and has been identified by ADEC as an area requiring improvement. In addition, the interviews conducted by NSW DET (2009) and ECSSR (2008) indicated that they are concerned about the low competence level of teachers and school leaders in delivering the new constructivist curriculum. This further highlights a greater need for principals to have a process by which to improve their competence in instructional leadership and related activities.

7.3.3.4 Induction Program

A comprehensive induction program would allow participation of categories of teachers deployed in the schools. The program would provide a consistent structure of orientation to the various authorities, roles and administrative structure with in the Abu Dhabi system. A

program that include schools, driven by experienced teachers and school-leaders supported by a strategy of collegial support, mentoring and professional networking would ensure alignment to whole school strategy, development of teaching practices, and strategies for student achievement. The induction or orientation would assist foreign trained expatriate teachers to understand the nature of ADEC public schools and the expected role and responsibilities of teachers in the schools. It would further provide a platform for the introduction of the quality of teaching practices that are expected, the standard of performance and expectations of students and the overall strategy, and goals of the education system and those of the schools.

7.4   Summary

This type of program designed around a quality model would allocate sufficient time for teachers to observe and identify examples of effective teaching practices, engage in professional discussions with colleagues on the elements of effective quality classroom practices, and take part in activities that demonstrate active and engaging student activities. As part of an on-going strategy for the enhancement of teachers and school leaders the program should encapsulate the essential elements of quality teaching focusing on improvement of quality teaching practices, innovative student engagement strategies, classroom management and the promotion of quality learning environment, inclusion and differentiated learning strategies, pupil development and the learning process, and the use of ICT to enhance teaching and learning.

Through a process of guided observation, teaching practice, professional dialogue and reflection, teachers can gain an understanding of the expectations of the schools and the education system in general which could progress the system relatively closer to a quality-teaching model. An effective induction program as part of a professional development framework could provide decision makers with mechanisms to initiate and support a quality framework that promotes quality teaching practices throughout the teaching workforce, and ensure that both teachers and school leaders have the necessary skills, attitudes and competencies needed for high performing quality school and high achievement of students; specific to the context of the Abu Dhabi system. The PD framework along with the standards would provide teachers and school leaders with the necessary tools and support to affect quality improvement in students' achievements.

Finally, it is important that this level of educational reform be reviewed and that future research be undertaken into the relationship between education inputs such as teacher preparation, improved teacher practices and student achievement. Research into the effectiveness of the teachers and school leaders' professional standards and their impact on student achievement would provide policymakers with the relevant evidence to determine which inputs and instructional processes increase student learning, and which can be reduced without compromising achievements. More research concerning the needs of teachers and educational leaders within a specific cultural context i.e. Abu Dhabi would be necessary in order to prepare school leaders in the best possible way. This kind of research should also be critical and evaluative in order to place existing theories under scrutiny and extract functional ideas and practices which can become operational at the individual school level (Pashiardis & Brauckmann, 2010).

While there is growing recognition of the need to assess the performance of educational systems, limited data makes it difficult to assess the performance of student achievement throughout the Gulf region. More research is therefore needed to understand how reforms affect the students experience, how students navigate the evolving education systems, how and what students learn, and whether the reforms are producing graduates who contribute to the long-term development of the region. Research and experience, according to a World Bank Report (1999) have also led to a "deeper understanding of how education contributes to economic growth, the reduction of poverty, and the good governance essential for implementing sound economic and social policies" (p. xi).

Based on the analysis of the NSW quality teaching model against the Abu Dhabi situation in terms of relevant context and applicability of the model, it is clear that the situation is highly contextualized and therefore the development, implementation and application of a model should be country specific. It is further determined that it is not feasible to apply the NSW model under the current circumstances as they exist in the Abu Dhabi education system. The model's structure and the interrelationship of the elements to achieve excellence are too complex for the existing environment to benefit from its optimum strengths. Furthermore the situation as it currently exists in the Abu Dhabi school system is far too challenging, and an attempt to implement this model could affect its integrity, as too many assumptions on which the model is based would have to be severely modified or eliminated at the onset. Also given

the Emirate's concerns about the decrease in its national pride and cultural identity, it might not be appropriate to impose an existing model on an already weakened system.

Also based on the aforementioned contextual background information and the main areas of need as expressed and described in the thesis, it might be more appropriate if the Emirate considers a structure (framework) such as identified above, that could be developed and implemented using internal knowledge, and familiarity with the local realities of the society. The development of a professional standards framework could provide a structure, in the first instance, to deal with some of the immediate restructuring issues. Upon achieving some milestones of stability, then complementary components from the NSW QTM that increase the focus on what aspects are working could be trialed to continually improve in significance and meaningful contribution to students' achievement. It would also allow Abu Dhabi to select the key quality components that are important to their specific system and that connect to previously implemented standards.

The adoption of professional standards could also provide a structure within which national benchmarking of teacher quality could evolve and make available much needed guidelines for teachers and school leaders to improve their practice and the achievement of their students and schools. Such a framework may also provide an organizing structure or instrument that could promote best practices and facilitate at a national level the agreed fundamental elements and stages of effective teaching.

Chapter 8: CONCLUSION

8.   Introduction

The concept of quality teaching and its relationship to student performance has been a major part of the debate on education quality and school improvement for decades. The issues of teacher quality and the quality of teaching and learning have dominated elements of the discussions on educational reforms and only recently have included school leaders. The debate has intensified over the last decade due to increased pressure from international organizations such as the UNESCO and the United Nations, and their agendas to improve education and the "quality" of education for all.

Educational reform and sustainability is a top priority for the federation of the United Arab Emirates as it seeks to establish itself at the forefront of educational excellence, and the building of quality education for the country and future generation. A key goal of the UAE and specifically Abu Dhabi policymakers and leaders is the restructuring and improving of the quality of education and the schools. The challenge for the Emirate is that its teaching workforce, school leaders and teachers are unqualified and under-qualified, and were found not to be sufficiently equipped with the knowledge, skills and competencies to positively impact students' achievement and the learning environment through the application of quality teaching practices. Like other countries in the Gulf the UAE main challenge "is how to raise quality school instruction and by extension, student learning" (Chapman, & Miric, 2009, p.339). To address this, the Emirate will need to employ strategies associated with several approaches that relates to improving education practice, and the application of appropriate measures to ensure effectiveness and relevance.

To facilitate the Emirate's reform agenda, the Abu Dhabi Education Council (ADEC) proposed the creation of a new education model to underpin the new strategies for improvement (ADEC, 2009). However, to do this, it needs to look beyond its boundaries and the region, as frameworks/models or effective measures of school effectiveness and teacher quality are not readily available or accessible in the region. A review of the relevant literature concludes that there has been much research conducted on teacher quality (Darling-Hammond, 1999; Rivkin, Hanushek & Kain, 2002) and some longitudinal research on the preparation of educational leaders (West-Burnham, 2002; Leithwood et al., 2004; Harold, 2006; Harold & Stephenson, 2006, 2007, 2008), however, limited studies have been conducted on these factors in

developing and emerging countries such as the Gulf or the MENA regions (Wiseman, 2006;Chapman & Miric, 2009; Ibrahim, 2010; Wiseman & Al-Bakr, 2013). Evidence does exist which (Wiseman & Al-Bakr, 2013; Wiseman, 2006; Darling-Hammond, 2002; Andersson, 2008; Levine, 2005; Day, 2001) shows "the advantage that students and schools have by working with certified rather than uncertified teachers, especially those certified teachers who have passed a licensure or certification examination" (Wiseman, 2006, p.3) and reveals important insights into the preparation and development of teachers and school leaders, together with the importance of proper qualifications and accreditation and the value that this contributes to educational professional practice.

The research also highlighted the enormous quantity of studies conducted on elements of teacher practices and teaching quality; and impact on students' performance as reflected in the NSW model on quality teaching. To ensure successful achievement and sustainability of education reforms focused on students achievement, the Abu Dhabi leadership will need to consider a model of education, specifically one that is built on, and around teaching practices, and the quality of teachers work within schools and in classrooms, grounded in theoretical and empirical platforms (NSW Department of Education and Training, 2003). This study was conducted to provide potential options for substantive educational changes to some of the challenges being faced by the Emirate; while minimizing the existing tension between the policy and the practices of the education reforms in Abu Dhabi.

This analysis endeavored to examine the extent to which the NSW model of quality teaching was transferable and applicable in a traditional, diverse cultural and social education context such as Abu Dhabi. To determine appropriate contextual indicators, it was essential to understand how quality teachers and school leaders in Abu Dhabi practiced their day to day teaching and responsibilities, and explore the extent to which they apply and achieve the NSW model's dimensions and criteria of quality teaching. This approach provided descriptive information and data on the quality and competency of teachers and school leaders and provided meaningful and consequential data on their education, qualification and preparedness for embarking on this level of reform. This information was then analyzed against the NSW quality teaching model dimensions and elements to determine whether this model is applicable in the Abu Dhabi context; and could be used as a framework for assessing quality teaching and learning, and provide evidence for quality standards that show that improvement in students' learning outcomes is achievable with effective quality teaching practices.

The strength of the NSW QTM model is its development, design, structure (architecture) and theoretical groundings. It is designed to address the parameters of quality pedagogy which relates to both teacher quality and educational leadership; two aspects that are crucial to the enhancement of quality of teaching and learning, and the improvement of schools in general. Analysis of the model's dimensions and elements and their relationship to students' performance compared with the existing factors in the Abu Dhabi system, indicate that there are many challenges in the existing system that could impede the implementation and progress of this type of model. It is therefore concluded that the proposed model is too complex in its design and structure for a deep-rooted traditional system with a range of social and cultural challenges.

It is recognized that Abu Dhabi policymakers and education officials want and support a restructuring of its schools and improvement in the quality of education and its teaching workforce. Despite the fact teachers generally tend to be well paid compared to other sectors and that student-teacher ratios are good, student achievement is still comparatively low. It is unlikely that simply increasing the resources will yield the desired results as the allocation of resources is not done strategically. ADEC is trying to determine which model would bring about the required transformation and achieve the required outcomes, along with the accompanying knowledge and concerns that the traditional approaches have so far been insufficient in attaining the desired goals (ADEC, 2009). A system structured for learning, by its nature focuses on long term learning process and the development of a higher order cognitive development of education such as those based on the constructivist approach to teaching and learning.

The final analysis is that while the QTM model is designed and structured to achieve the targeted outcomes and mechanisms, and could be accessed to support the innovative strategies and activities that support the components of the system, it is not feasible to do so without major compromises to some of the key principles and practices. Given the Emirate's general concerns about the impact of external factors on its society and national pride and cultural identity, it is further determined that a more appropriate approach might be for the emirate to develop and implement a framework using internal knowledge and familiarity with the local reality to address the immediate issue of teaching quality. This framework could be in the form of a professional standards framework, which could provide a structure for benchmarking of

teacher quality, and the selection of key standards that are important to the improvement of teachers and school leaders' practices, and the achievement of their students and schools.

The development of a new paradigm and a new approach to change, along with a comprehensible definition of the role of school leaders would strengthen the restructuring initiatives, and acknowledge them as essential elements of the standards framework. It is evident that for educational reforms to be successful they must include both teachers and school leaders, and for quality teaching to take place it must take place within a grounded framework on pedagogy. This pedagogy focus needs to be on improved learning outcomes, student achievement, and teachers approach to teaching and learning practices. This could be achieved through the "development of teacher preparation programs that introduce new teaching methods to trainees that may lack the prerequisite knowledge and have very different beliefs as to what constitutes effective teaching" (Chapman & Miric, 2009, p. 339). The second, could be achieved by finding ways to better utilize the teaching force, and creating strategies that motivate teachers and establish classroom conditions that foster higher quality instructions (Chapman & Miric, 2009).

Analysis of the relationship between education inputs and student achievement in Abu Dhabi indicates that a competency framework could assist in addressing the issue of teacher quality, especially for expatriate teachers without having an adverse affect on current policies. This is significant as Emiratization policies are implemented by Presidential or Royal decree, and therefore not easily changed. Such a framework could also provide an organizing structure that would promote best practices and facilitate the agreed fundamental elements and stages of effective teaching; thereby promoting international best practices without affecting the integrity of the current government policies. The importance of professional standards is that they provide a structure within which national benchmarking of teacher quality can evolve; and they are applicable across all levels of teachers from beginning teachers, specialized or subject specific teachers, to accomplished teachers and school leaders. A professional standards framework provides a concise action-oriented statement that describes the key area of a teacher's professional practice, and describes in outcome terms the key components of professional practice covered by the standard. They make explicit the underpinning knowledge and skills professional practice described in the standard; and indicates broad areas of learning and development that teachers might consider to strengthen this aspect of their practice.

Other key values of standards are that their statements are focused on performance and are verifiable, providing a coherent framework for school leaders to use for teacher selection, promotion and performance review. This would allow for effective use of the elements and indicators of the standards to validate teachers' performance and their achievement of the competencies.

8.1   Summary

The most important strategy for capacity building and sustainability is ownership and responsibility from within. This will ensure relativity and consistency of information and make sure that transformation for change occurs from within the consciousness of the individuals and in their own reality and environment. To move beyond the diagnosis of challenges to desirable change, and to promote and support sustainable transformation, the Emirate needs to develop and implement a model of education focused on quality teaching, establish a mechanism for its own quality teaching framework starting with the teaching standards, and a framework for professional development focusing on the upgrading of its teaching workforce. This will demonstrate a deeper understanding of the interconnectedness of these elements and their relationship to quality teaching and learning.

To develop capacity and maintain sustainability the Emirate needs to design, develop and implement its own educational strategy for the preparation and pedagogical development of its national teachers and school leaders. Given its reliance on foreign (expatriate) trained teachers, the educational strategy would benefit from the inclusion of an induction component to ensure the consistent and continuous development and sharing of the quality model and its key principles as they relate to quality teaching practices. This process would move the education system towards a new synthesis of school improvement, shared expectations of quality teaching, high performing schools, improved students' performance, improvement of the quality of teachers and school leaders, and ensure excellence of standards and quality of the profession in the long term.

While the initial investment in the necessary restructuring of the educational process may require longer commitment and resources to progress through the different stages, the benefits gained will advance educational developments and learning outcomes dramatically, thus further enhancing the Emirates commitment to quality teaching and improvement of the quality of education. It is recognized that doing nothing might not be an option, for the consequences of continued under-performance, low achievements, high drop-out rates of boys and a failing education system would severely affect both the country's human capital and its economic growth in the future.

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