The Contribution of the UAE School Inspection Framework as a Quality Assurance Tool for School Transformation and Performance Improvement

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مساهمة إطار معايير الرقابة والتقييم المدرسية في دولة الإمارات العربية المتحدة كأداة لضمان الجودة من أجل تحسين المدارس وتحسين الأداء

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by

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Dr. Sufian A. Forawi
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ABSTRACT

Systematic quality management, even though originally developed in the industrial sector, has become equally applicable to the educational sector. There has been an increased pressure on the educational sector to improve their standards through industry-tailored quality assurance strategies. In the United Arab Emirates (UAE), the quest for knowledge based economic development is directly in line with the need to overcome the "impulsive laziness" that accompanies natural resource endowment. There have been increasing concerns regarding the ability of national educational reforms to meet modern challenges and requirements for the current rapidly transforming global and information technology environments. The study investigates the contribution of the UAE School Inspection Framework (SIF) as a quality assurance tool for school transformation and performance improvements. The study adopts a quantitative approach to help arrive at conclusive relationships between the variables in testing key hypotheses. Data was collected using Google Forms online data collection platform and analyzed using IBM SPSS Statistic Software version 23. Findings reveal that school quality assurance metrics are good predictors of school transformation and school performance, the UAE Inspection Framework is also a significant predictor of school transformation and school performance. Among the school global transformation indicators, sustainability is the only factor that supports school performance development. Finally, a positive and moderately strong association exists between school quality assurance and the UAE Inspection framework as a quality assurance metric. It is recommended that American schools in Dubai must fine-tune global school transformation elements in line with school performance indicators so as to remain globally competitive in an increasingly globalized world.

Keywords: UAE Inspection Framework, Education Quality Assurance, School Performance Management, School Inspection

ملخـــــص

Abstract in Arabic

بالرغم من ان نظام إدارة الجودة قد تم تطويره ليتم تطبيقه في القطاع الصناعي الا انه أصبح يطبق أيضا في القطاع التعليمي وبنفس المستوى وذلك نظرا لأهميته. وقد ازداد التركيز مؤخرا على قطاع التعليم لتحسين مستوى الأداء وذلك من خلال اعتماد استراتيجيات ضمان الجودة التعليمية والتي تتناسب مع الأولويات والرؤية العالمية لأي قطاع تعليمي في الدول المتطورة.

لذا تسعى دولة الإمارات العربية المتحدة الى تطبيق الاقتصاد القائم على المعرفة وذلك بالتوازي مع الحاجة الى التغلب على "الكسل المتسارع" والذي يعتمد فقط على الموارد الطبيعية. حيث أصبح هناك قلق متزايد حول امكانية اعادة هيكلة النظام التعليمي في الدولة ليتماشى مع التحديات والاحتياجات الحديثة للبيئة العالمية الحالية والتي توصف بأنها سريعة التغيير وتعتمد على تكنولوجيا المعلومات كأساس لجميع الممارسات الناجحة.

ترصد هذه الدراسة استخدام "إطار معايير الرقابة والتقييم المدرسية في دولة الإمارات العربية المتحدة" كأداة لضمان الجودة في مدارس دولة الإمارات العربية المتحدة وذلك لتحقيق التحول المؤسسي وتطوير الأداء، وبالتالي تقييم مساهمة هذا القطاع في بناء اقتصاد معرفة تنافسي في دولة الإمارات العربية المتحدة.

كشف البحث في هذه الدراسة عن أن مفهوم ضمان الجودة تمت دراسته بالأغلبية في السنوات السابقة في مجال الخدمات وليس في مجال القطاع التعليمي. لذلك تعمل هذه الدراسة على التحقق والبحث في مدى مساهمة "إطار معايير الرقابة والتقييم المدرسية في دولة الإمارات العربية المتحدة " كأداة لضمان جودة المدارس ومصدر دعم للتحول وتحسين الأداء.

تعتمد الدراسة النهج الوضعي لنموذج البحث والنهج الكمي للدعم العلمي وذلك للتوصل إلى نتائج وعلاقات دقيقة بين المتغيرات عند اختبار الفرضيات التي وضعتها الدراسة. كما تم جمع البيانات والمعطيات باستخدام "نماذج جوجل" المتوفرة عبر منصة غوغل على شبكة الإنترنت كما تم تحليلها باستخدام برامج الإحصاء -IBM SPSS-23.

(ANOVA) و الشكل الرئيسي لتحليل الأداء هو استخدام التحليل الانحداري المتعدد.

من القيود الرئيسية للدراسة هو ''الوقت" الذي كان يجب أن تتم فيه الدراسة. حيث من المفترض أن تكتمل هذه الدراسة في نهاية العام وفي وقت قصير وذلك نظرا لحاجة البحث للنتائج السنوية الحديثة.

أثبتت نتائج هذه الدراسة أن هناك علاقة واضحة بين معايير ضمان الجودة و "إطار معايير الرقابة والتقييم المدرسية في دولة الإمارات العربية المتحدة".

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LIST OF ABBREVIATIONS

Abbreviation	Full Name
ADEC	Abu Dhabi Education Council
AHP	Analytic Hierarchy Process
CCSSO	Council of Chief State School Officers
DEA	Data Envelopment Analysis
DfE	Department for Education
DSIB	Dubai School Inspection Bureau
GDP	Gross Domestic Product
HEI	Higher Educational Institutions
ICT	Information Communication Technology
KHDA	Knowledge and Human Development Authority
MOE	Ministry of Education
NCLB	No Child Left Behind
OECD	Organization for economic Co-operation and Development
PSQA	Private School and Quality Assurance
SEF	Self Evaluation Form
SFA	Stochastic Frontier Analysis
SIF	School Inspection Framework
UAE	United Arab Emirates
USA	United States of America

CHAPTER ONE – INTRODUCTION

1.1 Introduction

> *"High quality education is vital for employability, for social cohesion and for Europe's overall economic and societal success. Quality, however, needs to be continuously monitored and improved, which calls for effective quality assurance systems covering all education levels."* Tibor Navracsics - EU Commissioner for Education, Culture, Youth and Citizenship and responsible for the Joint Research Centre (Eurydice 2015, p. 3).

Systematic quality management, even though originally developed in the industrial sector, has become equally applicable to the educational sector (Lagrosen et al. 2004). There has been an increased pressure on the educational sector to improve their standards through industry-tailored quality assurance strategies. The introduction of different reforms directed at the improvement of education quality, equity, and efficiency, have therefore been witnessed (Al Kaabi 2015). To enhance quality in education, specific policies, practices and procedures have often been designed and implemented in the forms of schools' inspection and evaluation tools (Eurydice 2004).

The term "Quality Assurance" is considerably new in the educational context but has rapidly come to gain tremendous significance (Allais 2009). Until recently, there has been a lack of clear consensus on what constitute quality assurance itself (Doherty 1994). Doherty (1994) attributes this to the subjective nature of the term "quality" as based on "personal judgment". School reforms in the 1970s led to internal performance consideration (Cheng 2003); it was not until early 2000s schools' external evaluation become an integral aspect of many school evaluation systems all over the world (Eurydice 2004). Eurydice (2004) add that internal and external evaluation systems have gained the predominance in being applied as a process of quality assurance, even though the two have remained different.

It is important to add that the principal motive of school evaluation systems and educational quality assurance metrics, whether considered same or not, have been to enhance institutional effectiveness (Bonca 2015). Ensuring that quality assurance metrics are met has remained critical to institutional effectiveness and the need to achieve not only institutional objectives but to make valuable contribution to national knowledge-based economic aspirations (Cheng

2003). The institution of reforms at the national level to tackle the accountability of educational institutions in the interest of both internal and external stakeholders has been witnessed in recent decades (Evans 1999; Goertz & Duffy 2001; Coulson 1999; Headington 2000; Mahony & Hextall 2000; Heller 2001). Some measures that have been employed to improve accountability to key stakeholders include school monitoring and review exercises, parental choice, student representation, parental and community involvement in school governance, school charter, performance-based financing, and other quality assurance metrics (Cheng & Townsend 2000; Faubert 2009; Slater 2013; Eurydice 2004).

In the United Arab Emirates (UAE), the quest for knowledge based economic development is directly in line with the need to overcome the "impulsive laziness" that accompany natural resource endowment (Al-Filali & Gallarotti, 2012). Knowledge development systems and targets have been instituted as part of the UAE Vision 2021 launched by H.H. Sheikh Mohammed bin Rashid Al Maktoum, Vice-President and Prime Minister of the UAE and Ruler of Dubai in 2010 (UAE Government 2010). This has remained part of a larger effort to achieve a competitive knowledge economy (UAE Government 2010). Among other targets are the need to increase the share of knowledge worker, encourage research and development, and improve other knowledge and technology outputs. The national educational system therefore plays an integral aspect of this quest (Cheng 2003; Daun 2001; Burbules & Torres 2000).

Upon this background, it is important to highlight that there have been increasing concerns regarding the ability of national educational reforms to meet modern challenges and requirements for the current rapidly transforming global and information technology environments (Cheng 2003). Moreover, with emphasis on knowledge-driven economies, several studies have already associated this with the need for a strong focus on learning and teaching in terms of content, purpose, practices, and management of education at all levels (Cheng 2003; Daun 2001; Burbules & Torres 2000; Stromquist & Monkman 2000). Modern reforms of education towards quality therefore strongly consider future effectiveness in terms of the shift in education concerning contextualized multiple intelligences, globalization, localization and individualization (Cheng 2003). Quality assurance metrics and other inspection tools have evolved and assumed a very strong position in the quest to transform and develop educational institutions across the globe (Partnership for 21st Century Skills 2009; Parker 2008, p. 202).

This study observes the UAE Inspection Framework as a quality assurance tool used in UAE schools to achieve institutional transformation and performance, to assess the contribution of the sector towards a competitive UAE knowledge economy. The study builds on a quantitative methodological approach in a survey of teachers across American schools in Dubai. Evidence is established with the help of data collected using an online survey questionnaire. Differences in perceived quality and performance levels are observed using the test for differences between means, a function of IBM SPSS Statistics software. Other analyses are conducted to answer the key research hypotheses considered. These include regression analysis and the test for correlations between key variables. Important implications of findings are established theoretically and practically. Practical implications pay keen attention to the interpretation of the results in context of UAE's quest to build a knowledge economy.

1.2 Problem Statement

Even though some studies have attempted to address quality in the context of education (Green 1994; Harvey & Green 1993), areas that need more focused attention still exist. Looking at literature surrounding quality assurance reveals that the concept has been generously studied in the field of services (Lagrosen et al. 2004), and there is much uncertainty as to whether these studies are applicable in the field of education performance management. This gap exists even though quality evaluation and assessment frameworks in schools have been generally acknowledged (Lagrosen et al. 2004; Eurydice 2015; Doherty 1994). There is the need to bridge the gap between school inspection tools and educational quality assurance metrics, observing how both tools and these quality assurance metrics drive institutional quality, transformation and performance; this area has remained unexplored.

1.3 Research Objectives

1.3.1 Purpose of the Study

The main purpose of the study is "to investigate the contribution of the UAE School Inspection Framework (SIF) as a quality assurance tool for school transformation and performance improvements". This purpose is achieved with special reference to American schools in Dubai.

1.4 Research Questions

1.4.1 Main Research Question

The main research question of the study is, "what is the contribution of the UAE School Inspection Framework as a quality assurance tool for school transformation and performance improvements?"

1.4.2 Specific Research Questions

   I. To what extent do quality assurance processes in education contribute in the transformation and performance of schools in UAE?
   II. To what extent does the UAE school inspection framework contribute in the transformation and performance of schools in UAE?
  III. What is the impact of school transformation on institutional performance in the UAE?
  IV. Can the UAE school inspection framework be considered as a quality assurance tool?

1.5 Rationale and Significance

The present study is of key significance to academia and practice. Theoretically, the study will contribute additional insight to the area of quality in education as originally conducted by Green (1994) and Harvey & Green (1993). As mentioned by Lagrosen et al. (2004), this area demands additional effort in order to cement the contribution of educational quality tools to institutional development. The model of the study can be built on to achieve more insight regarding school inspections tools, quality assurance metrics in the educational sector, and how these lead to institutional transformation and performance.

The contribution of the quality in education is a vital requirement in the United Arab Emirates' agenda, which is the road map to build a future of the knowledge-based economy (UAE Government 2010). Theoretically, Daun (2001), Burbules & Torres (2000) and Stromquist & Monkman (2000) have argued that national educational system is a critical and fundamental aspect of knowledge based economic development. Observing the quality assurance orientation of the UAE school inspection framework is therefore of tremendous significance to the Ministry of education and the UAE in general. This will help outline the major requirements required for a successful educational system in UAE.

1.6 Organization of the Study

The study is separated into five main chapters. Chapter one presents an introduction to the study. This chapter presents the background of the study, research problem, purpose, research questions, rationale of the study and finally organization of the study. Chapter two is divided into two parts; part one critically discusses underlying theories and concepts of the study, part two pays attention to the UAE educational sector and the quest to establish a knowledge-based economy. Chapter three presents the research methodology. Main areas include the research design, population and sampling technique, sources of data, results from the pilot study, how research credibility was established, limitations and other ethical considerations.

Chapter four presents the data analysis and findings. Main sections are informed by the research questions presented in this chapter. Chapter five presents the discussions, conclusions, recommendations, and limitation of the study. The conclusions are established based on the research objectives and key implications discussed. Recommendations are offered to future researchers who would want to pursue similar areas of study. Other recommendations are offered to the UAE Ministry of Education, UAE Government and UAE schools on how to improve quality and institutional performance in the sector towards a competitive knowledge economy

CHAPTER TWO - LITERATURE REVIEW

The theoretical underpinnings of the study are presented in this chapter. Key concepts in quality assurance as well as related concepts are discussed. A critical review of literature helps to understand the underlying theoretical assumptions of in the study. Literature review is essential as it adds to the achievement of the purpose of the study as it focuses on important issues. The chapter begins by presenting the evolution of quality assurance in education. It goes on to further elaborate on key quality assurance tools and policies. Next, it focuses on the concept of knowledge-based economy; the need for quality control mechanism in global education and the contribution of high quality education to institutional transformation and performance.

2.1 Theoretical Framework

The conceptual framework of the study is presented in Figure 2.1 below. The two main antecedents of the model include quality assurance process or metrics and the UAE Framework on inspection. These variables are examined with regards to their contribution to institutional transformation and institutional development in the first and second sets of hypotheses. These relationships are mainly supported by Slater (2013), Faubert (2009), Harris (2007) and Bialecki et al. (2002) with regards to the contribution of quality assurance in schools to overall school development.
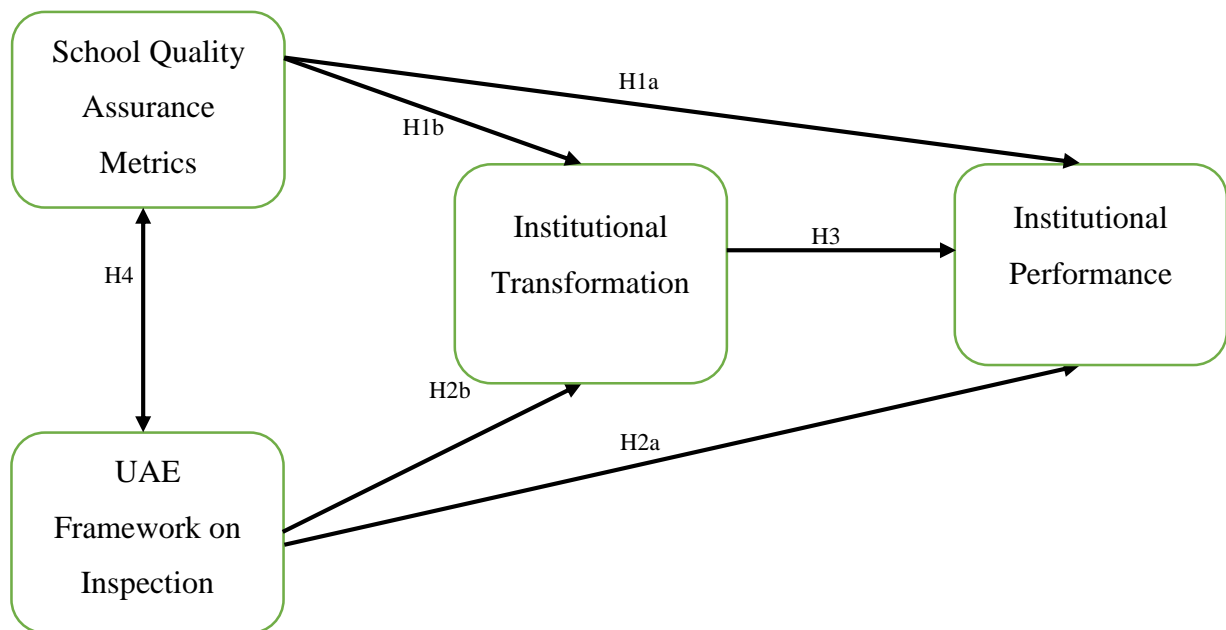
Figure 2.1 Theoretical Framework

The third hypotheses observe the impact school transformation on institutional performance and this is supported by Hicks (2007a) and Partnership for 21st Century Skills (2009) regarding the need for school transformation if the school will remain competitive according to global standards. Finally, performance is defined based on traditional UAE Framework performance criteria (KHDA Inspection Framework 2015; MoE, 2016) considering the study mainly focuses on this scope for sampling.

2.2 Transformation in Global Education and the needs for the 21st century skills

With globalization on the rise, there is a need for educational institutions to meet the demands of the global age (Hicks 2007a). This was carried out with the help of educators, NGOs and intergovernmental organizations. The approach seeks to expand the educational curriculum, as it strives to prepare the youth for the global market. As a key advocate for educational reforms, Partnership for 21st Century Skills (2009, p. 21) asserts that there is:

> *"a profound gap between what is being taught in schools and the skills and knowledge young people need for living and working in today's world."*

There is therefore a demand from the global market on schools to improve their approach to learning (Partnership for 21st Century Skills 2009; Parker 2008, p. 202).

Equipping students for success in a knowledge-based economy remains a challenge especially for K-12 teachers (West 2012). The Asia Society and Council of Chief State School Officers (CCSSO) define global competence transformation as the capacity and ability to acknowledge and act on issues of global significance and react accordingly (Mansilla & Jackson 2012). According to Schleicher (2012) there has been an increasing demand for new skills such as critical thinking and problem-solving skills within and across disciplines (West 2012).

For institutional transformation, skills centered on creativity, innovation and collaboration have been emphasized. National Geographic-Roper Public Affairs (2006) add that there is the need to teach students how to be creative and innovative (West 2012). According to Brown (2010), global learners are described as responsible citizens who contribute positively to the society. Key areas of transformation in global education are discussed in the sub-sections that follow.

2.2.1 Knowledge Transformation

The first thing global educators should attain in educational transformation is the need to remove the old curriculum centered on subject knowledge (Mullar 2000; Standish 2014). While some advocates of educational curriculum reform in modern times suggest a curriculum that primarily focuses on preparing young people for the global market, others suggest a curriculum that focuses on developing an enhanced sense of self in young people. Both categories share in common their desire to eliminate the boundaries of the old curriculum which focuses mainly on subject knowledge (Standish 2014).

Global knowledge is geared towards including the perspectives of minorities and children. Hicks (2007b, p. 27) emphasizes that global education has for over several decades considered and acknowledged that any attempt to establish insight in any aspect of the society must be based on experiential learning approach. Due to continuous improvement of knowledge, young people should be adaptable, flexible, willing to work and update their knowledge to stay current with new information and technological improvement.

2.2.2 Skills Transformation

Since the new global or knowledge economy, there is a demand for higher levels of skills and knowledge of employees. Duncan (2010) likened education to currency stating that it is used by nations to remain economically competitive and globally prosperous. The ability to transform learning skills into personal, social and emotional skill is fundamental to educational transformation capabilities. Key learning and personal, social and emotional skills are presented in Table 2.1.

Learning Skills	Personal, social and emotional skills
Self-direction	Communication
Critical thinking	Foreign language
Information and media skills	Teamwork and Collaboration
Technology skills	Cross-cultural understanding
Problem solving	Leadership
Creativity	Responsibility to and respect for others
Productivity and Accountability	Empathy
Flexibility and Adaptability	Social responsibility and citizenship
Learning to learn	Global awareness
Systems thinking	Health awareness
Making judgments, decisions, reasoning	Financial management
Working independently	

Table 2.1 Global skills in US and English Curriculum (Standish (2012).

The key skills for global citizenship include personal, social and emotional skills; skills for community participation and citizenship and learning skills (Standish 2014). Global skills on how to manage relationships include conflict resolution, negotiation, dealing with bullying, flexibility, communication and respect for people's culture. Payne (2000, p. 355) draws a distinction between skills achieved then and those achieved now.

2.2.3 Ethics Transformation

Global education aims at engaging students with contemporary issues fostering development of the child's awareness as a social and personal being. Topics on global issues include poverty and malnutrition, environmental and ecological problems; conflict resolution, health, human right, population growth and technological change (Standish 2014). The introduction of global ethics aimed at inculcating in the students' values of tolerance, diversity, human rights, social and environmental justice and peace (Heilman 2009). Global ethics transformation seeks to educate children about themselves as persons or social beings. This has therefore formed the basis of current course and training program designs in todays globalized world. Morgan (2006) offer several instances and examples where student leaning inculcates core elements of ethics transformation.

2.3 Knowledge-based Economic Development: The role of Educational Institutions

The subject of knowledge-based economic development comes into context considering the contribution of quality education to this area (Strozek 2014). According to Wroniecki (2001), real knowledge economies only emerged about three decades ago in the period of information communication technology (ICT). ICT has radically changed in the way knowledge is managed in terms of its observation, production, usage and storage. Following these changes was the realization of the possibilities presented by knowledge in driving development at various levels of individual, business and state economies. According to Strozek (2014), some popular terms that pointed at knowledge-based economy in the 1960s included "working knowledge" and "knowledge society". Among the terms used to refer to knowledge-based economy are "information economy", "digital economy" and "network economy".

A definition of the concept has been attempted by many researchers; OECD (1996) defines it as the effective use of knowledge and information through the competitive production, distribution, and practical application of this knowledge; Powel & Snellman (2004) defines it as the concept as the use of knowledge-driven activities to produce services that speed up

technological and scientific advancement and obsolescence. Looking at the definitions offered by OECD (1996) and Powel & Snellman (2004), similarities are noticed in terms of how countries that work towards the establishment of a strong economic environment pay attention to knowledge generated by educational institutions.

It may be emphasized that predominantly, these definitions both acknowledge knowledge as an input for knowledge-based economic development, which when effectively implemented, must result in positive technological, scientific, and economic outcomes. The concept of Knowledge-based economic development is based on the aforementioned knowledge application. Knowledge-based economic development has been likened to knowledge management in the sense that it emphasizes reliance on intellectual abilities instead of physical resources (Powel & Snellman 2004; Al-Filali & Gallorotti 2012). Ultimately, the concept of knowledge-based economic development involves the integration of knowledge in all levels of production, and the exhibition of this integration through the resulting sustainable share of GDP that can be attributed to intellectual capital at the national level (Powel & Snellman 2004; Al-Filali & Gallorotti 2012).

Knowledge may be considered as an input or as an output (Al-Filali & Gallorotti 2012). The Knowledge Assessment Methodology by the World Bank (2012) sheds light on this debate in order to assist countries who want to shift to knowledge-based economies by exploring the educational and knowledge sector. The methodology comes with a scale by which countries can measure how well they are doing in terms of transforming into a knowledge-based economy using quantitative and qualitative measures. Compared to other approaches suggested by Dworak (2012) and Nicolescu & Nicolescu (2015) that lack a holistic approach to knowledge economy measurement, the use of quantitative and qualitative measures presents a more effective way to test the input and output arguments. The methodology proposed by the World Bank (2012) remains a well-recognized tool for the benchmarking and measurement of knowledge economy.

2.4 Evolution of Quality Assurance in Education

According to Van Damme (2002), quality assurance first surfaced in the 80s in the form of quality assurance agencies, and they have since then become a key objective of governmental policies as well as directive instruments for educational systems in many parts of the world. The concept of quality gained popularity in education in the 90s and become a key concept on

which many large organizations and governments focused. Following this, national quality assurance systems have either been established or are about to be established in many countries (Van Damme 2002). As government budgets grew increasingly restricted, stunted as well as declining funding for students were experienced, and these necessitated expectations for institutions to work towards increasing public accountability (Neave 1998).

According to Neave (1998), there is increased competition on the education scene, traditional student recruitment networks grew increasingly extinct, students and academic professionals grew increasingly mobile, and private institutions increased competition in the education environment. Awareness among the public regarding education systems has also increased and this led to the demand of more transparency, and high levels of quality. Quality assurance policies in several countries begin in political and governmental settings that represent a transformational relationship between states and institutions (Van Damme 2002) The transformation of this relationship, especially in Western Europe, was determined by the increasing independence of institutions, transfer of authority, a shift of education systems towards market-state orientation, and relevance of output/performance based factors.

Aside from the above assertions, the role of deregulation, independence of institutions significantly necessitated quality assurance and accountability; this shift received positive perceptions from both governments and institutions. Harman (1998) asserts that quality assurance has secured its place as a critical factor in higher education systems that adopt an approach of self-regulation to their relationships with governments. There is considerable sensitivity regarding the ownership of quality assurance agencies, and some countries continue to experience a power struggle between the government and institutions. On the other hand, in countries where institutions have high independence and government control is weaker, modern day quality assurance measures especially in the form of accreditation have been in play for a much longer period (Van Damme 2002).

The role of accreditation in quality assurance evolution cannot be ignored; Van Damme (2002) argues that the United States of America (USA) has practiced this channel to quality assurance the longest. Even though accreditation bodies may not derive their authority directly from the government, the government depends on accreditation from these bodies in order to deem certain institutions eligible for different forms of funding. Others agree that successful balance of power between the governments and private educational institutions is essential for quality in the educational sector (Finkin 1995; Wolff 1993). Important quality assurance policies that

have gained popularity include UK quality assurance model which is usually adapted in other Commonwealth nations, the Dutch quality assurance model also adopted in several countries and is based on a self-regulatory approach, and other more country quality assurance programs usually (Van Damme 2002).

2.5 The Concept of Quality Assurance in Education

2.5.1 Quality Assurance

Salih (2008) points it out that quality assurance as a concept is not new, however, many of its associated terminologies which are used for its definition, development and implementation are relatively new. There have been varying perceptions regarding quality in education and what it means, different definitions have been proposed, but there is no general agreement in a single definition. Salih (2008) however notes that the "fitness for purpose" criterion is one that has gained wide recognition. Maguad (1999) defines the concept as the measurement of the quality of a product or service in terms of meeting its intended purpose. According to Salih (2008), quality is defined by the initial identification of the people who are to benefit from the product or service at hand. After identifying these people, their requirements and expectations, steps are taken by the service providers to use these requirements and expectations to create or tailor products and services that meet or even exceed these expectations and transfer it into the educational context (Maguad 1999).

According to Maguad (1999) the endpoints of education service delivery may be internal or external. While the internal customers include teachers and students, the external customers include parents, higher level institutions, employing firms, the government and the society as a whole. Ultimately, educational institutions must take into consideration the requirements and expectations of all these customers as they all possess different requirements and expectations. The acknowledgement of the endpoint of educational service brings into context the need to consider the purpose of the educational function. Salih (2008) and Smith (1999) define quality management as the process of fostering the integration of the right people in work teams that break boundaries between organizations, with team members that are equipped to make key changes.

2.5.2 Quality in Education

According to Salih (2008), the educational sector is facing similar challenges to those faced by the business sector due to the increase in demand for high quality education by students and society as a whole. It is therefore important to find tangible measurements with which quality education can be evaluated in order to identify areas that need improvements. There is difficulty in defining underlying measures based on which quality education must be evaluated; compared to the business sector, education operates in a different way and deals with the quality of knowledge and its provision to students (Salih 2008). To measure and evaluate performance in education, key factors must be taken into consideration, and must be developed and maintained by the owners of educational processes. Salih (2008) proposes that these measurements have become essential for both private and public-sector stakeholders and must consider key areas of effectiveness, efficiency, productivity, quality and impact.

The measurements of quality should be able to reveal positive results in terms of the performance of institutions in satisfying its customers, and whether its processes and systems are well-suited to solving problems and meeting the desired requirements… as well as areas of improvement. Factors that can be used to measure this include student turnover rate and dropouts (Cheng 1996; Cheng & Tam 1997; Fielden & Abercromby 2000). Another key factor is the contact hours between students and instructors (Salih 2008). Whereas contact hours refer to the ratio of student hours to instructor hours, other factors like number of visiting professors from foreign countries, employability of the institutions' graduates, number of published researches, have all been used to measure quality in educational institutions (Salih 2008). Evaluation of teacher quality based on their performance in the classroom is another key factor (Grossman et al. 2010; Kane & Cantrell, 2010; Whitehurst et al., 2014).

2.6 Inspection Process as Quality Assurance Tools to Evaluate Quality of Education

Slater (2013) add that the primary processes for monitoring and evaluation include the regular collection of information, the analysis of the collected information, and the use of the analysis results to plan on future actions. In addition, the main tools for monitoring and evaluation may be referred to differently by different people and these include external supervision, inspection or audit, internal evaluation/self-evaluation and examinations/tests among others (Slater 2013). External supervision and inspection exercises are usually organized by national or regional education ministries or their agents. These exercises include the inspection of the

administration and professional activities of institutions to check whether they are in line with legislation and are effective (Faubert 2009). Other areas of focus during external supervision and inspection exercises include teaching and learning, curriculum, response to students' needs, leadership and management of the institution, and the institution's relationship with parents and the society as a whole (Slater 2013; Eurydice 2004; Faubert 2009).

External inspection is defined as the system or arrangement in which some dimensions of an organization are evaluated using a standard developed outside the organization. In this case, the inspection is carried out by an outside body (Flodgren et al. 2011). According to Walshe (2003), external inspection is mostly carried out to ensure that laws are being obeyed. External inspection or evaluation is carried out by inspectors outside the school but who report back to school authorities. It is usually carried out by the school district, a ministry of education or a national evaluation department (Faubert 2009; Nero 2000; European Commission 2015). External inspections are usually carried out by outside bodies such as professional associations, government inspectors or other accreditation agencies (Wong & Li 2010). Areas of inspection include teaching and learning process, student support, the attention given to students with special needs, educational approach, human and financial management and resources (Eurydice 2004).

Faubert (2009) and Ehren & Visscher (2008) mention that the process of external inspection begins with an initial notice of the inspection; this includes a preparation of pre-inspection and the collection of background information of the institution in question. These are done with questionnaires for the staff of the institution as well as the parents. After the pre-inspection, the inspection agency pays a visit to the institution and interviews its leaders, teachers, and parents and students in some cases. The institution's documents are also inspected, and the findings are reported and feedback given to the institution. Finally, the inspectors carry out follow ups which consist of compliance and support actions. It is important to maintain a common benchmark for external evaluation in order to ensure consistency in the judgments of all institutions, and also show the standards that are expected of institutions and help give a clear picture of what is considered as quality education in the country (Ehren et al. 2005; Matthew & Sammons 2004).

As opposed to external systems, internal evaluation or self-evaluation is typically led by the administrator of the educational institution, and can have the involvement of other stakeholders. Internal evaluation may be in the form of legislative requirement (Slater 2013).

The Quality Assurance Authority for Education & Training (2009) indicated that institutions might not be thorough enough when conducting self-evaluation, even though they may be using national or regional benchmarks or criteria. The self-evaluation process depends greatly on the capabilities of the institution's administrator (Emstad 2011). In cases of devolution of management responsibility and the transfer of resources and development of curriculums, organizations usually prefer stronger checks such as external evaluation alongside self-evaluation (De Grauwe 2001).

It is important to note that whether internal or external, examinations and tests are sometimes used for formative assessments that help improve teaching and learning (Slater 2013). Moreover, they are used for a number of purposes such as the selection of students, to find out whether students are acquiring the required knowledge and skills, and sometimes to benchmark the achievements of students in one country or region against the achievements of students in other countries or regions (Slater 2013). In event of standardized examinations, they can be used to predict how certain institutions and their students perform. Faubert (2009) argues that some institutions are within better circumstances than others are, and it is important to identify the value added by institutions in examination results as better performances may simply be because of superior socio-economic circumstances of certain institutions. Finally, Volante (2007) add that tests and examinations limit the coverage of the curriculum as evidence show higher drop-out rates among low-achieving students (Faubert 2009; Harris 2007; Bialecki et al. 2002).

2.7 School Inspection Visits as a School Accountability Metric

Eurydice (2004) asserts that accountability and evaluation are strategic in fostering quality education. School inspection is strategic to the evaluation and accountability of education (Gustafsson et al. 2015). The role of the Inspectorate is to evaluate the quality of education which ultimately helps to improve the experience and performance of learners (Nelson & Ehren 2014; Hanushek & Raymond 2005; Luginbuhle et al. 2009; Matthews & Sammons 2004: Rosenthal 2004). School inspection is the process of "*periodic, targeted scrutiny*" carried out to ascertain whether the quality of schools meets both local and international standards, legislative and professional requirements and both the needs of students and parents (Janssens 2007). Quality assurance requires schools actively involved in providing quality service (Hendriks 2001; Visscher 2002; Wilcox 2000).

Van Bruggen (2001, 2006) categorized the inspection functions into three groups – to provide a public account regarding the quality of schools; to give a guarantee of compliance with regulations and to provide an 'imposed' service for quality management. Inspection types vary depending on the number of inspectors, duration of inspection and nature of what is inspected. There are those carried out by a single inspector usually for a day or two; those carried out by a team usually for a week or more. There are also cases of 'short' inspections (Wilcox et al., 1993; Mordaunt 1998). Ethical issues have been highlighted; they include accountability (the right to know), adherence to specific procedures as this is key to building trust between the inspector and those being inspected; equality (European Commission 2015).

Janssens (2007) cites the importance of supervision in inspection. Inspection visits are carried out depending on the degree of quality assurance. Schools that perform poorly are said to be inspected sooner and more often than those that perform better (van Amelsvoort & de Wolf 2006). It is necessary for schools to meet up with the inspection standards – legal standards, standards relating to the context and process quality of the education provided and those defining performance and results targets for schools (Ehren et al. 2013). In cases where a school fails to meet up the standards or has a certain weakness, a follow-up inspection is required. In other cases, the attention of the school is brought to the nation or parents withdraw their children from the school.

Ferguson et al (2000, p. 21) argue that Ofsted Inspections has continued to win a *"general acceptance"* as it is a "*necessary accountability mechanism*". Nonetheless, teachers have reacted in both positive and negative ways to inspection frameworks, considering the extent to which it falls in congruence with their professional beliefs and values (Lee & Yin 2010; Saunders, 2013). Inspection can be grouped into different typologies. Rhodes (1981) classified inspection as enforcement inspection and efficiency inspection; while enforcement inspection seeks to ensure that statutory requirements are followed, efficiency inspection seeks to supervise standards of performance. Hughes et al. (1997) categorized them as 'non-punitive based on peer review' and 'punitive based on a managerial approach'. There are those classified as 'collegial' with focus on self-responsibility, self-evaluation and self-regulation and 'bureaucratic' with focus on rules, procedures, accountability, compliance and sanctions (McGarvey & Stoker 1999). Day & Klein (1990) introduced the policing style of inspection and the consultancy approach.

2.8 Stages of Inspection and School Evaluation

Inspection involves a number of stages – notice of inspection to the school, pre-inspection and background documentation, site inspection visits and observation and follow-up (OECD 2008). Eurydice (2004) classified the stages as collection of information, assessment, evaluation and implementation of changes. Key stages of inspection and evaluation are discussed in subsequent paragraphs.

First, the investigation stage involves the examination of documents prior the visit. Both qualitative and quantitative documents are collected. Documents include curricular plan, information and technological development plan or educational policies; results of internal exams and tests, financial management reports, annual report of the school to the parents. Documents from central authorities are also examined – complaints, statistical report. Questionnaires are also sent to the school head, management team, teachers, parents, students or committee members. Details concerning student enrolment or background of the student are taken into account.

The second stage is known as site visits. In most cases, the school is informed about the intended visit. During this stage, teaching and student reaction are reviewed. In addition, the leadership and management of the team are also reviewed (Rosenthal 2004). Inspectors operate in teams of 10 and 15 members to ensure a thorough assessment of the school (Eurydice 2004). After site visits, discussions are usually held before the final evaluation report in order to give schools an opportunity to respond (Eurydice 2004). It involves the school head, management team, school board and sometimes the parents. In Netherlands for example, only the management team is involved.

Follow-ups come after discussions; during this stage, educational authorities are able to monitor and improve the quality of schools. The follow-up stage is carried out to verify the credibility of the conclusions. In this case, the objectives initially set up during the evaluation period are examined to know if they have been met. The last stage of the evaluation process is the reporting stage. In some cases, the report is announced online. OECD (2008) reports results on the area after schools' evaluation and inspections from 12 OECD countries. Even though these reports are largely produced in OECD countries, only a few of them implement these results and analyze them for deeper insight in government decision making. Iceland for instance implements these results by observing them in comparison to the various school performances.

2.9 Quality control mechanism and Inspection Frameworks

In order to meet the demands of quality, quality must be managed accordingly (Vlasic et al., 2009). Quality control is the ability of an organization to ensure that its goods and services meet up to its expectation (Premeaux & Mondy 1993). Ultimately, it represents the ability to assess problems using a particular set of standards. It is a 'reactive approach' which points out a weakness or non-compliance to ensure it does not occur again (Doherty 2012). Quality control involves measuring quality performance to see if it meets up to the set standard (Schonberger & Knod 1997). According to Friend-Pereira et al. (2002) quality control refers to the confirmation of both formal and informal procedures in order to measure the standard of quality to a satisfactory standard.

Inspection has been argued on several occasions as quality control mechanism in educational institutions. Monitoring and maintaining quality in schools is strategic in the sense that it induces a high level of performance and remove all forms of low quality rates for pupils (Dunford 1993). In the education sector in particular, inspection remains a strong quality control mechanism (Dunford 1993). Adyin (1993) add that inspection as a quality control mechanism exists not only in the educational sector but in all complex organizations.

Ultimately, it helps in the management process. Mortimore (1992) identifies four different ways of monitoring quality in school. They include Her Majesty's Inspectorate (HMI) and Local Education Authority (LEA) Inspectorates, various forms of educational testing and examination, informal comments by parents and through research. School quality monitoring systems may differ from country or region to region even though they have an underlying quest to assess or observe education quality (Mortimore 1992).

2.10 School Performance

Performance excellence in the education sector is triggered by competition, government public expenditure, the need for internal performance improvement and demand from stakeholders to create value for money (Asif & Searcy 2014). There is the need to measure performance in schools. Performance measurement is imperative for achieving performance excellence. There is the need to manage performance, thus, the effective management of performance indicators (Asif & Searcy 2014). According to Kells & Mundial (1992, p. I) performance indicators (PIs) are:

"factual or opinion information gathered from existing databases about the functioning of organizations or their constituent units."

Ball & Wilkinson (1994) categorized performance indicators into three – internal, external and operational. Internal indicators include classes of degree and graduation rates; external indicators include staff publication and citations and operational indicators include faculty-to-student ratio (Ball & Wilkinson 1994). Performance indicators can also be grouped in areas of research, teaching, finance and service (Cave et al. 1988; Badri & Abdulla 2004). It is important that schools adopt the right performance indicators that are aligned with their mission and context (Ball & Wilkinson 1994).

Taylor (2001); Nedwek & Neal (1994) assert that effective performance indicators can be facilitated through faculty input. Although performance indicators help assess performance excellence in areas such as research, finance and teaching, the use of PIs in educational institutions is challenging (Neal 1995; Taylor 2001). Murias et al (2008) talks about the composite index as an important aspect of performance management. This approach helps compare performance internally by transforming results into composite values. It is critical in putting a complex set of information into easily understood contexts (Singh et al. 2007). "They offer rounded assessments of system performance than piecemeal inspection of individual PIs, and that it facilitates judgment on overall system efficiency" (Smith 2002, p. 298). Composite index serves as a benchmark for measuring and comparing performance excellence.

Singh et al (2009) identified some methods for developing a composite index. They include principal component analysis, factor analysis, stochastic frontier analysis (SFA), data envelopment analysis (DEA) and Analytic hierarchy process (AHP). Studies have shown a number of requirements which must be met before for the efficient use of performance indicators in HEIs (Badri & Abdulla 2004; Nedwek & Neal 1994; Taylor 2001).

Students' test results have been used to measure the performance of schools. It is argued that if those tests can measure individual performance, they can also be used to evaluate and assess the performance of schools and educational programs (Hamilton et al. 2011). As a result of the criticisms of No Child Left Behind (NCLB) law (Economic Policy Institute 2008; Hargreaves and Shirley 2008), there is the need to carefully examine the measures of school performance. Educational institutions prioritize values such as student achievement and attainment. However, there is a debate about the degree of attention given to subjects other than

mathematics and reading and also the inclusion of data from assessments (Hamilton et al. 2011).

A good understanding of the purposes of a school indicator system would direct the schools' choice of performance measurement and inform the structure of research to be carried out. The four important purposes of a school indicator system include monitoring, diagnosis and prescription, signaling and accountability. It is important that educators and developers understand the relevance of each purpose as a particular purpose cannot be used for another (Joint Committee on Standards for Educational and Psychological Testing 1999; Kane 2006). The relationship between inputs, processes and short-term performance outcomes is presented in Figure 2.2.

Inputs

Examples:

- Level of funding
- Class size
- Teacher qualifications
- Students' family background

Processes

Examples:

- Quality of instruction
- Teacher-student interaction
- School climate, order, safety

Outcomes

Examples:

- Test scores
- Student attainment
- College and workforce readiness
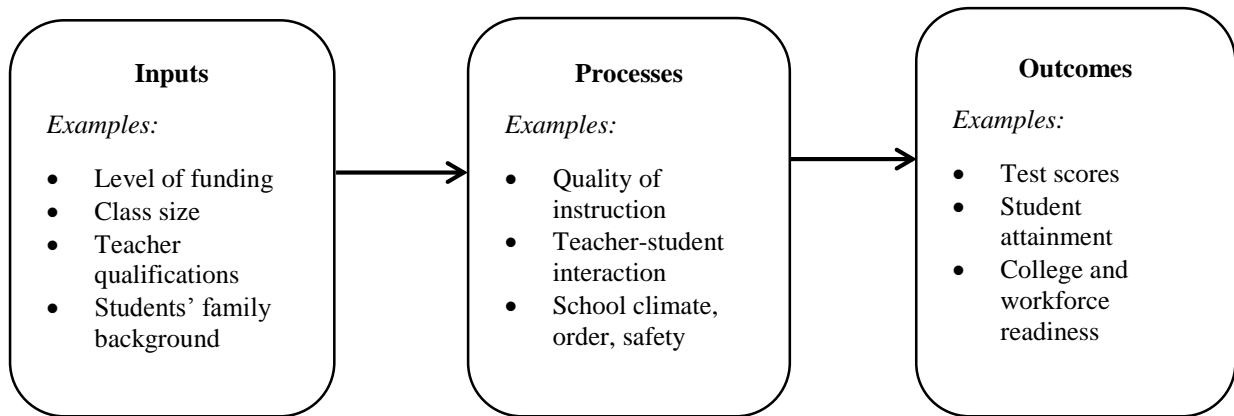
Figure 2.2 Relationship between School Inputs, Processes and Short-Term Outcomes

2.11 Scope and Context of UAE Educational System

This section pays attention to key insight surrounding the scope of the study. Keen attention is paid to UAE and the current situation of quality education. Mode detailed attention is paid to the quality assurance processes in UAE Schools and the quality mechanisms and controls in the region. Main components of the UAE unified inspection framework are presented paying attention to old and new systems of school inspection.

2.11.1 UAE context and Current situation of quality of education in UAE

According to Akadeemia (1997, p.1) a knowledge-based economy is one characterized by knowledge and research; where research and education are the key foundations of the society and it is geared towards innovation. The knowledge-based society comprises of a built-up knowledge, transmission of knowledge through education and training; the use of media in

transmitting information and the implementation of technological innovation. OECD (1999) classifies a knowledge-based economy as one where "*production, diffusion and the use of technology and innovation"* are critical to economic growth. With globalization and innovation on the increase, there is the need to move towards a knowledge-based economy. With the demand for a more skilled workforce, there is the pressure on the population to learn to operate with information and technology. (Pargaru et al. 2009). According to Toffler (1990), the most economic development is the creation of wealth using the mind rather than muscles.

There is link between high quality education and the growth of national economies (Toffler 1990). High quality education is essential in reducing poverty. This is done through training of qualifies labour force, generating new knowledge and building capacity. The values imbied in students by educational institutions make up the social capital required to build a socially cohesive culture (World Bank 2012). Quality education promotes economic growth through capacity building, creating of highly skilled workforce and research. Higher levels of education are associated with productivity, growth and standards of living (OECD 2016). Through quality education, the social needs of the twenty-first century are met.

2.11.2 Quality assurance as a control mechanism for quality in schools in UAE

Due to the increase in the student number, diversity, cost of educational sector (Woodhouse 2009b), globalization of the labour market and the need for academic institutions to remain competitive, there has been a demand on the educational sector to provide quality assurance (Ramadan et al. 2011). Quality assurance is defined as a proactive approach (Doherty 2012). It is a process that involves assessing, monitoring, guaranteeing and improving the level of quality in educational institutions (Van Damme 2014). Achieving quality assurance in schools goes beyond monitoring student performance; it entails observing the backgrounds of the student, structure of schools, school culture and school curricula (OECD 1989, p. 27).

The need to achieve quality assurance has gained a wide recognition owing to the fact that the strength of graduates in their disciplines are being questioned (Woodhouse 2009b). In order to achieve high quality assurance in its education, the UAE National Agenda Parameter was introduced to measure and monitor schools' progress (DSIB 2016). UAE has further added the concept of inclusion to help facilitate student performance. Through an inclusive education, students are able to learn, develop and participate together. It helps support diversity and ensure that individuals are respected (KDHA Inspection Framework 2015). In line with UAE's 2021 vision, schools are advised to include the Ministry of Education UAE Social Studies curriculum

standard as it will provide students with the necessary skills, knowledge and understanding they need to be better social actors and responsible citizens.

2.11.3 KHDA quality assurance process, framework and inspection

School inspection accounts for improvements in various levels of education. Even though this assertion is true, it is essential to consider the strengths and weaknesses of inspection, a requirement for more productive outcome. According to KHDA (2011), Dubai is one of the most privatized education systems in the world. The Emirate has over 13 approved curricula with a wide range of differences with regards to the quality of education provided by the institutions. The Dubai Education System has significantly improved over the years to offer quality and competitive education to the increasingly diverse population. The educational system is installed as soft infrastructure to accommodate the hard infrastructure in order for both areas to drive the Dubai economy successfully.

In accordance with international best practice, school inspection emphasizes on the importance for schools in Dubai to familiarize with evaluation processes and improvement planning (KHDA Inspection Framework 2015). According to KHDA (2013), The Authority operates on the belief that quality education is a shared responsibility in which stakeholder engagement is critical. Ensuring overall stakeholder satisfaction remains fundamental to excellence of the KHDA framework. School inspection is under the direct auspices of the Dubai School Inspection Bureau (DSIB). The DSIB was established in a Dubai Executive Council Decision number 38 of 2007. The Decision was to ensure that the Government is privy to comprehensive information and data on private school education in order to undertake school and policy improvement towards overall knowledge-based economy.

As part of the underlying rationale for school inspections in Dubai is to provide insight to all stakeholders of the sector. The need for school inspections was an important step to ensure overall improvement of the quality of education in Dubai. Even though the Bureau was set up in 2007, inspection started only in 2008 and the inspection Handbook was published the following year as a metric or guide to school inspection (DSIB 2009). With annual reports on school performance, the position of schools on Dubai are well known and appreciated. The various curricula, whether public or private, and other date required to make informed decisions in the sector are well known. According to KHDA (2017), the inspection standards are regularly revised together with educational practitioners and other stakeholders in the industry. Special agreements exist between the BSIB of KHDA and other international agencies such as

the Department for Education of England and Wales (DfE) where British Schools Overseas Inspections are carried for British Schools taking into account local requirements.

As part of the performance criteria, KHDA uses six performance standards include students' achievement, students' personal and social development and innovation skills, teaching and assessment, curriculum, protection and guidance and support of students; leadership and management.

Performance	Indicators
Students' Achievement	Attainment, progress, learning skills
Students' personal and social development and innovation skills	Personal development, understanding of Islamic values, awareness of Emirates and world culture, social responsibility and innovation skills
Teaching and Assessment	Teaching for effective learning
Curriculum	Curriculum design and implementation, curriculum adaptation
The protection, care, guidance, and support of students	Health and safety which includes child protection or safeguarding, care support
Leadership and Management	Effectiveness of leadership, self-evaluation and improvement planning, partnership with parents and the community, governance, management, staffing, facilities and resources

Table 2.2 Performance Criteria for KHDA (KHDA 2016)

The use of conceptual framework is essential in inspection to help make meaning of observations and judgements. The UAE School Inspection Framework concludes with an overall judgment of school performance using a six levels scale.

Level	Meaning
Outstanding	Quality of performance **substantially exceeds** the expectation of the UAE
Very Good	Quality of performance **exceeds** the expectation of the UAE
Good	Quality of performance **meets** the expectation of the UAE (**This is the expected level for every school in the UAE**)
Acceptable	Quality of performance **meets the minimum** level of quality required in the UAE (**This is the minimum level for every school in the UAE**)
Weak	Quality of performance is **below** the expectation of the UAE
Very Weak	Quality of performance is **significantly below** the expectation of the UAE

Table 2.3 KHDA Six levels of Quality Framework (KHDA 2016)

Figure 3.1 KHDA Self-evaluation cycle (KHDA 2016)

2.11.4 ADEC quality assurance process, framework and inspection

Abu Dhabi Education Council (ADEC) is an educational authority responsible for managing, guiding, adopting and implementing different educational development strategies in Abu Dhabi. They have a vision to achieve a world-class education system which provides support to all learners, enabling them to remain competitive globally. In 2010, ADEC established the Private School and Quality Assurance (PSQA) sector charged with monitoring all private schools in Abu Dhabi and increasing student access (ADEC 2016).

The PSQA sector is in line with ADEC's mission by providing students with the necessary knowledge, skills and attitudes to improve the quality of education PSQA strategic plan 2013/2017 centers on three important areas – quality and academic outcomes, non-academic outcomes and national identity, and access and affordability. Since 2008, ADEC has carried out inspections on all private schools. School inspection is facilitated due to its importance to the government in ascertaining the quality of schools by measuring its strengths and weaknesses. It also provides board members the opportunity to implement external evaluation (ADEC 2016).

ADEC makes use of the Irtiqa'a Framework which states that all licensed schools get inspected every two years; all accredited schools get inspected every five years and all new schools get inspected within few months of opening (ADEC 2012). Schools are usually inspected by a

team of inspectors over a period of four days. However, the size of the school and the number of inspections determine how long the inspection will take. The use of self-evaluation form (SEF) is an important feature of ADEC's inspection (ADEC 2012).

Figure 3.2 ADEC's Inspection and Monitoring Cycle
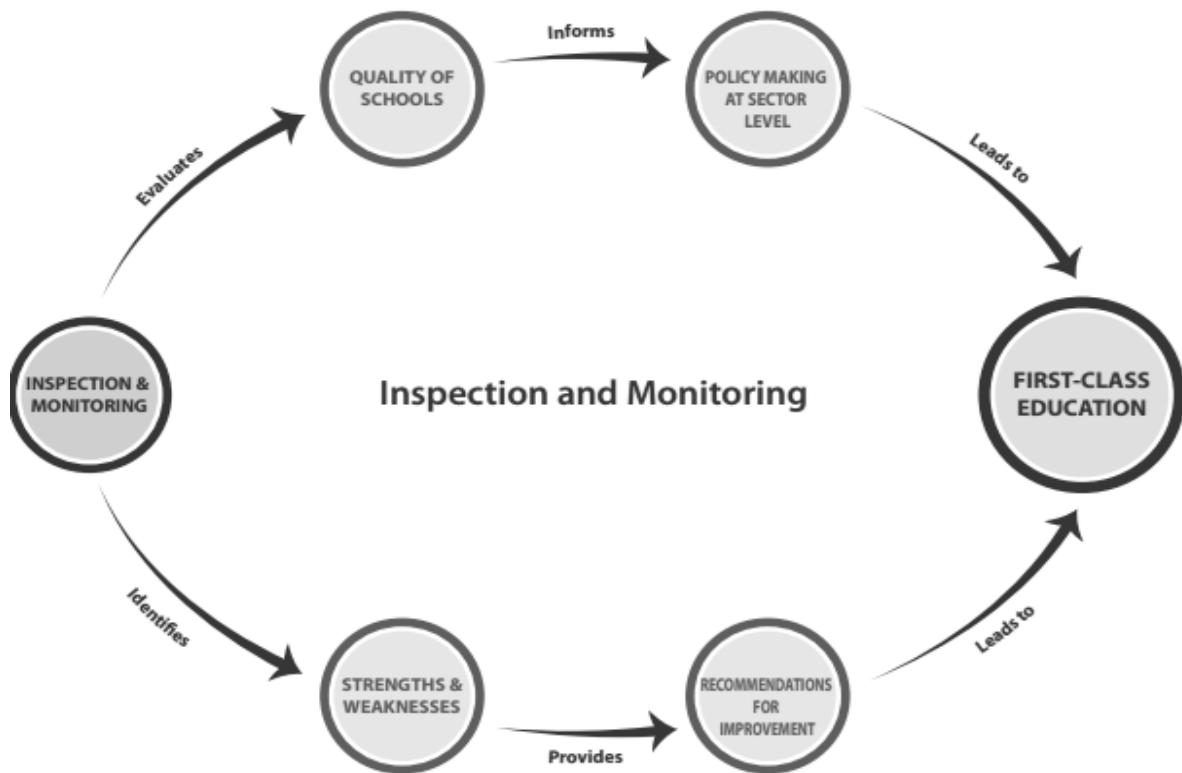
Source: ADEC (2016)

2.11.5 UAE unified New inspection framework: development and critique

UAE's vision 2021 is geared towards achieving high quality education. To achieve this, the UAE must adopt a high-quality assessment system to evaluate the performance of schools. In view of this the UAE School Inspection Framework applies a comprehensive approach in measuring quality education. Core values of the UAE's Inspection service include commitment, excellence, transparency and cooperation (KHDA Inspection Framework, 2015). The UAE inspection framework for the educational sector is therefore a step in the direction to redirect all efforts towards key human resource development benchmarks; particularly, the achievement of a first-rate education system.

The UAE School Inspection Framework 2015-2016 was introduced by the Ministry of Education to state the new standards by which schools will be measured (The National 2015). The unified system allows private schools to be graded using a six-point scale – very weak,

weak, acceptable, good, very good or outstanding, rather than an eight-point scale graded from poor to outstanding (The National, 2015; KHDA Inspection Framework 2015). The following are some of the performance standards evaluated by inspectors – (1) student achievement; (2) personal and social development and innovation skills; (3) teaching and assessment; (4) curriculum; (5) care, protection, guidance and support; (6) and leadership and management. This framework emphasizes on innovation, inclusive education, entrepreneurship and national culture (The National 2015). A total of 17 indicators are established based on these performance metrics.

It is important to emphasize that the unified framework was not only an addition to already existing frameworks but to ensure that the educational standards in the region are strengthened and that consistency in measurement is achieved (The National 2015). The National (2015) emphasize that main challenge surrounds the implementation of this framework is the different sets of curricula in the region. Ultimately, to secure a common standard of performance across curricula and Emirates, it is important to adopt a level playing field. Moreover, the various Emirates have their own regulations surrounding the implementation of inspection frameworks. The Ministry of Education (2017) reports that the new criteria or framework is applicable to a total of 162 institutions in the first phase of school evaluation process using the new framework in the education development plan.

As a quality metric, the UAE inspection framework abides by a key set of principles similar to the KHDA and ADEC frameworks. In terms of structure, key performance standards inform a total of 17 indicators which are refined in a specific set of elements. Brief descriptions are offered based on which any institution may be rated as outstanding or weak. Illustrations are also offered to provide a more detailed overview of the practice and at selected performance levels. It is essential to note that the UAE framework was built out of the KHDS framework and share key similarities with regards to overall performance criteria, indicators, measurements and overall description.

2.12 Chapter Summary and Conclusion

The chapter presents a complete summary of theoretical components of the research model. An attempt is also made to discuss key inter-relationships that support the research hypotheses. Ensuring that the study conforms and falls in line with literature definitions of employed variables is particularly important to validity of the study. To ensure that what is being

measured is actually measured, the chapter helps pay attention to previous work conducted on all areas of the framework. The next chapter pays some attention to the scope and context of the study; the UAE inspection framework among other efforts made by the UAE towards knowledge based economic development are presented.

CHAPTER THREE: RESEARCH METHODOLOGY

The chapter presents methodological underpinnings of the study. The chapter commences with the research approach and key methods, site, sampling and participants, data collection tools, and ethical consideration. Other areas include the measurements of variables are presented on the main indicators used to measure the main dimensions of the study. The sources of data, data analysis techniques, reliability and validity are also presented.

3.1 Research Approach

The positivist position of research paradigm fits the present study attempt to adopt objective standards and metrics in establishing evidence. According to Hussey & Hussey (1997), this position is in line with the assumption that knowledge must be established using objective standards of research. In order words, this position fits the positivist epistemological position that any attempt to conduct an investigation must consider the use of methods that are scientific, objective and replicable in nature. Even though Crotty (1998) and Blaikie, (2000) mention that the area of philosophical position cannot be backed by empirical evidence, it is important that this is in line with the researchers' beliefs about how evidence must be established.

Aside from the philosophical considerations, it must be added that the research design takes into consideration the purpose classification of the study. According to Saunders et al. (2012), studies may be categorized into three main areas depending on their purpose; descriptive, explanatory and exploratory studies. As the name implies, descriptive studies pay attention to the elaboration on an area without the need to test any form of inter-relationships. Exploratory studies on the other hand attempt to consider an area with little understanding and presence in literature. It may be observed that the research questions of the study are explanatory in nature as they seek to observe the relationship between two or more variables of the study (Table 3.1). In Table 3.1, the various research hypotheses are categorized under the varied research questions.

Hypotheses	Purpose Class	Approach & Method	Analysis
H1a: Quality assurance processes have a positive and significant effect on school transformation	Explanatory	Quantitative & Survey	Statistical (Multiple Regression)
H1b: Quality assurance processes have a positive and significant effect on school performance	Explanatory	Quantitative & Survey	Statistical (Multiple Regression)
H2a: UAE school inspection framework have a positive and significant effect on school transformation	Explanatory	Quantitative & Survey	Statistical (Multiple Regression)
H2b: UAE school inspection framework have a positive and significant effect on school performance	Explanatory	Quantitative & Survey	Statistical (Multiple Regression)
H3: School transformation has a positive and significant effect on school performance.	Explanatory	Quantitative & Survey	Statistical (Multiple Regression)
H4: UAE school inspection framework has a positive correlation with school quality assurance metrics.	Explanatory	Quantitative & Survey	Statistical (Pearson's Correlation)

Table 3.1 Research Hypotheses

The present study is quantitative in nature as it collects evidence with the help of the survey research strategy by adopting the structured survey questionnaire. The quantitative and qualitative research approaches have been observed as the two main ends of the research continuum with regards to how investigations are conducted. Even though the research design and approach are not strictly associated (Creswell 2009; Saunders et al. 2012), the research design may have particular inclination to the research approach to be used. An instance is that a positivist ontological position and an objectivist epistemology would most likely be quantitative in nature as this approach fits the underlying assumptions of the research philosophy.

As observed, the quantitative methodology has a higher inclination to the use of numbers whilst the qualitative research approach has the tendency to use subjective cues to establish empirical evidence (Creswell & Plano Clark 2007). The use of numbers in the quantitative approach is essential to arrive at the desired results to permit an objective and scientific approach to investigation. This approach suits the use of hypotheses in a conceptual framework with well-informed constructs for investigation. The quantitative approach will help arrive at conclusive relationships between the variables in testing the hypotheses.

Among the key research strategies under consideration, the survey research strategy has evolved as one that permits the collection of data from a large pool of audience whist paying attention to key areas of research reliability, credibility and validity (Yin 2003). The survey research strategy is again considered as it helps measure contemporary events as and when they occur without direct interference of the researcher or any other person. The need to ensure that findings are objective depend on the ability to exclude all forms of interference from the main results and findings. This leads to the establishment of more authoritative conclusions.

3.2 Sampling & Participants

Population of the study has been defined as the complete census of all participants of the study (Sekaran 2003). At the center of the present study, all teachers or faculty members in the United Arab Emirates (UAE) schools. Particular attention is paid to institutions between the grades of FS and Grade 12. This population covers kindergarten, lower primary, upper primary and secondary schools in the UAE. According to the Ministry of Education (MOE), the total number of teachers in public and private institutions across the United Arab Emirates by the end of 2015 is about 83,927 teachers in the entire UAE (MOE). In order to arrive at a credible sampling frame for the study, all American schools listed and graded by the Knowledge and Human Development Authority (KHDA) for the 2015-2016 academic year were considered.

A total list of about 16,600 teachers in 150 Dubai Schools were therefore considered. This number makes up the majority of the 169 total private institutions in the Emirate as reported by MOE (2016). To arrive at a more uniform set of institutions, particular focus is on all American Schools or schools with American curriculum in Dubai. A total of 35 institutions were therefore considered; these institutions account for about 21% of the total number of schools in Dubai. Considering the entire population of teachers attributed to the Dubai Educational Zone, American Schools may be observed to have about 3,870 teaching staff. This population of teachers in American schools in Dubai is considered in event of the need for generalizability.

3.2.1 Sample Size
To ensure that the sample is generalizable, there was the need to factor in the main population size of 3,870 teachers as present in the 35 Dubai schools with American curriculum. Considering equal proportions in a normal distribution, Kothari (2004) proposes that this population size must have a minimum sample size of about 350 teachers based on an error

margin of 5% and a confidence interval of 95%. However, considering it is very unlikely that all responses will be received, a 10% additional sample was considered. This was essential to take care of sampling error as advised by Saunders et al., (2012). The final and actual sample size of the study was **385 teachers**.

3.2.2 Sampling Technique

The appropriate sampling technique takes into consideration the need for representativeness. Considering attention is on school transformation and performance, the latest ratings of the schools in 2015-2016 were used. The stratified proportional sampling techniques was employed to permit equal chance of all members of the population from participating in the study. The proportions of samples and associated sample proportions are presented in Table 3.2.

Institution Ratings	N	%	Sample (n)
Outstanding	1	2.86%	11
Very Good	-	0.00%	0
Good	13	37.14%	143
Acceptable	12	34.29%	132
Weak	3	8.57%	33
Not Applicable	6	17.14	66
Total	*35*	*100*	*385*

Table 3.2 Stratified Proportional Sampling of American Schools in Dubai

3.3 Instruments – Questionnaire

All research questions and hypotheses were answered with the help of primary data gathered using the questionnaire (Appendix 1). The questionnaire was developed based on key sources surrounding the main dimensions and variables of the study. The survey question consists of three main sections; Section one requested data pertaining to participants' demographics data. Main demographic areas include gender, age and grade of teachers. The next main section observes the main independent variables of the study. These include measurement of quality assurance metrics in schools as well as the measurement of UAE inspection framework as observed by the institution. Section three presents the main dependent variables of the study. These include institutional transformation and institutional performance.

As observed, key variables measured in the model include school quality assurance metrics, UAE Inspection Framework, Institutional Transformation and Intuitional Performance. School

Quality Assurance is defined based on assertions made by Maguad (1999), Slater (2013), Salih (2008), Faubert (2009) and Bialecki et al. (2002). The UAE inspection framework is defined based on the 17 indicators in the 6 performance areas as observed by MOE (2017). Institutional transformation is defined by Hicks (2007a) and Partnership for 21st Century Skills (2009) regarding the need for school transformation if the school will remain competitive according to global standards, and finally performance is defined based on traditional UAE Framework performance areas (KHDA Inspection Framework 2015; MoE, 2016).

Indicators	Source
School Quality Assurance	
1. Effectiveness (Quality: grades of graduating students)	Salih (2008); Faubert (2009)
2. Staff Efficiency (classroom level)	Salih (2008); Faubert (2009)
3. Professional school environment	Faubert (2009)
4. School and Community (stakeholders)	Faubert (2009)
5. Productivity	Salih (2008)
6. Contact Hours	Salih (2008)
UAE Framework Inspection Indicators	
1. Student learning Skills	MoE (2016)
2. Understanding of Islamic Values	MoE (2016)
3. Teaching for Effective Learning	MoE (2016)
4. Curriculum adaptation	MoE (2016)
5. Child Safeguarding	MoE (2016)
6. School Governance	MoE (2016)
Educational/ School Transformation Metrics	
1. Environmental Education	Standish (2014)
2. Family and Consumer education	Standish (2014)
3. Learning Skills	Standish (2014)
4. Social Relationship Skills	Standish (2014)
5. Tolerance	Standish (2014)
6. Sustainability	Standish (2014)
School Performance	
1. Student Achievement	KHDA (2015); MoE (2016)
2. Student Personal development	KHDA (2015); MoE (2016)
3. Teaching and assessment	KHDA (2015); MoE (2016)
4. Curriculum	KHDA (2015); MoE (2016)
5. Protection	KHDA (2015); MoE (2016)
6. Leadership and management	KHDA (2015); MoE (2016)

Table 3.3 Measurement of Variables

It is important to emphasize that the use of UAE Framework indicators to measure the UAE Framework instead of the 6 performance areas was justified by the fact that school performance was another dimension on the model which put the performance indicators to better use.

Reserving the main UAE Framework performance indicators for the measurement of school performance helped observe the degree to which the UAE Framework indicators helped meet the original performance criteria. This resulted in more insightful analysis which was used to test the validity of the new UAE Framework with regards to its paratactically in the UAE educational terrain.

Following from these discussions, it may be observed that measures are provided for the collection and usage of primary data Even though the primary and secondary data sources have been proposed as two main categories of sources for answering any set of research questions (Sekaran 2003), the primary data was considered highly suitable considering the availability of required data in this area. Whether primary, secondary data or the combination of both data formats, it is important to note that secondary data are not entirely collected for the main purpose of any study but may still be considered useful dependent on the study data requirements. The present study did not find the need for any form of secondary data but collected primary data to directly answer the research questions.

3.4 Pilot Study and Research Credibility

A pilot study was conducted prior to the main data collection of the study. All constructs were observed for reliability using Cronbach Alpha test for internal consistency. Cronbach alpha value of above .7 was considered as acceptable, especially for low stake academic testing, as observed by Panayides (2013). According to Saunders et al (2012), validity is defined as the degree to which a test actually measures what is it intended to measure. Easter by-Smith et al (1991) argues that the validity of a research "pertains to the extent to which measures are installed to gain full access to knowledge and meaning of participants." A validity construct indicates that all items were taken from well-sourced journals and has been empirically tested. The reliability results are presented in Table 3.4. All dimensions of the model proved statistically significant as presented in Table 3.4. All dimensions had an alpha value of above .7. Only UAE Inspection Framework had a slightly below consistent value of .7; this was however maintained for the main analysis.

Factors	N	Alpha Value
Quality Assurance	6	.803
UAE Inspection Framework	6	.686
School Transformation	6	.754
School Performance	6	.729

Table 4.3 Reliability Statistics

3.5 Main Data Collection

Data was collected using Google Forms online data collection platform. After the pilot investigation, the form or questionnaire was revised and emailed to carefully selected participants. In each of the strata presented, participants were randomly selected using simple random sampling technique. This is in line with the stratified proportional sampling technique. Collecting data online help reduce errors of data collection, interviewer errors and other errors of data entry (Saunders et al. 2012). It was important to gain informed consent by adequately informing participants about the aim of the study and why it was being conducted. This was essential to the ethical considerations of the study (Creswell 2009). All participants were given a period of three weeks to respond to the survey questionnaire. Reminders were sent on a weekly basis to encourage participants to respond.

3.6 Data Analyses Methods

Key analytical methods of the study are presented in Table 4.1 together with the study hypotheses. Data collected over Google Forms was downloaded in the form of Microsoft Office Excel Version 2016 file. The Office Excel output was uploaded into IBM SPSS Statistic Software version 23. This helped analyze data and perform all required forms of analyses using this program. To enable analysis, quantitative data was first coded, cleaned and tested for reliability and normality. Main form of analysis performed is the multiple regression analysis. This analysis remains a function of IBM SPSS Statistics 23.

3.7 Ethical Considerations

Even though no direct ethical issues exit within the study, obtaining informed consent prior to participation has become an important aspect of research ethics (Creswell 2009; Bhattacharyya, 2004. A participant letter and an informed consent form are attached to Appendix 2, 3 and 4; these letters and sheets were offered to participants in order to adequately inform them and ask for consent. After the list from the Ministry of Education was used to sample respondents, the various American institutions were sent letters to gain permission from the various institutions. Leveraging on the informal relationships between the researcher and the schools, formal permission was gained in all institutions in a brief period of time.

After gaining approval at the institutional level, the individual respondents were also sent various letters of participation. In addition to this, the informed consent form was entered onto the online form such that respondents had to agree to participate prior to actual participation.

CHAPTER FOUR: RESULTS AND FINDINGS

The results and findings of the study are presented in this chapter. The chapter commences with a summary of data, descriptive statistics and reliability tests. The various research questions are answered in the mid sections of the chapter. Main areas include the contribution of quality assurance to the transformation and performance of schools in UAE, the contribution of UAE School inspection framework on the transformation and performance of schools in UAE, the contribution of institutional transformation to performance, and finally the assessment of whether or not the UAE school inspection framework qualifies as a quality assurance tool.

4.1 Demographics and Data Summary

A summary of data collected is presented in this section. The demographics are presented followed by the descriptive statistics of main variables of the study, and finally the reliability statistics. Out of an originally anticipated sample of 385 participants, only 347 valid responses were received. This accounts for 90.1% of the total responses. As observed in the previous chapter, responses were encouraged due to the researcher's connections mainly with American schools in Dubai.

4.1.1 Demographics

In presenting key demographics, it is important to highlight that the data was guided by the stratified proportional sample design; the responded categories are therefore in this format even though a few non-responses may be observed in each category of school ratings (Table 4.1). Most of the teachers were male as this accounted for 70% of respondents. A total of 209 of the respondents were also between the ages of 25-34 years; this accounted for about 60% of them. Regarding grades thought by the teachers, most of the participating teachers were in charge of students between Grade Seven and Grade Nine; 125 teachers of valid responses were in this category and this accounted for about 36%. Teachers in Grades 4-6 followed, accounting or 21% of total respondents.

		Frequency	Percent
School Ranking of Respondent	Outstanding	10	2.9
	Very Good	1	0.3
	Good	142	40.9
	Acceptable	97	28
	Weak	55	15.9
	Not Applicable	42	12.1
Gender	Male	243	70
	Female	104	30
Age	18-24 years	32	9.2
	25-34 years	209	60.2
	35-44 years	55	15.9
	45-54	42	12.1
	55 or above	9	2.6
Grade	FS1-FS2	54	15.6
	Grade 1 - Grade 3	58	16.7
	Grade 4 - Grade 6	73	21
	Grade 7 - Grade 9	125	36
	Grade 10 - Grade 12	37	10.7
	Total	347	100

Table 4.1 Demographic Statistics

4.1.2 Descriptive Statistics of Main Variables

The descriptive statistics for the data are summarized in Table 4.2. Aside from the main demographics of the study, the remaining aspects of the questionnaire gathered data in four main areas of quality assurance, UAE Inspection, School Transformation, and School Performance. Each dimension was presented on the research model and measured using 6 indicators. The mean statistics, rankings, variances and raking within their respective dimensions are presented as part of the Table.

It is important to also recall that the indicators were measured over a five-point Likert Scale and so the mid-point mean for all indicators was considered as 2.5. With this mid-point mean, the table below shows that all indicators measured ranked above average. Under Quality Assurance, contact hours ranked highest with a mean of 4.22; hence it was the most important among the six indicators; the lowest ranked indicator under this dimension was consideration of professional school as a quality assurance metric; this had a mean value of 3.29.

Under UAE Inspection Indicators as a dimension on the research model, child safeguarding ranked highest among the six indicators with a mean of 4.14. The lowest ranked indicator under UAE inspection indicator was student learning skills with a mean of 3.65. The third dimension on the list was school transformation; governance reported a mean value of 4.04 and was the highest ranked indicator; mainly, respondents were asked whether tolerance forms a central aspect of school management and teaching practices. School relationship skills ranked lowest as the schools might be less concerned about helping faculty members and students build good social relationship skills; the respondents nonetheless agreed to this statement.

S/N	Factors	Mean	Rank	Std. D	Var.
	Quality Assurance = 3.9308				
1	Staff Efficiency	3.94	4th	1.041	1.083
2	Professional School Environment	3.29	6th	1.379	1.902
3	Effectiveness	3.91	5th	1.146	1.313
4	School and Community	4.10	3rd	1.032	1.066
5	Contact Hours	4.22	1st	.709	.503
6	Productivity	4.12	2nd	.832	.693
	UAE Inspection Indicators = 3.91				
1	Student Learning Skills	3.65	6th	1.269	1.609
2	Understanding of Islamic Values	3.93	4th	1.058	1.120
3	Teaching for Effective Learning	4.01	3rd	.997	.994
4	Curriculum Adaptation	3.68	5th	1.208	1.460
5	Child Safeguarding	4.14	1st	.769	.591
6	School Governance	4.03	2nd	1.010	1.019
	School Transformation = 3.6085				
1	Environmental Education	3.19	5th	1.38	1.904
2	Family and Consumer Education	4.01	2nd	0.826	0.682
3	Learning Skills	3.9	3rd	0.799	0.638
4	Social Relationship Skills	3.02	6th	0.934	0.873
5	Governance	4.04	1st	0.834	0.695
6	Sustainability	3.5	4th	0.891	0.794
	School Performance = 3.8477				
1	Student Achievement	3.80	4th	.926	.857
2	Student Personal development	3.50	6th	1.14	1.30
3	Teaching and assessment	3.86	3rd	1.06	1.12
4	Curriculum	3.64	5th	1.02	1.04
5	Protection	4.13	2nd	.882	.778
6	Leadership and management	4.15	1st	.788	.621

Table 4.2 Descriptive Statistics of Main Variables

For the very last dimension, school performance was measured. Results indicate that the performance of leadership and management ranked highest with a mean value of 4.15, protection of teachers and students followed with a mean value of 4.13. Student personal development ranked last in this dimension as a measure of performance with a mean value of 3.50; here, respondents were asked the degree of personal and cultural development of students in their institution.

In addition, the test for overall means were also conducted as expressed in Table 4.2. School quality assurance had overall highest mean statistic of 3.93; this was followed by UAE Inspection Framework Indicators with 3.91, school performance at 3.85, and School transformation at 3.61. Overall, it may be observed that respondents generally agreed to all the items or indicators on the questionnaire. The remaining sections of the analysis present the results in order of the main research questions; it mainly observes that inter-relationship between these dimensions using relevant statistical techniques.

4.1.3 Parametric Analysis

A number of parametric analysis were conducted to observe the differences in category groups with regards to the main variables under observation. Table 4.3 serves differences in school ratings with regards to the four main variables in the model; essentially, it was observed whether or not any significant difference exists among school ratings with regards to school assurance quality, inspection framework indicators, school transformation and school performance. Findings indicate that the groups of school ratings are not significantly different on the four main variables under observation. This is true for all tests of Pillai's Trace, Wilks' Lambda, Hotelling's Trace and Roy's Largest Root.

Effect		Value	F	Hypothesis df	Error df	Sig.
School	Pillai's Trace	.044	.751	20.000	1364.000	.774
Rating	Wilks' Lambda	.957	.749	20.000	1121.969	.777
	Hotelling's Trace	.044	.747	20.000	1346.000	.779
	Roy's Largest Root	.025	1.717[c]	5.000	341.000	.130

Table 4.3 Multivariate Test for differences among school ratings.

Note: Dependent variables include school quality assurance, UAE school inspection indicators, school transformation and school performance

Another test for differences using gender as the main independent category group revealed that no statistically significant difference exists between male and female with regards to the four main variables under observation.

Effect		Value	F	Hypothesis df	Error df	Sig.
Gender	Pillai's Trace	.024	2.074[b]	4.000	342.000	.084
	Wilks' Lambda	.976	2.074[b]	4.000	342.000	.084
	Hotelling's Trace	.024	2.074[b]	4.000	342.000	.084
	Roy's Largest Root	.024	2.074[b]	4.000	342.000	.084

Table 4.4 Multivariate Test for differences among respondents' gender

Note: Dependent variables include school quality assurance, UAE school inspection indicators, school transformation and school performance

A third test for differences was observed considering age as a main independent group; results are presented in Table 4.5. The age groups proved significantly different from each other as all the tests for Pillai's Trace, Wilks' Lambda, Hotelling's Trace and Roy's Largest Root were statistically significant (Table 4.5).

Effect		Value	F	Hypothesis df	Error df	Sig.
Age	Pillai's Trace	.156	3.470	16.000	1368.000	.000
	Wilks' Lambda	.851	3.525	16.000	1036.300	.000
	Hotelling's Trace	.168	3.547	16.000	1350.000	.000
	Roy's Largest Root	.094	8.051[c]	4.000	342.000	.000

Table 4.5 Multivariate Test for differences among respondents' age

Note: Dependent variables include school quality assurance, UAE school inspection indicators, school transformation and school performance

The main category groupings registered were mapped on a Tukeys HSD and Tukey B post hoc analysis revealed that the gender groups were significantly different in all four variables under observation. Respondents who were aged 55 years or above particularly offered low responses for quality assurance, UAE inspection indicators and school transformation. Low aged respondents rated significantly low on school performance.

The last test for differences was observed. Here, the differences among the five main groups of grades measured on the survey questionnaire was observed. The grades groups appeared as significantly different from each other as revealed by the test results presented in Table 4.6. Further assessment revealed that main differences exist in the areas of school quality assurance

and school performance. With school quality assurance, responses by teachers in Grates 4 – 6 appeared as significantly lower than responses provided by teachers of Grade 10-12. With regards to school performance levels, Grades 7-9 ranked significantly lower than Grades 1-3.

Effect		Value	F	Hypothesis df	Error df	Sig.
Grade of Teacher	Pillai's Trace	.154	3.432	16.000	1368.000	.000
	Wilks' Lambda	.852	3.493	16.000	1036.300	.000
	Hotelling's Trace	.167	3.521	16.000	1350.000	.000
	Roy's Largest Root	.108	9.262[c]	4.000	342.000	.000

Table 4.6 Multivariate Test for differences among Teachers' grade

Note: Dependent variables include school quality assurance, UAE school inspection indicators, school transformation and school performance

4.2 Quality Assurance, School Transformation and Performance

The first research question had two main hypotheses under observation; these hypotheses sought to observe the effect of quality assurance on school transformation and performance. Considering results in context of American schools in Dubai, the regression analysis for these hypotheses are presented in Table 4.7 and 4.8. The main independent variable in the regression analysis was the 6 elements of quality assurance in a multiple regression analysis. The main dependent variable was based on the two measures of school transformation in Table 4.7 and school performance in Table 4.8.

A summary of the results from the regression analysis on the influence of quality assurance on school transformation is presented in Table 4.7. The model summary shows that the model accounts for 16.1% of the variance in school transformation. The adjusted R-Squared statistic also stands at 14.6% which is low but statistically significant in the ANOVA results presented beneath these figures. From the ANOVA results, it is shown that the model is statistically significant and has F-Statistic of 30.61. It is however important to note that only professional school environment demonstrated a statistical significance in the model.

The unstandardized coefficients of the independent variables show that professional school environment has a statistically significant association with the dependent variable, which is school transformation. An unstandardized coefficient statistic of 0.160 shows that school quality assurance has a positive influence on school transformation.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.401	.161	.146	.59731

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	23.218	6	3.870	10.846	.000
	Residual	121.304	340	.357		
	Total	144.522	346			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	3.309	.237		13.935	.000
	Effectiveness (Quality: grades of graduating students)	-.034	.046	-.055	-.740	.460
	Staff Efficiency (classroom level)	.056	.039	.120	1.455	.147
	Professional school environment	.160	.042	.284	3.844	.000
	School and Community (stakeholders)	.073	.040	.117	1.809	.071
	Productivity	-.087	.054	-.096	-1.602	.110
	Contact Hours	-.075	.048	-.096	-1.569	.117

Dependent Variable: Composite Mean: School Transformation

Table 4.7 Regression Summary: Quality Assurance and School Transformation

Table 4.8 presents the regression statistics for the impact of quality assurance on school performance; it may be observed from the model summary that the model accounts for 26.6% of the variance in school performance. ANOVA results indicate that the difference between key variables of the multiple regression model is statistically significant. An observation of the unstandardized coefficients however reveals that School and Community (stakeholders) (B = 0.090, $p<0.05$), Productivity (B = 0.1110, $p<0.05$) and Contact Hours (B = 0.102, $p<0.05$) are valid predictors of the regression model.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.515	.266	.253	.54994

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.211	6	6.202	20.506	.000
	Residual	102.828	340	.302		
	Total	140.039	346			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.932	.219		8.840	.000
	Effectiveness (Quality: grades of graduating students)	.070	.043	.114	1.638	.102
	Staff Efficiency (classroom level)	.065	.035	.141	1.838	.067
	Professional school environment	.043	.038	.078	1.131	.259
	School and Community (stakeholders)	.090	.037	.146	2.419	.016
	Productivity	.111	.050	.123	2.205	.028
	Contact Hours	.102	.044	.133	2.322	.021

Dependent Variable: Composite Mean: School Performance

Table 4.8 Regression Summary: Quality Assurance and School Performance

4.3 UAE School Inspection Framework, School Transformation and Performance

The second research question had two other hypotheses under observation; these relate to the impact of UAE inspection Framework Indicators on school transformation (Table 4.9) and school performance (Table 4.10). Both regression models are statistically significant even though different sets of indicators may be identified. The regression analysis was performed to determine the impact of the indicators on the dependent variable. For the impact of UAE Inspection Framework Indicators on school transformation, regression analysis revealed that

student learning Skills (B = 0.125, p < 0.05), understanding of Islamic values (B = 0.210, p < 0.05), curriculum adaptation (B = -0.109, p < 0.05) and child safeguarding (B = 0.127, p < 0.05), were significant predictors of the model. It may be noted that curriculum adaptation was particularly negatively associated with school transformation. The remaining indicators were not statistically significant. An R squared value of .294 was also obtained and this implies that the data points fits the regression line to a below average extent. In order words, the extent of variation in the dependent variable that is explained by the independent variables in the model.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.542	.294	.281	.54792

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	42.449	6	7.075	23.566	.000
	Residual	102.073	340	.300		
	Total	144.522	346			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.063	.225		9.158	.000
	Student learning Skills	.125	.031	.245	4.069	.000
	Understanding of Islamic Values	.210	.040	.344	5.241	.000
	Teaching for Effective Learning	.055	.040	.085	1.386	.167
	Curriculum adaptation	-.109	.028	-.204	-3.824	.000
	Child Safeguarding	.127	.042	.151	3.063	.002
	School Governance	-.020	.031	-.031	-.647	.518

Dependent Variable: Composite Mean: School Transformation

Table 4.9 Regression Summary: UAE Inspection Framework and School Transformation

With regards to the second hypotheses under the second research question, a higher R squared statistic was observed after regression analysis was performed, and this was significant at the $p < 0.05$ threshold for the ANOVA results. Coefficients of the model also indicate only school

governance and child safeguarding are statistically significant independent variables in the model. Both are positive predictors of school performance.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.609[a]	.370	.359	.50925

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	51.865	6	8.644	33.332	.000
	Residual	88.174	340	.259		
	Total	140.039	346			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.249	.209		5.965	.000
	Student learning Skills	.000	.028	-.001	-.017	.987
	Understanding of Islamic Values	.006	.037	.010	.164	.870
	Teaching for Effective Learning	.025	.037	.039	.670	.503
	Curriculum adaptation	-.005	.026	-.010	-.206	.837
	Child Safeguarding	.376	.039	.454	9.729	.000
	School Governance	.234	.029	.371	8.155	.000

Dependent Variable: Composite Mean: School Performance

Table 4.10 Regression Summary: UAE Inspection Framework and School Performance

4.4 School Transformation and School Performance

The last regression analysis was conducted on the impact of school transformation on school performance. Results on this area are presented in Table 4.11. Considering all the elements of school transformation, only sustainability predicts school performance in the multiple regression model. The regression model was originally significant but extremely low with an R squared value of .133. This implies that a mere 13.3% of the variance may be explained by the independent variables in the model; the adjusted R squared statistic also indicate that 11.3%

of school performance is actually explained by the indicators that actually predict school performance. Ultimately, sustainability has a positive and moderate influence on school performance even though this is nearly insignificant.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.365[a]	.133	.118	.59744

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.680	6	3.113	8.723	.000
	Residual	121.359	340	.357		
	Total	140.039	346			

Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	2.634	.217		12.113	.000
	Environmental Education	.009	.029	.019	.294	.769
	Family and Consumer education	.041	.068	.054	.612	.541
	Learning Skills	.075	.051	.094	1.466	.143
	Social Relationship Skills	.026	.042	.038	.608	.543
	Tolerance	-.038	.060	-.050	-.633	.527
	Sustainability	.230	.037	.322	6.279	.000

Dependent Variable: Composite Mean: School Performance

Table 4.11 Regression Summary: School Transformation and School Performance

4.5 UAE School Inspection Framework as a School Quality Assurance metric

The last research question sought to observe the UAE inspection framework as a quality assurance metric. Here, the test for correlation was conducted to observe whether or not an association in the form of correlation exists. Results on this area is presented in Table 4.8. The Pearson Product moment correlation was run. Results indicate that a positive and significant association in the form of correlation exists between school quality assurance metrics and the

UAE Inspection framework (Table 4.8). Ultimately, .348 correlation exists between the two independent variables and this may be considered as moderate correlation.

		Composite Mean: UAE Inspection Indicators	Composite Mean: School Quality Assurance
Composite Mean: UAE Inspection Indicators	Pearson Correlation	1	.348
	Sig. (2-tailed)		.000
	N	347	347
Composite Mean: School Quality Assurance	Pearson Correlation	.348	1
	Sig. (2-tailed)	.000	
	N	347	347

Table 4.12 Correlation: UAE School Inspection and School Quality Assurance

CHAPTER FIVE: DISCUSSIONS, CONCLUSION AND RECOMMENDATIONS

In this chapter, a general discussion and more specific implications are presented. Implications are offered in both areas of theory and practice. Conclusions and recommendations of the study are also offered in this chapter. The section commences with key discussions of results and their implications to both theory and practice. Key conclusions are then presented with particular regards to the main objectives of the study. The recommendations are also offered with regards to theoretical and practical stakeholders of the study. Conclusions and recommendations are based on the results and findings of the study as well as discussions of these results in the preceding chapter of the study.

5.1 Discussion of Results

Considering findings pertaining to the four main research questions presented in this chapter key discussion and implications may be inferred both theoretically and practically. With regards to the first and second hypotheses, the contribution of quality assurance methods to school transformation and performance have been observed by Slater (2013), Faubert (2009), Harris (2007) and Bialecki et al. (2002) concerning the overall contribution of quality assurance

to school development. The only difference is that the school development in the present study is measured using both elements of school transformation and school performance.

Ultimately, results in this area are basically affirmed as various elements of quality assurance and the UAE inspection indicators evolved as significant predictors of school transformation and school performance. However, concerning the impact of quality assurance on school transformation, only professional school environment emerged with a significant impact on school transformation. This implies that whiles quality assurance leads to school transformation, only professional school environment actually plays a role in this relationship and the other indicators of quality assurance do not actually contribute to school transformation to a significant extent.

Using the multiple regression approach is essential as it observes the interaction of the independent variables in the predictive models. This is particularly essential considering the school environment exists as an entity and any implementation or consideration of variables are done in a holistic manner and not separate applications (Slater, 2013).

The third hypotheses also observed the impact of school transformation on institutional performance as supported by Hicks (2007a) and Partnership for 21st Century Skills (2009). Hicks (2007a) and Partnership for 21st Century Skills (2009) mainly argue that schools that transform will remain competitive and experience higher performance. This hypothesis is also affirmed even though only one school transformation indicator of "sustainability" was observed as a significant predictor of school performance. This implies that even though a number of transformation may be observed as ongoing in schools around the globe, only sustainability has an inclination to lead directly to performance. The other indicators may have associations with other school outcomes but not performance per se.

With regards to the final form of analysis, the association between the UAE school inspection framework and quality assurance metrics were observed. A moderate correlation of .348 was revealed between the two independent variables. Though the correlation was not a very strong one, this observation remains important considering the UAE Inspection Framework seeks to serve also as a quality assurance framework (MoE, 2016). The association between these dimensions proved statistically significant and this is not alarming but noteworthy considering many of the quality assurance metrics come from globally accredited inspection frameworks.

Salih (2008) for instance cites the application of key metrics in Canada and the United States that informed the measurement metrics of efficiency and effectiveness adapted in the present

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investigation. Slater (2013) on the other hand cites cases and practices in England, Netherlands, Canada, Australia, Singapore, Chile among others in their adherence to key metrics of school monitoring and evaluation. Slater (2013) in particular elaborated on the subject of quality assurance under the auspices of the CfBT Education Trust; a key non-profit institution in the areas of education quality and inspection. The CfBT Educational Trust, for instance, is a key partner of KHDA, especially in the British Schools Overseas inspection; an inspection approach adopted by the KHDA on special request by British Schools in Dubai.

Other studies on school inspection and evaluation frameworks have entered on a collective pool of popular practice among any group of countries or institutions. Faubert (2009) elaborated on the popular practices among OECD countries in order to arrive at key avenues for performance improvement. Ultimately, the association between school quality assurance metrics and the UAE Inspection Framework may be observed from the significant regression models presented in the previous earlier tables preceding the test for association.

Theoretically, the study contributes to insight on quality in schools and education such as those originally conducted by Green (1994) and Harvey & Green (1993). Rosa et al. (2012) emphasized that attention in this area is deserving and that quality tools in educational institutional development must be cemented. Conducting the study in the context of UAE also adds to the practical implications of findings. Insight on how the UAE school inspection framework indicators lead to the UAE inspection framework performance has been observed. Ultimately, the indicators may not be well aligned with the performance measures and further improvement may be recommended.

The last assertion may be inferred from the findings that only 2 among 6 UAE Framework indicators examined, appeared as statistically significant predictors of school performance. Considering school performance was measured using the performance criteria of the UAE Framework, these results are an eye opener to the need for enhancement or further alignment of indicators and performance criteria that define the UAE Framework. This is critical as it underlies the contribution of education quality as an underlying aspect of the United Arab Emirates knowledge agenda (UAE Government 2010).

5.2 Conclusion

Conclusions are established on the four main research questions that guided all areas of data collection and administration. In conclusion, it is important to ensure that these findings and related assessments were empirically tested for a sample of American Schools in Dubai. More work may be required to ensure consistency and results validation, especially in other regions and educational zones. On this note, it may be recalled that the main purpose of the investigation was to "to investigate the contribution of UAE School Inspection Framework (SIF) as a quality assurance tool to schools' transformation and performance improvements".

The first research question sought the extent to which quality assurance processes in education contribute in the transformation and performance of schools in UAE; it is concluded that professional school environment as a quality assurance metrics improves global transformation of American schools in Dubai. It is also concluded that school and community (stakeholders), productivity and contact hours are key quality assurance areas that actually lead to improvements in the performance of American schools in Dubai.

With the second research question, it is concluded that the UAE inspection framework drives school transformation and this is valid at least for American schools in Dubai. Important indicators of the UAE inspection framework that leads to this effect include student learning skills, understanding of Islamic values, curriculum adaptation and child safeguarding. It is however concluded that among the indicators of the UAE framework measured, curriculum adaptation impedes the schools' efforts in the area of transformation. The other indicators add positively to school transformation.

The third research question sought to observe the impact of school transformation on institutional performance. It is concluded that school transformation leads to school performance and this is valid for the transformational element of sustainability. Ultimately, if schools seek to transform in the area of sustainability, there is high likelihood that this will add to the school performance improvements. The last research question sought to observe the UAE Inspection framework as a quality assurance tool. It is concluded that the UAE inspection framework passes as a school quality assurance metric.

5.3 Limitations of the Study

One main limitation of the study is the time within which the study was supposed to be completed. The researcher was hard pressed with time with regards to the need to complete the

study within the academic calendar of the university. Meeting the main deadline was very challenging and the study was threatened due to the lack of time commitment. To overcome this challenge, the researcher had to take several days off work in the final weeks preceding the very final deadline set by the University. This helped complete the study in the stipulated time.

One other main limitation of the study was with regards to responsiveness. Considering there was limited available time, only 3 weeks was allocated to the collection of data from over 500 participants. A number of follow-ups had to be done to achieve the needed number of responses from the participants of the study. In addition to follow-ups there was the need to send reminders to participants in order to encourage responses. Finally, considering the survey was conducted at the end of year, teachers are not sure if this will affect their positions in schools in the following academic year. Based on practical experience of the researcher, teachers are very sensitive to KHDA issues.

5.4 Recommendations

5.4.1 Theoretical Recommendations

Future investigations must observe the transitional nature of quality or how one school ranks as outstanding and ranks subsequently as weak in an inspection within the immediate period that follows. This will help observe whether quality schools have a higher chance of maintaining quality or are at a constant threat of bad quality. Studies on this area must be conducted in a longitudinal assessment of school quality evolution over time. In addition to this, more factors must be introduced into the framework of the study; these include the role of leadership in school quality and the range of fees charged by the institution. A high fee range compared with others in the industry may facilitate increased perceived quality levels compared with a lower fee range. Moreover, school leadership may not just play the role of a pivot but may be observed as fundamental component of school quality assurance.

5.4.2 Practical Recommendations

Considering the study directly focuses on American schools in Dubai, this group remains central to these recommendations as key stakeholders. It is recommended that schools improve their ability to direct global transformation trends towards school performance. Currently, only sustainability as a school transformation indicator leads to performance. Other elements like environmental education, family and consumer education, leadership skills, relationship skills and tolerance are good elements which are increasingly gaining global recognition and cannot

be simply discarded by schools, ensuring that these areas make adequate contribution to performance is essential in the quest to remain competitive on the global platform.

It is also recommended that further attempt must be employed to align the UAE Inspection framework indicators with the metrics of school performance. As part of the study, the UAE school inspection framework indicators were used to measure school inspection whilst the school performance was measured using the same performance indicators on the UAE inspection framework. Results in this area were very insightful as the indicators of the UAE school inspection framework were matched against the performance metrics; nonetheless, improvements in the area is recommended as only 2 out of 6 indicators used were statistically significant. It is recommended that the ministry improves in areas of how student learning skills, understanding of Islamic values, teaching for effective learning and curriculum adaptation contributes to performance. Further research by the ministry should examine other remaining 11 indicators on how they contribute to school performance in UAE.

References

Abu Dhabi Education Council (2012). *Iritiqa'a framework: for the inspection of private schools in the emirate of Abu Dhabi.* Abu Dhabi: Abu Dhabi Education Council.

Abu Dhabi Education Council (2016). *Private schools and quality assurance secto*r. Abu Dhabi: Abu Dhabi Education Council.

Akadeemia, E.T. (1997). White Paper on R&D. In *Yearbook 1997* [Online]. [Accessed 3 July 2017]. Available at: http://www.aca.ee/eng/allea/whitepaperR&D.html.

Al Kaabi, A.A. (2015). *An evaluation of the school-based management practices in the new school model: a study on Al Ain schools.* PhD Thesis. United Arab Emirates University.

Al-Filali, I.Y. & Gallorotti, G.M. (2012). Smart development: Saudi Arabia' quest for knowledge economy. *International Studies*, vol. 49(1-2), pp. 47-76.

Allais, S.M. (2009). *Quality assurance in education*. (Issues in Education Policy, Number 5). Braamfontein, Johannesburg: Centre for Education Policy Development.

Asif, M. & Searcy, C. (2014). A composite index for measuring performance in higher education institutions. *International Journal of Quality & Reliability Management*, vol. 31(9), pp. 983-1001.

Asif, M. & Searcy, C. (2014). Determining the key capabilities required for performance excellence in higher education. *Total Quality Management & Business Excellence*, vol. *25*(1-2), pp. 22-35.

Aydın, M. (1993). *Çağdaş Eğitim Denetimi*. Ankara: Pegem Yayınları.

Badri, M.A. & Abdulla, M.H. (2004). Awards of excellence in institutions of higher education: an AHP approach. *International Journal of Educational Management*, vol. 18(4), pp. 224-242.

Ball, R. & Wilkinson, R. (1994). The use and abuse of performance indicators in UK higher education. *Higher Education*, vol. 27(4), pp. 417-427.

Bhattacharyya, J. (2004). Theorizing community development. *Journal of the Community Development Society,* vol. 34(2), pp. 5-34.

Bialecki, I., Johnson, S. & Thorpe, G. (2002). Preparing for national monitoring in Poland. *Assessment in Education: Principles, Policy & Practice*, vol. 9(2), pp. 221–236.

Blaikie, N. (2000). *Designing Social Research.* 1st edn. Cambridge: Polity Press.

Bonca, V.D. (2015). The study regarding different approaches of the quality assurance systems in education. *The Annals Of The University Of Oradea*, 1036.

Brown, K. (2010). *The benefits of global learning* [Online]. SecEd, 238, 8–9. [Accessed 3 July 2017]. Available at: http://content.yudu.com/A1lzp7/SecEd04Feb2010/resources/index.htm.

Burbules, N. & Torres, C. (2000). *Globalization and education: critical perspectives*. New York and London: Routledge.

Cave, M., Hanney, S., Kogan, M. & Trevett, G. (1988). *The use of performance indicators in higher education – a cri analysis of developing practice.* Higher Education Policy Series 2, Jessica Kingsley Publishers.

Cheng, Y.C. & Tam, W.W. (1997). Multi-models of quality in education. *Quality Assurance in Education,* vol. 5(1), pp. 22-31.

Cheng, Y.C. & Townsend, T. (2000). *Educational change and development in the Asia-Pacific Region: challenges for the future*. Lisse, Netherlands: Swets and Zeitlinger Publishers.

Cheng, Y.C. (1996a). *School effectiveness and school-based improvement: a mechanism for development,* London: Falmer Press.

Cheng, Y.C. (2003). Quality assurance in education: internal, interface, and future. *Quality Assurance in Education*, vol. 11(4), pp. 202-213.

Coulson, A.J. (1999). *Market education: the unknown history.* New Brunswick, NJ: Transaction Publishers.

Creswell, J. W. (2009). Editorial: Mapping the field of mixed methods research. *Journal of Mixed Methods Research*, vol. 3(2), pp. 95-108.

Creswell, J.W. & Clark, V.L.P. (2007). *Designing and conducting mixed methods research.* California: Sage.

Crotty, M. (1998). *The foundations of social research: meaning and perspective in the research process.* California: Sage.

Daun, H. (2001). *Educational restructuring in the context of globalization and national policy*. New York, NY: Routledge, Falmer.

Day, P. & Klein, R. (1990). *Inspecting the Inspectorates*. York: Joseph Rowntree Memorial Trust.

De Grauwe, A. (2001). *School supervision in four African countries: Volume 1. Challenges and reforms. Paris: International Institute for Educational Planning/UNESCO* [online]. [Accessed 3 July 2017]. Available at: http://unesdoc.unesco.org/images/0012/001248/124823e.pdf.

Doherty, G. (2012). *Quality assurance in education*. INTECH Open Access Publisher.

Doherty, G.D. (1994). Can we have a unified theory of quality? *Higher Education Quarterly*, vol. 48(4), pp. 240-255.

Dubai School Inspection Bureau (DBIS) (2016). *School inspection supplement* 2016-2017. Dubai: Dubai School Inspection Bureau.

Dubai School Inspection Bureau (DSIB) (2009). *Inspection handbook.* Dubai: Dubai School Inspection Bureau.

Duncan, A. (2010). *Common Core State Standards Initiative*, *2009*. Speech presented to the UN Educational, Scientific and Cultural Organization (UNESCO) [Online]. [Accessed 3 July 2017]. Available at: http://www.corestandards.org.

Dunford, J. & Secondary Heads Association, London (United Kingdom) (1993). *Managing the school for inspection*. London: Secondary Heads Association.

Dworak, E. (2012). Analysis of knowledge-based economy development in Poland in the light of strategic documents. *Comparative Economic Research*, vol. 15(1), pp. 23.

Easterby-Smith, M.T., Thorpe, R. & Lowe, A. (1991). *Management research: an introduction*. California: Sage.

Economic Policy Institute (2008). *A broader, bolder approach to education* [Online]. [Accessed 16 February 2011]. Available at: http://www.boldapproach.org/statement.html.

Ehren, M.C., Leeuw, F.L. & Scheerens, J. (2005). On the impact of the Dutch Educational Supervision Act: analyzing assumptions concerning the inspection of primary education. *American Journal of Evaluation*, vol. 26(1), pp. 60-76.

Ehren, M.C.M. & Visscher, A.J. (2008). The relationship between school inspections, school characteristics and school improvement. *British Journal of Educational Studies*, vol. 56(2), pp. 205–227.

Ehren, M.C.M., Altrichter, H., McNamara, G. & O'Hara, J. (2013). Impact of school inspections on improvement of schools – describing assumptions on causal mechanisms in six European countries. *Educational Assessment, Evaluation and Accountability*, vol. 25(1), pp. 3–43.

Emstad, A.B. (2011). The principal's role in the post-evaluation process – how does the principal engage in the work carried out after the schools self-evaluation? *Educational Assessment, Evaluation and Accountability*, vol. 23(4), pp. 271–288.

European Commission/EACEA/Eurydice (2015). *Assuring quality in education: policies and approaches to school evaluation in Europe*. Eurydice Report. Luxembourg: Publications Office of the European Union.

Eurydice (2004). *Evaluation of schools providing compulsory education*. Brussels, Belgium: Publications Office of the European Union.

Eurydice (2015). *Assuring quality in education: policies and approaches to school evaluation in Europe*. Luxembourg City, Luxembourg: Publications Office of the European Union.

Evans, E.R. (1999). *Calling academia to account: rights and responsibilities*. Buckinghum. UK: Society for Research into Higher Education and Open University Press.

Faubert, V. (2009). *School evaluation: current practices in OECD countries and a literature review*. OECD Education Working Papers, No. 42. OECD Publishing (NJ1).

Ferguson, N., Earley, P., Fidler, P. & Ouston, J. (2000). *Improving schools and inspection: the self-inspecting school*. London: Paul Chapman.

Fielden, J. & Abercromby, K. (2000). *UNESCO Higher Education Indicators Study: accountability and international cooperation in the renewal of higher education*. Paris: UNESCO.

Finkin, M.W. (1994). The unfolding tendency in the federal relationship to private accreditation in higher education. *Law and Contemporary Problems*, vol. 57(4), pp. 89-120.

Finkin, M.W. (1995). *Privacy in employment law*. Washington, DC: Bureau of National Affairs.

Flodgren, G., Pomey, M.P., Taber, S.A. & Eccles, M.P. (2011*). Effectiveness of external inspection of compliance with standards in improving healthcare organization behavior, healthcare professional behavior or patient outcomes*. The Cochrone Library.

Friend-Pereira, J.C., Lutz, K. & Heerens, N. (2002). *European student handbook on quality assurance in higher education*. The National Unions of Students of Europe.

Goertz, M.E. & Duffy, M.C. (2001). *Assessment and accountability systems in the 50 States, 1999-2000.* CPRE Research Report Series. Philadelphia, PA: CPRE.

Green, D. (1994). *What is quality in higher education*? Buckingham: SRHE and Open University Press.

Grossman, P., Loeb, S., Cohen, J., Hammerness, K., Wyckoff, J., Boyd, D. & Lankford, H. (2010). *Measure for Measure: The Relationships Between Measures of Instructional Practice in Middle School English Language Arts and Teachers' Value-Added Scores."* National Bureau of Economic Research Working Paper 16015. Cambridge, Massachusetts: National Bureau of Economic Research.

Gustafsson, J.E., Ehren, M.C.M., Conyngham, G., McNamara, G., Altrichter, H. & O'Hara, J. (2015). From inspection to quality: Ways in which school inspection influences change in schools. *Studies in Educational Evaluation*, 47, pp. 47-57.

Hamilton, L.S., Steele, J.L., Stecher, B.M. & Schwartz, H.L. (2011). *Expanded measures   of school performance*. Washington, DC: RAND Corporation.

Hanushek, E.A., & Raymond, M.E. (2005). Does school accountability lead to improved performance? *Journal of Policy Analysis and Management*, vol. 24(2), pp. 297–327.

Hargreaves, A. & Shirley, D. (2008). Beyond standardization: powerful new principles for improvement. *Phi Delta Kappan*, vol. 90(2), pp. 135–143.

Harman, G. (1998). Quality assurance mechanisms and their use as policy instruments: major international approaches and the Australian experience since 1993. *European Journal of Education*, vol. 33(3), pp. 331-348.

Harris, R. (2007). *Why ranking schools would do more harm than good*. Paper presented to the Australian Education Union Federal Executive Meeting, Melbourne, 12-13 September.

Harvey, L. & Green, D. (1993). Defining quality. *Assessment & Evaluation in Higher Education*, vol. 18(1), pp. 9-34.

Headington, (2000). *Monitoring, assessment, recording, reporting and accountability: meeting the standards*. London: David Fulton.

Heilman, E. (2009). Terrains of global and multicultural education: what is distinctive, contested, and shared? In T. F. Kirkwood-Tucker (Ed.), *Visions in Global Education* (pp. 25–46). New York, NY: Peter Lang

Heller, D.E. (2001). *The States and public higher education policy: affordable, access and accountability*. Baltimore, MD: Johns Hopkins University Press

Hendricks, S.M. (2001). Contextual and individual factors and the use of influencing tactics in adult education program planning. *Adult Education Quarterly*, vol. 51(3), pp. 219-235.

Hicks, D. (2007a). Responding to the world. In D. Hicks & C. Holden (Eds.), *Teaching the global dimension: Key principles and effective practices* (pp. 3–13). London: Routledge

Hicks, D. (2007b). Principles and precedents. In D. Hicks & C. Holden (Eds.), *Teaching the global dimension* (pp. 14–30). London: Routledge.

Hughes, G., Mears, R. & Winch, C. (1997). An inspector calls? Regulation and accountability in three public services, *Policy and Politics*, vol. 25(3), pp. 299–313.

Hussey, J. & Hussey, R. (1997). *Business research. A practical guide for undergraduate and postgraduate students*. Houndsmills: Macmillan.

Janssens, F.J.G. (2007). Supervising the quality of education. In W. Bo¨ttcher & H. G. Kotthoff (Eds.), *Schulinspektion: Evaluation, Rechenschaftsleging und*

Qualita¨tsentwicklung [School inspection: Evaluation, accountability and quality development] Mu¨nster: Waxman.

Jeffrey, B. & Woods, P. (1996). Feeling de-professionalized: the social construction of emotions during an Ofsted inspection. *Cambridge Journal of Education*, 26, 325–343.

Joint Committee on Standards for Educational and Psychological Testing of the American Educational Research Association (1999). *American psychological association, and national council on measurement in education, standards for educational and psychological testing*. Washington, DC: American Educational Research Association.

Kane, M.T. (2006). Validation. In Robert L. Brennan, ed., *Educational Measurement*. 4th edn. Westport, Conn.: Praeger Publishers, pp. 17–64.

Kane, T. J. & Cantrell, S. (2010). Learning about Teaching: Initial Findings from the Measures of Effective Teaching Project. Seattle, WA: Bill and Melinda Gates Foundation.

Kells, H. R., & Mundial, B. (1992). *Performance indicators for higher education: A critical review with policy recommendations.* Washington, DC: Education and Employment Division, Population and Human Resources Department, World Bank.

Knowledge and Human Development Authority (KHDA) (2011). *Private schools in Dubai: the evolving government and private sector relationship*. Dubai: KHDA.

Knowledge and Human Development Authority (KHDA) (2013). *Sustaining outstanding results*. Dubai: KHDA.

Knowledge and Human Development Authority (KHDA) (2016). *DSIB school inspection: key findings 2016-2016*. Dubai: KHDA.

Knowledge and Human Development Authority (KHDA) (2017). School rankings table – complete [Online]. [Accessed 3 June 2017]. Available at: https://whichschooladvisor.com/guides/khda-dubai-2017-school-rankings-table-complete.

Knowledge and Human Development Authority (KHDA) Inspection (2015). *United Arab Emirates School Inspection Framework 2015-2016*. Dubai: KHDA.

Kothari, C. R. (2004). *Research methodology: Methods and techniques*. New Age
    International.

Lagrosen, S., Seyyed-Hashemi, R. & Leitner, M. (2004). Examination of the dimensions of
    quality in higher education. *Quality Assurance in Education*, vol. 12(2), pp. 61-69.

Lee, J.C.K. & Yin, H.B. (2010). Teachers' emotions and professional identity in curriculum
    reform: A Chinese perspective. *Journal of Educational Change*, vol. 12(1), pp. 25–46.

Luginbuhl, R., Webbink, D., & De Wolf, I. (2009). Do inspections improve primary school
    performance? *Educational Evaluation and Policy Analysis*, 31(3), 221–237

Maguad, B.A. (1999). *A total quality approach to Adventist education*. Prepared for the 24th
    International Faith and Learning Seminar, Institute for Christian Teaching, Caribbean
    Union College, and Port of Spain, Trinidad and Tobago.

Mahony, P. & Hextall, I. (2000). *Reconstructing teaching: standards, performance and
    accountability*. London, UK: Routledge Publishing

Mansilla, V.B. & Jackson, A. (2012). *Educating for global competence: preparing our youth
    to engage the world.* Washington, DC: Council of Chief State School Offcers.

Matthews, P. & Sammons, P. (2004). *Improvement through inspection. an evaluation of the
    impact of Ofsted's work*. London: Ofsted.

McGarvey, N. & Stoker, G. (1999). *Intervention, inspection, regulation and accountability in
    local government.* DETR – Interim Literature Review. London: DETR

Ministry of Education (2017). MoE to launch evaluation process of 162 schools. [Online].
    [Accessed 3 June 2017]. Available at:
    https://www.moe.gov.ae/En/MediaCenter/News/Pages/EvaluationandQualityintro.asp
    x

Mordaunt, E. (1998). The citizens' journey: an exploration of the term lay'in four
    inspectorates. *Research Papers in Education*, vol. 13(3), pp. 277-290.

Morgan, A. (2006). Teaching geography for a sustainable future. In D. Balderstone (Ed.),
    Secondary geography handbook. Sheffield: Geographical Association.

Mortimore, P. (1992). Quality control in education and schools. *British Journal of
    Educational Studies*, vol. 40(1), pp. 23-37.

Mullar, J. (2000). *Reclaiming knowledge: social theory, curriculum and education policy.* London: Routledge/Falmer.

Murias, P., de Miguel, J.C., & Rodríguez, D. (2008). A composite indicator for university quality assessment: The case of Spanish higher education system. *Social Indicators Research*, vol. 89(1), pp. 129-146.

National Geographic-Roper Public Affairs (2006). *Final Report National Geographic-Roper Public Affairs.* Washington, D.C: The National Geographic Education Foundation National Geographic Society

Neal, J.E. (1995). Overview of policy and practice: differences and similarities in developing higher education accountability. In Gaither, G.H. (Ed.), *Assessing Performance in an Age of Accountability*: *Case Studies*. San Francisco, CA: Jossey-Bass.

Neave, G. (1998). The evaluative state reconsidered. *European Journal of Education*, vol. 33(3), pp. 265- 284.

Nedwek, B.P. & Neal, J.E. (1994). Performance indicators and rational management tools: a comparative assessment of projects in North America and Europe. *Research in Higher Education,* vol. 35(1), pp. 75-103.

Nelson, R. & Ehren, M. C. M. (2014). *Review and synthesis of evidence on the (mechanisms of) impact of school inspections* [Online]. [Accessed …]. Available at: http://schoolinspections.eu/wpcontent/uploads/downloads/2014/02/Review-and-synthesis-of-evidence-on-themechanisms-of-impact-of-school-inspections.pdf

Nero, S. J. (2000). The changing faces of English: A Caribbean perspective. *Tesol Quarterly*, vol. 34(3), pp. 483-510.

Nicolescu, O. & Nicolescu, C. (2015). Knowledge based specialists the determinant driven force of the knowledge based economy. *International Journal of Economic Practices and Theories*. vol. 5(5), pp. 527-533.

Organization for Economic Co-operation and Development (OECD) (The) (1989). S*chool and Quality: an international Report*. Paris: OECD.

Organization for Economic Co-operation and Development (OECD) (The) (1996). *The Knowledge-Based Economy*. (OECD/GD) (96)102, 3- 9). Paris: OECD.

Organization for Economic Co-operation and Development (OECD) (The) (1999). *The knowledge-based economy: a set of facts and figures*. Paris: OECD.

Organization for Economic Co-operation and Development (OECD) (The) (2008). *Education at a glance: OECD indicators*. Paris: OECD.

Organization for Economic Co-operation and Development (OECD) (The) (2016). *Higher education: quality, equity and efficiency.* Programme on Institutional Management in Higher Education. Paris: OECD

Panayides, P. (2013). Coefficient alpha: interpret with caution. *Europe's Journal of Psychology*, vol. 9(4), pp. 687-696.

Pârgaru, I., Gherghina, R. & Duca, I. (2009). The role of education in the knowledge-based society during the economic crisis. *Annales Universitatis Apulensis: Series Oeconomica*, vol. 11(2), pp. 646.

Parker, W. (2008). International education: What's in a name? *Phi Delta Kappa*, vol. 90(3), pp. 196–202.

Partnership for 21st Century Skills. (2009). *Learning for the 21st century: a report and mile guide for 21st century skills* [Online]. [Accessed 3 July 2017]. Available at: http://www.p21.org/storage/documents/P21_Report.pdf

Payne, J. (2000). The unbearable lightness of skill: the changing meaning of skill in the UK policy discourses and some implications for education and training. *Journal of Education Policy*, vol. 15(3), pp. 353–369

Powel, W. & Snellman, K. (2004). The knowledge economy. *Annual Review of Sociology*, vol. 30, pp. 199-220

Premeaux, S.R., & Mondy, R.W. (1993). Linking management behavior to ethical philosophy. *Journal of Business Ethics*, vol. 12(5), pp. 349-357.

Ramadan, F.I., Zaaba, Z. & Umemoto, K. (2011). Quality assurance of Egyptian higher education: a policy transfer perspective. *Literacy Information and Computer Education Journal* (LICEJ), vol. 2(1), pp. 338-349.

Rhodes, G. (1981). *Inspectorates in British government*. London: George Allen & Unwin.

Rosa, M.J., Sarrico, C.S. & Amaral, A. (2012). *Implementing quality management systems in higher education institutions.* In M. Savsar, (ed.). *Quality Assurance and Management*, Croatia: INTECH.

Rosenthal, L. (2004). Do school inspections improve school quality? *Economics of Education Review*, vol. 23(2), pp. 143–151.

Salih, T. (2008). Total Quality Management in Education. *Zanco Journal, the Scientific Journal of Salahaddin University*, April (36), pp. 1-17.

Saunders, M., Lewis, P. & Thornhill, A. (2012). *Research methods for business students.* 6th edn. Harlow: Pearson Education.

Saunders, R. (2013). The role of teacher emotions in change: Experiences, patterns and implications for professional development. *Journal of Educational Change*, vol. 14(3), pp. 303-333.

Schleicher, A. (2012). *Preparing teachers and developing school leaders for the 21st century: Lessons from around the world*. Paris: OECD Publishing.

Schonberger, R. & Knod, E. (1997). *Operations management: customer-focused principles.* 6th ed. Boston: Irwin McGraw-Hill.

Sekaran, U. (2003*). Research methods for business: a skill-building approach*. 4th edn. New York: John Wiley & Sons.

Singh, R.K., Murty, H., Gupta, S. & Dikshit, A. (2007). Development of composite sustainability performance index for steel industry. *Ecological Indicators*, vol. 7(3), pp. 565-588.

Singh, R.K., Murty, H.R., Gupta, S.K. & Dikshit, A.K. (2009). An overview of sustainability assessment methodologies. *Ecological Indicators*, vol. 9(2), pp. 189-212.

Slater, L. (2013). *Building high-performing and improving education systems: Quality assurance and accountability*. Reading, UK: CfBT Education Trust.

Smith, C.V. (1999). Total quality management. *Global Journal of Engineering Educ*ation, vol. 3(1), pp. 61-64.

Smith, P. (2002). Developing composite indicators for assessing health system efficiency. *Measuring up: Improving the Performance of Health Systems in OECD Countries*, OECD, Paris.

Standish, A. (2012). *The false promise of global learning: why education needs boundaries*. New York, NY: Continuum.

 Standish, A. (2014). What is global education and where is it taking us? *Curriculum Journal*, vol. 25(2), pp. 166-186.

Stromquist, N.P. & Monkman, K. (2000). *Globalization and education: integration and contestation across cultures*. Lanham, MD: Rowman and Littlefield.

Strożek, P. (2014). A spatial analysis of the knowledge - based economy in Poland. *Comparative Economic Research*, vol. 17(4), pp. 221-236.

Taylor, J. (2001). Improving performance indicators in higher education: the academics' perspective. *Journal of Further and Higher Education*, vol. 25(3), pp. 379-393.

The National (2015). *UAE Schools welcome unified inspection standards*. [Access date: September 15, 2015] retrieved at http://www.thenational.ae/uae/education/uae-schools-welcome-unified-inspection-standards

The Quality Assurance Authority for Education & Training, Bahrain (2009). A*nnual report 2009* [online]. [Accessed 7 November 2011]. Available: http://en.qaa.bh/AnnualReportEn2009.pdf.

Toffler, A. (1990). *Powershift: Knowledge, wealth and violence at the edge of the 21st century.* New York: Bantam Books.

UAE Government (2010). *Competitive knowledge economy.* [online]. [Accessed 1 May 2017]. Available at: https://www.vision2021.ae/en/national-priority-areas/competitive-knowledge-economy

Van Amelsvoort, H.W.C.H. & de Wolf, I. (2006). *Risk analysis in European inspectorates*. Utrecht: Netherlands Education Inspectorate.

Van Bruggen, J. C. (2006). *Schulinspektion im internationalen Vergleich.* Vortrag fu¨r die Bilanztagung der Hessischen Schulinspektion [International comparison of school

inspections: Paper presented to the meeting of the Hesse Education Inspectorate].
Frankfurt: IQ.]

Van Bruggen, J.C. (2001). *Functions of inspectorates in Europe.* Paper presented at the
International Inspection Academy, Berlin.

Van Damme, D. (2002). *Trends and models in international quality assurance and
accreditation in higher education in relation to trade in education services*.
Washington, DC: OECD/US Forum.

Van Damme, D. (2004). VIII. Standards and indicators in institutional and programme
accreditation in higher education: A conceptual framework and a proposal. *Indicators
for Institutional and Programme Accreditation in Higher/Tertiary Education,
NNESCO-CEPES, Studies in Higher Education, Bucharest*, 125-157.

Van Damme, D. (2014). How closely is the distribution of skills related to countries' overall
level of social inequality and economic prosperity? *OECD Education Working
Papers*, (105), 0_1.

Visscher, A.J. (2002). A framework for studying school performance feedback systems.
School improvement through performance feedback, 41, 72.

Vlašić, S., Vale, S. & Puhar, D.K. (2009). Quality management in education.
Interdisciplinary Management Research, 5, pp. 563-575.

Volante, L. (2007). Educational quality and accountability in Ontario: past, present and
future. *Canadian Journal of Educational Administration and Policy*, 58(21) January
[Online]. [Accessed 7 November 2011] Available:
http://umanitoba.ca/publications/cjeap/articles/volante_educational%20_quality.html.

Walshe K. (2003). *Regulating healthcare: a prescription for improvement?* Berkshire:
McGraw-Hill Education.

West, C. (2012). *Toward globally competent pedagogy.* NAFSA: Association of International
Educators

Whitehurst, G.J.R., Chingos, M.M. & Lindquist, K.M. (2014). *Evaluating teachers with
classroom observations*. Washington, DC: Brown Center on Education Policy,
Brookings Institute.

Wilcox, B. (2000). *Making school inspection visits more effective: the English experience*. UNESCO, International Institute for Educational Planning.

Wilcox, B., Gray, J. & Tranmer, M. (1993). LEA frameworks for the assessment of schools: an interrupted picture. *Educational Research*, vol. 35(3), pp. 211-221.

Wolff, R. A. (1993). The accreditation of higher education institutions in the United States. *Higher Education in Europe*, vol. 18(3), pp. 91-99.

Wong, M.N. & Li, H. (2010). From external inspection to self-evaluation: A study of quality assurance in Hong Kong kindergartens. *Early Education and Development*, vol. 21(2), pp. 205-233.

Woodhouse, D. (2009b). Challenges in quality assurance. In Newton, J. & Brown, R. (Eds.), The future of quality assurance. *EAIR, Research Policy and Practice Series,* 3.

World Bank (2012). *The four pillars of a knowledge economy. Knowledge assessment methodology.* Washington, DC: World Bank.

Wroniecki J. (2001). *New Economy: mirage or reality? Doctrine - Practice – Optics OECD*. In W. Welfe (Ed.), *Entrepreneurship and Management, Volume 3, Society Knowledge - Challenges for Central and Eastern Europe twenty-first century*. Lodz, Poland: The College Publishing Academy of Management.

Yin, R.K. (2003). *Case study research: Design and methods*. (3rd Ed.). Thousand Oaks, CA: Sage.

APPENDICES

Appendix 1: Survey Questionnaire

<u>Section 1– Demographics and School Data</u>

Please select the correct answer

1. What is your Gender

[ ] Male

[ ] Female

2. What is your Age

[ ] 18-24 years

[ ] 25-34 years

[ ] 35-44 years

[ ] 45-54 years

[ ] 55 and Above

3. Grade

[ ] FS1 – FS2,

[ ] Grade One – Grade Three

[ ] Grade Four – Grade Six

[ ] Grade Seven – Grade Nine

[ ] Grade Ten – Grade Twelve

Instructions for remaining sections (Section 2-3)

There are no right or wrong answers in this list of statements. It is simply asking for your opinion. Read every statement carefully and select the appropriate box that best applies to general education quality assurance metrics and the UAE inspection framework. The following range of responses may be offered:

1= Strongly Disagree

2= Disagree

3=Neutral

4= Agree

5= Strongly Agree

Section 2: Quality Assurance and UAE Inspection Framework

SN	Quality Assurance	1	2	3	4	5
1	In my school, we consider the quality grades of graduating students as a key indicator of the quality education we are providing					
2	Teachers' time and resource efficiency are significant contributions to quality education in my institution					
3	A professional school environment is maintained at all times as part of quality education in my school					
4	My School ensures high level of co-operation with community members					
5	Ensuring administrative efficiency (making the best use of inputs to generate output) is significantly prioritized in my school					
6	Contact Hours between teachers and students is monitored and improved in our internal quality assessments					
SN	UAE Inspection Framework	1	2	3	4	5
7	The new UAE Inspection framework help institutions abide by quality student learning Skills					
8	The new UAE Inspection framework is based on and helps understand Islamic Values					
9	The new UAE Inspection framework helps observe teaching methods that instigate effective learning					
10	The new UAE Inspection framework supports Curriculum adaptation based on local or regulatory requirement					
11	The new UAE Inspection framework successfully ensures child safeguarding					
12	The new UAE Inspection framework help monitor School Governance more effectively					

Section 3: Institutional Transformation and Performance

SN	School Transformation Metrics	1	2	3	4	5
13	My school attempts to integrate practical environmental knowledge into the lives of students, teachers and all other stakeholders					
14	My school is increasingly concerned about family and consumer education not only with teachers but pupils as well					
15	My school attempts to identify and try out newer learning skills					
16	My school is concerned about helping both faculty members and students build good social relationship skills					
17	Tolerance is central to school administration and teaching values.					
18	My school is managed in view of the need for sustainability (satisfying present needs whilst providing a safe environment for future generations)					
SN	School Performance	1	2	3	4	5
19	My institution has a high level of Student attainment and progress					
20	Student in my school have a high level of personal and cultural development					
21	Teaching and assessment are of the highest education performance standards in my institution					
22	Curriculum is carefully designed and implemented based on local conditions					
23	Students and teaching staff are adequately protected in my school					
24	Leadership and management is of high performance standard in my school					

THANK YOU VERY MUCH FOR YOUR PARTICIPATION!!!

Appendix 2: Letter to School Permission

Date: May 1st, 2017

Dear Mr./Mrs.,

The British University in Dubai offers a Master's of Education (Med) degree to interested students, teachers, and professionals in the United Arab Emirates to maximize their career opportunities and increased their knowledge. The MEd program is designed in collaboration with the School of Education of the University of Birmingham, one of Britain's leading schools of education. The Med program is approved and accredited by the Ministry of Higher Education and Scientific Research, UAE and has graduated many students since its start in 2005 in several different areas in education. The purpose of this letter is to kindly ask you to allow Dina El Saadi, a student in this program, to be able to conduct a research by conducting interviews, survey or observations as appropriate to the study, as would be agreed by your teacher(s) and our student. Data collected will be anonymous and will be treated with utmost confidentiality.

Finally, we look forward to your kind cooperation. If you require any additional information, please don't hesitate to contact Dr. Sufian Forawi (MEd Program Coordinator) at sufian.forawi@buid.ac.ae or 050 1270746.

Sincerely Yours

Dr. Sufian A. Forawi,

Science Education Associate Professor

Appendix 3: Teachers' Participants Letter

To Whom It May Concern

Dear Mr./Mrs.,

I am conducting this research study in the specialization of Science Education from the British University in Dubai. The purpose of the research is *"to investigate the contribution of UAE School Inspection Framework as a quality assurance tool to schools' transformation and performance improvements".* As I receive your permission, I will send you a survey questionnaire for completion, this data will be used for analysis in the study.

Please note that the information collected from the teachers and students will be kept confidential and will be used only for this research. If you have any enquiries about this research study, please contact the undersigned. Thank you for your cooperation in this academic endeavor.

Best Regards,

Dina El Saadi

deena_saadi@hotmail.com

May 2017

Appendix 4: Informed Consent Form

PARTICIPANT CONSENT FORM

Provide a brief introduction indicating the purpose of the research study and the tool.

Please tick (√) the following boxes to indicate your agreement:

□ I have read the information provided about the purpose of the study.

□ I understand that the data collected will be completely anonymous and that my privacy and confidentiality will be respected.

□ I understand that I have the right to withdraw from this study at any time without prejudice.

□ I understand that any reports that will result from the data collection will not identify any individual participants.

□ I am willing to participate in the survey.

□ I am willing to participate in a classroom observation.

Name: _____

Signature: _____ Date: _____