

CHAPTER EIGHT

DISCUSSION OF FINDINGS, IMPLICATIONS AND FUTURE DIRECTIONS

Introduction

This study examined the applicability of the NSWQT model to primary schools in Jordan. The first two chapters of this thesis described the Jordanian educational environment and the context of the study. Chapter three consisted of a review of relevant literature regarding teacher quality and the model. Chapter four detailed the research methodology: a study of official documents, observation, interviews and field notes. Chapters five, six and seven presented the results of the study. Chapter five presented descriptions of quality teaching, both from the perspective of the Jordanian Ministry of Education (MOE) and from the perspective of the framers of the NSWQT Model. The practices of quality teaching observed in the Jordanian primary classrooms were explored in chapter six. In chapter seven, the ways the teachers and principals in Jordan perceived and understood quality teaching and the stakeholders' factors influencing quality teaching were discussed.

This chapter provides a brief summary of the findings and discusses implications of the research. It then provides suggestions for future directions for research of this nature and for policy and practices. There are two dimensions to the discussion in this chapter: i) to compare and contrast the three understandings of quality teaching (the Jordanian MOE, the school stakeholders, and the NSWQT Model), and ii) to uncover evidence in the teaching practices found in Jordanian primary schools of the use of understandings of quality teaching as found in the NSWQT Model. Five sub-questions have been framed to direct this discussion:

1. How is quality teaching described officially in Jordan?
2. How is quality teaching described in the NSWQT Model?
3. What are the current quality teaching practices in primary schools in Jordan as judged by the NSWQT Model?
4. What are the perspectives of quality teaching held by the Jordanian primary school stakeholders?
5. What are the factors influencing quality teaching from the school stakeholders' perspectives?

Summary of Findings

The study used document analysis, observations, interviews and field notes to answer the research questions. The summary of these findings is presented below.

The Descriptions of Quality Teaching (MOE and NSWQT Model)

Although there is no explicitly identified model of quality teaching in Jordan, the MOE's *Framework for Curriculum and Assessment* and other relevant documents indicate at least an attempt by the Jordanian education authorities to understand and promote a conception of quality teaching. The MOE describes quality teaching as those practices needed to build a 'knowledge society' and that quality education is a cornerstone of a 'Knowledge Economy'. The concept of quality teaching is part of the MOE's future vision for education. However, while this vision sees quality education as bringing together multiple aspects of the teaching-learning process, there is no practical guide to quality teaching that is as sophisticated, extensive and comprehensive as the NSWQT Model.

The MOE acknowledges that quality teaching is a complex process which works in different directions. The MOE acknowledges that the key stakeholders in this process are students and their actions, teachers and their actions, the interactions between both of these groups, and the context or the environment in which they act. This process is seen to involve other stakeholders as well, such as principals and supervisors. The MOE suggests that the student's role in the teaching and learning process has to be moved from the traditional transmission-reception role (teacher-centred) to a new constructivist role (student-centred). The student's role has to shift away from being a passive receiver of information expected to memorize information from textbooks and retain it until recalled and regurgitated at exam time (Ministry of Education, 2002; 2004b; 2006a). According to the MOE, the student must move to being a creative and active participant who debates and discusses, presents ideas freely and boldly, criticizes openly and suggests options, understands and uses technology, knows the value of foreign languages, makes difficult decisions, and stays committed to the path of ever-increasing knowledge and growth through understanding (Ministry of Education, 2002, 2004b, 2006a).

While the MOE identifies many aspects of the quality teaching-learning process, in total these are less developed and less detailed about the pedagogical practices needed to achieve the expected outcomes. Nevertheless, the MOE advocates that the relationship

between the student and the teacher be built on mutual respect and reciprocal interaction, rather than the teacher giving orders; and directions and the student complying with these (Ministry of Education, 2002, 2004b, 2006a).

The MOE makes its most fulsome statements about quality teaching in two documents where, according to the MOE, quality teaching is a process implemented by a teacher who understands the individual needs of students and does not stereotype students; who understands that disagreements with others can be a source of information for enriching learning; who is a good facilitator because they are able to think critically about and reflect on their students' learning; and who is able to learn from others, reflect and thereby engage in life-long learning (Ministry of Education, 2002, 2004b). Elsewhere, the MOE has made slightly more sensible comments about quality teaching and these at times were echoed by the school stakeholders in this study: that quality teaching as a process involves four dimensions – planning; creating a learning environment; the implementation of teaching and learning; and assessment. While this is a better acknowledgement of some of the practicalities of teaching and learning, it is still a less sophisticated and thoroughgoing 'framework' than that provided by the NSWQT Model.

The NSWQT Model considered quality teaching as a process centred on pedagogical practice. The model's depersonalised, technical and functional conception of pedagogy explains why it describes pedagogy as the 'art and science' of teaching (NSW Department of Education and Training, 2003c, p.4), rather than pedagogy relying crucially on the personal characteristics of the teacher and the learner. The importance of this disjuncture becomes clear when Jordanian teachers' attitudes towards and understanding of quality teaching are explored below.

The NSWQT Model's developers break down their conception of pedagogy into teaching activity and the quality of instructional tasks. Significantly, in this understanding of pedagogy, knowledge is not seen as something static to be learned but, rather, a process involving construction, production and critique. Crucially, the developers of the NSWQT Model stress the inseparability of content, process (from both a teaching and learning point of view), and result: 'the term *pedagogy* recognises that how one teaches is inseparable from what one teaches, from what and how one assesses and from how one learns' (NSW Department of Education and Training, 2003c, p.4). This is an important point, since it establishes a relationship between the content of lessons (essentially a curriculum issue),

the monitoring of those lessons, their delivery, and an understanding of individual learning processes. Teaching and learning, then, is a multifaceted process involving an interaction between teachers, learners, and the curriculum. This is a more sophisticated and integrated understanding of quality teaching than the Jordanian 'model'.

In a much more fine-grained way than any Jordanian MOE document, the NSWQT Model describes quality teaching as a teaching and learning process involving three dimensions each broken down into subsets of six elements: i) intellectual quality, which consists of the six elements of deep knowledge, deep understanding, problematic knowledge, higher-order thinking, metalanguage, and substantive communication; ii) quality learning environment, which consists of explicit quality criteria, engagement, high expectations, social support, students' self-regulation, and student direction; and iii) significance, which consists of background knowledge, cultural knowledge, knowledge integration, inclusivity, connectedness, and narrative (NSW Department of Education and Training, 2003c).

As a preliminary answer to the two sub-questions mentioned at the beginning of this section which are – How is quality teaching described officially in Jordan? How is quality teaching described in the NSWQT Model? -- it is clear that the Jordanian MOE has a more tentative, less integrated and less sophisticated articulation of quality teaching than the NSWQT Model. Further to this, the congruent and incongruent elements between the Jordanian experience and the NSWQT Model will be assessed in much greater detail below showing nevertheless that there is considerable overlap of their conceptions of quality teaching. Suffice it to say at this stage that this criticism of the Jordanian 'framework' is not to imply that the NSWQT Model is perfect. Indeed, it could be argued that in certain contexts needing a workable and direct policy implementation process, then a less integrated and less sophisticated, but reasonably accurate, model of teaching and learning may be appropriate. There is also the situation raised below of working within a cultural context that emphasises personal responsibility and personal qualities over technical processes. This type of cultural context may render important parts of the NSWQT Model difficult to apply in practice.

The Current Quality Teaching and Learning Practices

In answer to the third sub-question – What are the current quality teaching practices in primary schools in Jordan in terms of the NSWQT Model? – four clear results became apparent from observing the teaching practices of seven primary classroom teachers in

Jordan. First, it became clear that the three dimensions and the 18 elements of the NSWQT Model were applicable for describing both the teaching and the learning practices there. Second, the dimension 'quality learning environment' (and some of its elements) was more compatible with the teaching and learning practices observed than the other two dimensions. From a closer examination of the teaching practices of the participants, it can be said that in general, the dimensions of 'intellectual quality' and 'quality learning environment' and some of their elements were more compatible with the existing teaching and learning practices than the dimension of 'significance'. Deliberate and conscious change would need to be undertaken for 'significance' to become as important a part of the Jordanian teaching-learning process as the NSWQT Model (and possibly the MOE) would envisage. It is suggested below that the possibility of implementing such a change could be limited by quite reasonable cultural concerns. Third, from the observations, all dimensions were most clearly applied in Arabic language lessons more so than in mathematics lessons. Fourth, from a close examination of the applicability of the elements across the three dimensions, it can be concluded that the elements of student direction, cultural knowledge, problematic knowledge, and narrative were either applied at a low level or not at all during the 14 lessons observed. Again, it is suggested below that there are cultural factors that may limit the applicability of these elements in the Jordanian context.

The School Stakeholders' Perspectives of Quality Teaching and Influential Factors

Below is a brief answer to the fourth sub-question – What are the perspectives of quality teaching held by the Jordanian primary school stakeholders and what are the factors that influence quality teaching from these perspectives? The interviews with the Jordanian primary school stakeholders showed that they perceived the following as significant elements for producing quality teaching or for producing the characteristics of a quality teacher. The elements were: clearly determining instructional objectives; varying instructional methods; facilitating the acquisition and the implementation of knowledge; using teaching aids; having a physically and socially acceptable classroom environment; being conscientious, honest, and cooperating with colleagues and parents; having clear expectations of personal enjoyment, of professional growth and of the type of personal characteristics needed for teaching; having substantial content knowledge and knowledge of students and their abilities; and using ongoing assessment for teaching and learning.

The factors assessed by the stakeholders as influencing quality teaching were: infrastructure, resources and funding, mentoring and evaluation, relationships with colleagues and community, curriculum content, professional training and support, school context, students' social and economic background, and instructional overload.

In sum, the Jordanian MOE's conception of quality teaching was strongly compatible with that of the NSWQT Model, and the fact is that the reality 'on the ground' in terms of Jordanian school stakeholders' classroom practices revealed a remarkable congruence with most of the NSWQT Model. However, their understanding of quality teaching is incongruent with the model. These congruencies and some associated incongruencies will make up the bulk of the discussion below and act as an answer to the main research question: To what extent can the NSWQT Model be applied to the Jordanian primary school context?

Discussion of Findings

The findings of this study are discussed within a conceptual framework of the applicability of the NSWQT Model in the Jordanian context. This study focuses on an investigation of the congruence and the incongruence between four components: the Jordanian MOE's description of quality teaching, the NSWQT Model, the school stakeholders' perspectives of quality teaching and the teaching and learning practices. The first and second layers showed a significant degree of congruity, while the second and third layers showed a certain degree of incongruity in the conceptual level but in the teaching practices level, there was significant congruity. By implication, this means that there may be some disjuncture between the MOE's prescriptions for quality teaching in Jordanian primary schools and the assessment of the nature of quality teaching by those stakeholders needed to implement the MOE's vision for a Jordanian 'knowledge society'.

To set some basis for comparison, the NSWQT Model was compared with Jordanian conceptions drawn from official documents. Interviews were conducted with school stakeholders and their conceptions of quality education analysed. It was noted that stakeholders (teachers and principals) with a sufficiently sophisticated understanding of what counts as quality teaching can be a positive adjunct to the quality teaching and learning process. In this regard, Jordanian schools are well-served by their staff who appear to be able to produce at times a sophisticated practice of quality teaching. However, their articulation of the concept of quality teaching is not always completely congruent

with that presented in official MOE documents. To elaborate on this, a substantial assessment is made below of the congruity of the understanding of quality teaching amongst the participants in the research and the NSWQT Model.

In Jordan, there are two authorities central to the preparation and propagation of a consistent understanding of quality teaching: the MOE as a legislative and policy body, and the school stakeholders (principals and teachers) as implementers. It would be expected that the two parties have a common understanding of quality teaching; otherwise the differences may undermine attempts to apply a certain conception of quality teaching. For example, if the school stakeholders understand quality teaching to be based on the transmission approach in teaching or lodged in unique unreplicable personal characteristics, while the MOE understands it as based on a technical, transferable and functional constructivist approach, then the differences may undermine attempts to realise a certain concept of quality teaching in practice. To explore the extent of the congruence of the expressed conceptualisations of quality teaching with the practices, it was essential to observe the participants' actions within the teaching-learning process. This provided a way of exploring the relationship between the perspectives and the practices of quality teaching. The assumption now focuses on the congruence of the three dimensions of the NSWQT Model with the Jordanian primary school teaching and learning practices, MOE's perception and with the school stakeholders' perspectives.

Congruence is defined as 'suitable, agreeing [and] coinciding exactly when superimposed' (Moore, 2004, p.291). In this research, congruence describes the relationship between two particular constructs. If the construct of the NSWQT Model is considered in relation to the Jordanian MOE's policy, then the relationship between these two constructs can be described as either congruent or incongruent. If aspects of the two constructs are seen to be aligned or positively correlated or in agreement with each other, then a relationship of congruence can be identified.

The word congruence is used as an interpretive term in this study and to allow a way of conceptualizing the multiple aspects of quality teaching in the Jordanian educational context. Other researchers investigating the NSWQT Model have similarly used the term congruence as an interpretive term. Formosa and Dixon (2004) reported on 'the degree of congruence' (p.6) between the realities of a special education classroom and the NSWQT Model. The notions of congruence and incongruence are used here as indicators of the

extent of the applicability of the dimensions of the NSWQT Model to the Jordanian context. Congruity for some elements indicates that these elements are applicable, while incongruity for other elements indicates that these are inapplicable. As an example, the NSWQT Model is congruent with the MOE’s framework for the element of Student Direction, but these frameworks’ understanding of Student Direction is incongruent with the observed reality of the teaching and learning practices in the schools studied. In this instance, the NSWQT Model is congruent with the MOE’s framework but not with the actual observed teaching and learning practices in terms of this element.

In the following section, multiple comparisons and contrasts between the four components (MOE, NSWQT Model, school stakeholders and the classroom teaching and learning practices) are presented. These comparisons and contrasts are set around the three dimensions of the NSWQT Model: Intellectual Quality, Quality Learning Environment and Significance. The following diagram (Figure 8.1) shows the multiple relationships between these components.

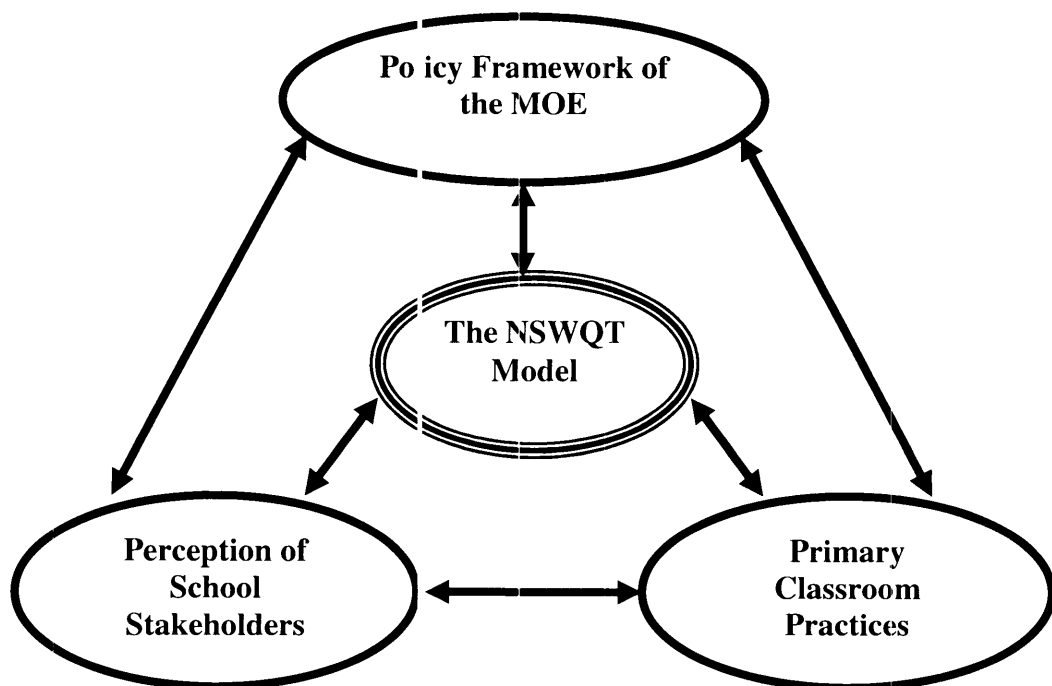


Figure 8.1: The Conceptual Map for Discussion of Findings

From the literature review (see chapter three) it can be seen that the concept of quality teaching can only be discussed within its context. This context consists of: the education

policies, the school context, and the teaching and learning practices. Therefore, the NSWQT Model and its applicability has been positioned with respect to these components (see Figure 8.1) to explain its congruency and incongruency within the policy and practices of quality teaching and learning in the Jordanian context. As Crebbin (2004) and Vidovich, Fourie, Westhuizen, Alt & Holtzhausen (2000) argued, quality teaching can be creatively discussed in its political, social, and practical context as a dynamic concept which can be changed continuously and can be affected and influenced by the aspects of that context. The idea of establishing the discussion of the findings of this study within the framework in Figure 8.1 developed from the conceptual framework of this study (see chapter three). The literature (Maxwell & Ninnis, 2000b; Organisation for Economic Cooperation and Development, 2005; Wang & Waltherg, 1991) argues that the relationships between the three main levels of factors influencing quality teaching need to be coherent and can enhance or hinder quality teaching. To clarify the meaning and purpose of the above framework (Figure 8.1), it is essential to discuss the components of this framework and connect them with the previous framework (Figure 3.1) discussed in the literature review. The researcher has done that to set some basis of discussion of the results in the coming sections. These components are described below.

The NSWQT Model

The heart of the framework in Figure 8.1 is the NSWQT Model. The organization of this diagram shows that the NSWQT Model is central to the dialogue and the discussion of the applicability of the Model to the Jordanian context. The diagram illustrates that the other three components, MOE's framework policy, the classroom practices and the school stakeholders' perspectives, are essential for revealing the extent of the congruencies and incongruencies of the NSWQT Model and consequently the extent of its applicability to the Jordanian context. This supports the idea that to examine the applicability of a model of pedagogy, it is necessary to see it through its context – the 'big picture'. This context was divided into three interrelated components: educational policy (MOE's framework), school (school context including its stakeholders) and policy practices (teaching and learning practices) (see also Figure 3.1 in chapter three). The discussion looks at comparisons and contrasts within and between the three components on the one hand, and between the Model and the three components on the other.

Policy Framework of the MOE

The first component is the MOE's policy. Educational policy, as discussed in the literature review, can hinder or facilitate quality teaching. In Figure 8.1, the MOE is established as the one of the important components that can influence the applicability of the NSWQT Model. Many researchers (Codd et al., 1998; Collins, 2000; Dye, 1992; Stone, 1997; Taylor et al., 1997) have claimed that policies can often be drawn from the interests of a particular powerbase or authority and the decisions that come from that powerbase/authority have to be implemented. The influence of a political body's educational policy on educational practices and perspectives has to be considered. As the purpose of this study was to test the extent of the applicability of the NSWQT Model, it was inevitable and important to compare and contrast the NSWQT Model with the existing Jordanian MOE's education policy regarding the concept of quality teaching and learning.

Primary Classroom Teaching and Learning Practices

The second component of the framework for discussion is the quality teaching and learning practices. Teaching and learning practices can reflect the real picture of the implementation of an educational policy. The teaching and learning practices are an important component in the discussion of the applicability of the NSWQT Model. The teaching and learning process, from the planning stage to the evaluation stage, has been extensively examined in the literature. The literature highlights planning as being important and vital (Ashman & Conway, 1993; Groundwater-Smith et al., 2003; Maxwell & Ninnis, 2000a; Panasuk et al., 2002). After planning comes implementation. This stage can interpret what approaches of teaching teachers use in their classrooms in the light of the new trend in education, which is the constructivist approach to teaching and learning. These aspects are addressed in the literature (Borich, 2000; Darling-Hammond, 1997; Killen, 2005; Newmann & Associates, 1996). Within this stage the teacher's skills in classroom management and in engaging students in different learning tasks are crucial aspects in teaching and learning. Finally, the element of assessment allows teachers and their students to evaluate the teaching and learning that have been implemented.

School Stakeholders' Perceptions of Quality Teaching

The third component of the framework is the schools' stakeholders and their perception of quality teaching. These perceptions are important as the stakeholders implement the educational policy. This component (school stakeholders' perspectives) is highlighted in

this study to address the influence of different factors on quality teaching. As several authors (Borich, 2000; Darling-Hammond, 1997, 2000; Dinham, 2004b; Fraser, 2002; Hargreaves, 2003; Marzano, 2000; Organisation for Economic Cooperation and Development, 1994; Strinfield & Toddie, 1988; Walker & Murphy, 1986) argue that the school context and its stakeholders need to work cooperatively and coherently and also need to have a common understanding of what accounts as quality teaching and learning. In this study, the school stakeholders and the MOE are expected to have a shared understanding of the education policy in regards to the quality teaching and learning process. It is essential to discuss the findings of this study within the proposed framework. The framework illustrates the multiple connections between the components. These components can dominate, situate and determine the extent to which the NSWQT Model can be applied to the Jordanian context. The following sections will discuss in detail the nature of the relationships between these components in terms of their congruence and incongruence.

Congruence

There is no explicitly identified model for the practice of quality teaching in Jordan. The concept of quality teaching in Jordan has been derived from the MOE's *Framework for Curriculum and Assessment* (Ministry of Education, 2003b, 2006a) and other relevant documents (see chapter four). The two frameworks, the NSWQT Model and the Jordanian Ministry of Education's, attempt to introduce 'best practice' into schools under the rubric of 'quality teaching and learning'. Whatever slight differences there are between the two frameworks are caused by the different contexts within which they are expected to operate and the different histories leading to their creation. Despite these modest divergences (see chapter five), both draw on the relatively new constructivist approach to teaching and learning for their conceptions of best practice.

In the constructivist approach, knowledge is to be constructed and understood rather than merely memorized (Killen, 2003; Ministry of Education, 2006a; NSW Department of Education and Training, 2003c). This approach calls for teaching to be centred on the student rather than on the teacher. The teacher's role in this process is to be a facilitator and guide for the students to construct their own knowledge and make sense of it rather than the teacher being a prompter or spoon-feeder (Killen, 2003; Ministry of Education, 2006a; NSW Department of Education and Training, 2003c). Because of this, the two

frameworks mostly agree on aspects or elements of quality teaching and learning. These congruencies revolve around the constructivist philosophy that the teacher is focused on student-centred learning rather than teacher-centred instruction. According to the MOE, the traditional teacher's characteristics of didacticism, personal dominance of the classroom, 'spoon-feeding' or transmission-style teaching, of being the only 'legitimate' source of information, relying strongly on verbal direction and instruction, and being the sole classroom manager and only source of authority should be abandoned. The 'new' teacher's role is one of guiding and facilitating student learning through close observation, encouraging debate, seeking innovation, acting as a critical friend to students and staff, modelling a variety of modes of teaching, and constantly consulting students (Ministry of Education, 2002, 2006a).

According to the NSWQT Model, the teaching and learning process should be built on the basis of constructing knowledge. This could be done by reshaping the relationship between the student and the teacher so that the teacher is the facilitator and a student is the constructor of his/her own knowledge. Therefore, the model interpreted pedagogy as a sophisticated technique whereby knowledge could be well constructed and presented as a subject of critique rather than be accepted as fixed body of information. Therefore, according to the NSWQT Model '... the term *pedagogy* recognises that how one teaches is inseparable from what one teaches, from what and how one assesses and from how one learns' (NSW Department of Education and Training, 2003c, p.4). Knowledge is not seen as something static to be learned but, rather, a process involving construction, production and critique. In a less elaborate way, this understanding also underpins the MOE's conception of teaching and learning.

Although the school stakeholders did not address the elements of quality teaching and learning as they suggested by the two frameworks they were practicing these elements in their teaching practices. When the NSWQT Model was applied to observations of classroom practices, interestingly, in large part it can be said that these Jordanian teachers were practising quality teaching strategies which could be described in terms of the NSWQT Model. There is a divergence between the MOE's vision and the teachers' perceptions of their practice and a re-convergence around much of the teachers' actual practice. To re-emphasise, during the interviews the school stakeholders, particularly the teachers, did not articulate several of the elements of quality teaching as described by the

NSWQT Model and the MOE's framework; however, most of those elements were evident in their teaching practices as described in more detail in the following sections.

Intellectual Quality

The NSWQT Model's dimension of intellectual quality and most of its elements were suggested in MOE documentation that is, in broad terms the two frameworks were congruent. Both frameworks advocate quality teaching implemented by teachers who involve tasks fostering critical thinking and problem-solving. The MOE described a quality teacher as a teacher who encourages students to be active learners, with the teacher constantly asking questions and providing activities requiring higher-order thinking by students. Furthermore, whole class discussions (whether in the form of open discussions, round-robin lectures, brainstorming, and/or question and answer sessions) are seen by the MOE to be the most effective and efficient ways of activating the intellectual component of the quality teaching process.

The NSWQT Model and the MOE's framework are congruent for the dimension of intellectual quality in terms of expectations of student participation. In both frameworks, the student in the quality teaching and learning process is supposed to be a creative and active participant who debates and discusses, presents ideas freely and boldly, criticizes openly and suggests options, makes difficult decisions, stays committed to increasing their knowledge, and who grows through increased understanding. This contrasts directly with the transmission role of the student being a passive recipient of information, participating at best in a limited way, and expected to memorize information from textbooks and retain it until exam time. The major effort for students, in the transmission role, is to recall and regurgitate rote-learned information in the required way at the required time. (The way stakeholders dealt with these opposing roles is examined below.) The constructivist role for the student is consistent with the MOE's future vision of a knowledge economy that builds a knowledge society able to challenge and compete in the global marketplace. The two frameworks agree that the teaching and learning process be established on a constructivist (student-centred) rather than transmission (teacher-centred) approach.

The student's role, according to constructivist literature, for both quality teaching frameworks, can be summarised as taking three forms. First, the student shows understanding by asking and answering questions. Second, the student contributes and participates in the lesson by adding information, ideas, opinions and comments. Third, the

student demonstrates the skills and attributes of problem-solving and high-order thinking, which is accompanied by curiosity and eagerness to acquire new knowledge about problems and issues and, thus, to try enthusiastically different methods of problem-solving and thoroughly assess their usefulness (Bloom, 1956; Killen, 2005). Paradoxically, because this approach is in contrast to simple 'right-or-wrong' answers or a linear development of knowledge for examination success, then for some students and in some cultures this pedagogical approach may be experienced as more oppressive and/or more demanding than the traditional rote-regurgitate model. In this case, the constructivist model may be construed as limiting educational (and hence economic) success for students in so far as it diverts attention from success in high-stakes and terminating examinations where getting the 'right' answer is crucial for educational and career advancement. That such an existing situation may influence stakeholders' comments of their perceptions of quality teaching is examined below.

Specific elements of quality teaching found in both perceptions will now be assessed in terms of the congruence/incongruence template. Quality teachers, according to the MOE's framework and the NSWQT Model's description of intellectual quality, need to use appropriate language when they communicate with their students. Appropriate language means discipline-related language, as well as explaining the meaning for each new word and its relevance to the context, and giving definitions and examples for each word used. Although this criterion takes different forms in each framework, the meaning is the same. For example, in the NSWQT Model appropriate language is understood as metalanguage – language ranging over and above the immediate discourse, while the Jordanian framework asks teachers to use language that demonstrates the teacher's mastery of the appropriate language of the respective discipline. As teaching and learning process is an interaction process between teacher and students, then this process has implications for teacher-student interaction and language use. It is clear that the interaction process between teachers and students needs basic communication skills, relying fundamentally on all uses of language: writing, reading, speaking and listening. It was stated in the literature that 'students should be taught a vocabulary for talking about language, that is, a comprehensive and consistent metalanguage, to make instructional practices and assessment expectations explicit, and to enable students to 'name', deconstruct and critique forms of spoken language' (University of Queensland, 2001, p.7). Such a method gives students the ability to vocalise and investigate dilemmas both within and outside the classroom (University of Queensland, 2001). Therefore, for students to receive

appropriately authentic teaching of the dilemmas associated with received knowledge, then language use moves to centre stage in the quality teaching and learning process.

The school stakeholders did not mention explicitly the particular elements of intellectual quality. They talked about transmission techniques for teaching and learning, such as quality teaching being about acquiring knowledge, but even more to the point they did not explain how and by which method. As much as there was incongruence between what the school stakeholders said and what the MOE and the NSWQT Model suggest. There was also an absence of elaboration about whatever classroom strategies they understood to be of intellectual quality. The school stakeholders probably took for granted several elements of intellectual quality teaching as defined by the MOE and the NSWQT Model, but did not express them verbally as these elements were evident in their teaching practices. Perhaps the MOE has not provided detailed-enough directions about the basics of constructivism and the constructivist-based elements of its version of quality teaching. This could be because the MOE's focus has mainly been on formulating and imposing document-based frameworks for the curriculum and for assessment, rather than providing the philosophical-practical in-servicing needed to advance an appreciation of constructivist methods. At the same time, the school stakeholders' attitude toward the MOE showed some resistance to a new, MOE-defined understanding of how teachers should teach (see chapter seven). The school stakeholders viewed the MOE as arbitrarily imposing a conceptualisation of teaching and learning without consultation (e.g. curriculum quantity). Al-Daami and Wallace (2007) attribute the failing in curriculum reform in Jordan to the fact that central educational authorities insist on having control and domination over the school stakeholders and ignore the involvement of those stakeholders in such reform. Such pattern of relationship created division and subsequently MOE lost the school stakeholders' allegiance to the education reform in total.

The NSWQT Model's elements of problematic knowledge, higher-order thinking, substantive communication and metalinguage were congruent with the MOE's framework, but were incongruent with or absent from the school stakeholders' articulations. The school stakeholders did not mention these elements explicitly. The reason behind this incongruence might be that these teachers were wary of a concept such as 'problematic knowledge' when their traditional approach accepted that knowledge is 'truth' that cannot be questioned (a teacher-centred approach). According to the school stakeholders' interviews, the teacher is the only source of knowledge and that knowledge is presented as

factual and as a fixed body of truth not open to question. As elaborated further below, the paradox again arose that while the elements of higher-order thinking, substantive communication, metalanguage, and even problematic (or problematising) knowledge were not mentioned by the school stakeholders, they were nevertheless clearly part of their observed teaching practices. For example, the school stakeholders did not mention language and its usage in the classroom as an important element of quality teaching, but it was congruent with their practice.

The above discussion shows that at the theoretical level as propounded by official documents there was congruence between the MOE's understanding of quality teaching and that of the NSWQT Model. There was far less congruence or even acknowledgement by the school stakeholders of the theoretical description or its elaborated elements and recommended practices forming the basis for their quality teaching. However, and this is the central paradox, at the level of observed teaching and learning practices most of the elements of the dimension of intellectual quality were apparent and therefore the school stakeholders' actual practice was congruent to a large extent with the teaching and learning practices encouraged by the MOE (see chapter six). In an interesting way, these findings are consistent with research by Johnson and Cupitt (2004), Keddie (2005) and Loughland (2006) that the NSWQT Model can be applied not just across different subjects but also for different grades and it could be used for a variety of forms of evaluation of teaching and learning activities. However, the model has a cross-cultural applicability such that even when teachers cannot or do not articulate the elements of quality teaching as envisioned by the model they may be teaching in congruence with them. Some attempt is made below to explain why this appears to be the case.

Quality Learning Environment

In the quality learning environment dimension, both the MOE's framework and NSWQT Model emphasise that teachers need to recognise that students need social support. Both frameworks mention techniques for this support, namely that quality teaching creates a classroom culture of learning with high expectations of all students. A quality learning environment was a major concern of the interviewed school stakeholders in the facilitation of quality teaching and learning. These findings are supported by the previous literature by (Ainscow, 1991; Clark, Dyson, & Millward, 1995; Fraser, 1994, 2002; Kaplan & Owings, 2001; Killen, 2005; Lane & Walberg, 1987; Reynolds et al., 2003; Teddlie, Kirby, &

Strinfield, 1989; Walker & Murphy, 1986) that argue that the teaching and learning environment, whether at the classroom level or at the whole school level, plays an important role in quality teaching and learning. Congruently and unlike the lack of verbalisation of the elements of intellectual quality, the Jordanian school stakeholders mentioned social support as a fundamental element in the teaching and learning process.

Most of the NSWQT Model's elements for this dimension emerged in the MOE's framework. The framework claimed quality teaching can only be implemented in an environment where students demonstrate engagement by paying attention and listening carefully to the teacher and following carefully the learning requirements. Students should willingly co-operate with each other in class, learn from one another and encourage other students to work as a team, while also being willing to work independently and to take full responsibility for personal activities and products. The MOE framework suggested that students should regulate and direct themselves with complete commitment to the completion of all their work, with only modest guidance from, but while under continual observation by, the quality teacher. All these assumptions about the student's role are evident in the two frameworks of quality teaching. Therefore, this dimension and some of its elements (engagement, high expectation, social support, students' self-regulation and student direction) are congruent with the MOE's framework and to some extent with the school stakeholders' expressed conceptualisation of quality teaching. Teachers, for example, mentioned different ways to accommodate their students and support them socially, psychologically and emotionally; they considered these to be fundamental to quality teaching and learning (see chapter seven).

At the practical level, the dimension of quality learning environment and the majority of its elements were congruent with the teaching and learning practices in the observed lessons (see chapter six). It appears that this dimension and its subsequent elements, which focus mostly on cooperative interactions, occur almost naturally in the day-to-day practices of a humane primary classroom. This is to say that the constructors of the NSWQT Model were quite aware that their 'discovery' of some elements of a quality teaching and learning environment was no such thing since these elements really have existed for a long time because they are considered to be corner-stones in any effective teaching and learning process. For example, social reinforcement is one 'corner-stone' concept in teaching and learning theories ranging from transmission to constructivist. Elements of the quality learning environment dimension often exist as necessary practices in the traditional

classroom, in so far as the physical layout of classrooms are structured for effective interaction and thus, it might be suggested, form one reasonably common characteristic of teaching across many different cultures.

However, while most of the elements of the quality learning environment can be associated with both the transmission and constructivist approaches to teaching and learning, it appears that the demands made by the elements found in the dimensions of intellectual quality and significance are more thoroughly and exclusively constructivist in their requirement for teachers to be creative and to shift from teacher-centred to student-centred instruction. It may be that the Jordanian stakeholders construed such intense constructivism to be a 'threat' to their existing teaching practices and relationships with their students. Therefore, this belief has mitigated their conceptual disengagement with the theory, except where, as with the learning environment. Their acknowledgement of the need for a type of social construction of positive classroom relationships already existed in their understanding of what characterised a quality learning environment.

Unfortunately, while a quality learning environment is important and was the dimension whose elements were most able to be articulated by stakeholders, nevertheless, at least as far as the two frameworks are concerned, the dimensions of intellectual quality and significance are the most important. Their criteria of quality teaching also distinguish most emphatically between the transmission and constructivist teaching and learning approaches. That does not mean the dimension of quality learning environment does not have an important role in the quality teaching and learning process. The constructivist approach in modern educational movements, however, focuses mostly on constructing knowledge and implementing this knowledge in real life. These findings are consistent with previous research (Formosa & Dixon, 2004).

Significance

The NSWQT Model's dimension of significance and most of its elements are congruent with the MOE framework. Both frameworks agree that the quality teacher is expected to provide opportunities for students to make connections to real life, to other subjects and to prior learning and knowledge. The two frameworks were congruent in terms of their pedagogical prescriptions. For example, the NSWQT Model describes this dimension using the concept of productive pedagogy, which 'helps make learning meaningful and

important to students. Such pedagogy draws clear connections with students' prior knowledge and identities, with contexts outside of the classroom, and with multiple ways of knowing or cultural perspectives' (NSW Department of Education and Training, 2003c, p.9). The NSWQT Model considers that quality teaching and learning takes place in an environment in which students are considered to be effective participants and identified as members. Teaching and learning can be meaningful for students if the pedagogy acknowledges students' social backgrounds and prior knowledge, and respects and connects the acquired knowledge with real life outside the classroom. For example, the model considered the elements of background knowledge, cultural knowledge, knowledge integration, inclusivity, connectedness and narrative as fundamental elements that can contribute, in one or other way, to quality teaching and its significance to learning achievement and consequently to the real life.

Similarly, the MOE calls for teachers who understand the importance of creating classrooms that are equitable and safe for all students and accommodate a diversity of student needs. The MOE's framework requires knowledge that can contribute to the social progress of Jordanian society. Furthermore, the framework asks Jordanian educators to be sensitive to a commitment to provide support for all students, regardless of background, so they can benefit equally from learning. Quality teaching and learning, according to the MOE framework, should represent both sexes and also represent, in a positive and accurate way, Jordanians from various geographical, cultural and social backgrounds. In a quality learning environment that has regard for significance, the learning activities should be designed to interest and motivate males and females in a wide choice of potential career opportunities beyond the school context, and motivate students to recognize and enhance positive social developments in Jordan, to identify inequities that still remain, and to develop possible solutions (Ministry of Education, 2006a). These findings are consistent with the research by Biggs (1991); Borich (1999, 2000); Bruner (1960); Christie (1985); Connell (1993); Darling-Hammonc (1997); Dewey (1916); Newmann & Associates (1996); Glasser (1986); Kaplan & Owings (2001); Killen (2005); Meier (1995) that argue that a quality teaching process involves successful knowledge-gaining and the implementation of knowledge into the real life.

The two frameworks were congruent with each other in terms of the significance of quality teaching and learning but incongruent with some of the comments made by the school stakeholders, although, again, some of these elements were congruent with their teaching

practices. For example, the stakeholders did not mention the element of knowledge integration as an important aspect of quality teaching, although it was evident in their teaching practices. It may be that these elements were taken so much for granted that the interviewees did not think to mention them explicitly.

Incongruence

Despite both the NSWQT Model and the Jordanian MOE's framework attempting to introduce what they believed are asserted to be "best practice" into schools in the form of quality teaching and learning there is some incongruity between them. The major incongruities between the two frameworks arise from the histories from which they were derived and from the contexts within which they are expected to operate (see chapter five). Although both frameworks of quality teaching have a common theoretical understanding of the teaching and learning process and how this process functions, the school stakeholders have different perceptions. The two frameworks based on the constructivist approach to the teaching-learning process, focus on student-centred rather than teacher-centred learning.

The main area of incongruence was between the requirements, on the one hand, of the MOE and the NSWQT Model and, on the other, of the perceptions of the school stakeholders of quality teaching and learning. The Jordanian school stakeholders did not use particular conceptions of quality teaching explicitly as they were suggested by both frameworks. When the school stakeholders were asked to articulate their understanding of quality teaching, they still privileged the transmission approach to teaching. That is, they appear to believe that the teacher is the only 'legitimate' source of information, that a quality teacher has a strong reliance on verbal direction and instruction, and that they are the sole classroom manager and only source of authority. Despite these contradictions there is, paradoxically, congruence at the practical level (see also the preceding section). They did not overtly express the teacher's role as a constructivist one in the era of the MOE's 'Knowledge Economy'. They talked about transmission elements of quality teaching, such as controlling the pace, timing, parameters and choices in the classroom and effective ways of dictating the curriculum content. For example, one teacher said, 'My strength is that I am able to control students in the classroom so that I have their attention during the lesson. If a teacher cannot control his class, he will not be able to deliver his lesson activities properly' (Sharefah, February 27, 2005). According to this teacher, students do not have a choice in selecting their learning activities; the teacher controls the

process and is the key source of information. This perspective contradicts the MOE's suggestion of giving students choice over their learning activities and of shifting the instructional role to the student (from teacher-centred to student-centred).

One explanation for this incongruence might be the lack of retraining programmes for stakeholders on the MOE's policy changes, so teachers still regard quality teaching as based on a transmission approach. It may also be the case that even with teacher retraining their orientation towards a constructivist approach remains at a vague theoretical level and not at a practical level. Another explanation may be that the education reform was formulated without consultation with those school stakeholders who were meant to implement the reforms (i.e., it was top-down rather than bottom-up) (Al-Daami & Wallance, 2007; Alshurfat, 2003; Fulan, 1993; Hargreaves & Evans, 1997).

This following section is divided into two sub-sections. The first discusses the significant incongruities between the three authorities' (the MOE, the NSWQT Model and school stakeholders) perspectives on quality teaching and the much lesser incongruities between the perspectives of these bodies and the teaching and learning practices. The second section discusses the general limitations of the model regarding its applicability to the Jordanian primary school context.

Intellectual Quality

In the dimension of intellectual quality, the NSWQT Model highlights two elements considered to be crucial for orientating the rest of the quality teaching and learning process: deep knowledge and deep understanding. The Jordanian framework and the school stakeholders describe these elements, and other elements in this dimension such as problematic knowledge and metalanguage, implicitly and do not position them as essential elements in the teaching-learning process. These elements are, in a sense, incongruent with what has been said by the MOE and the school stakeholders, but only to the extent that they appeared reluctant or unable to explain how and in what ways deep understanding and deep knowledge may be considered to be crucial elements. This may be an oversight, a difference of emphasis, a difference of understanding, or, less likely, a disregard for these elements – it is difficult to decipher which with limited data. The reason might be that the MOE and the school stakeholders are aware of these elements tacitly but not explicitly. These elements were evident in the teaching practices of the school stakeholders but they

were not discussed. The MOE mentions these elements indirectly under different themes and categories, such as in implementing aspects of teaching and learning and when asking for improving the students' ability to connect lesson ideas and concepts (see chapter five). The Jordanian school stakeholders did not explicitly refer to the elements of deep knowledge, problematic knowledge, higher-order thinking, metalanguage, and substantive communication. Nonetheless, these elements were congruent with their teaching practices. This dimension and most of its elements were incongruent with what they said about quality teaching but they were congruent with what they did in the classroom. The school stakeholders may not have been aware of these as important elements in the quality teaching and learning process. Alternatively, the school stakeholders, conceptually, may still believe in the transmission approach to teaching and believe that their practices are congruent with that approach when their observed practices are often clearly congruent with elements that are associated with a constructivist approach to teaching and learning. However, this finding is contradicting some literature (Eisenhart et al., 1988; Green, 1971; Harvey et al., 1968; Hollingsworth, 1989) that argue that teachers' belief plays an important role in implementing elements of quality teaching. Further, belief and action are supposed to work altogether and in a complemented manner. Teachers' beliefs and their connections with what they do inside the classroom is an important factor that can influence quality teaching when it comes to students' learning (Calderhead & Robson, 1991). That influences not only the teaching and learning activities but also their attitudes toward the whole educational process including teacher education pre-service or in-service programmes. However, some studies showed that through effective professional development programmes, teachers' beliefs can be changed towards the requirements of education reform (Richardson, 1994).

In their practice, the element of problematic knowledge was not observed to the degree the frameworks would prefer. This incongruence may be explained by the Jordanian context where the stakeholders consider knowledge from what appears to be an authoritative source to be the 'truth' that cannot be questioned, as in the transmission (teacher-centred) approach. This then replicates itself in turn where the teacher sees themselves as the only source of knowledge and this knowledge is presented as fact and, as a fixed body of truth, is not open to questioning. This element, therefore, presents some contextual hurdles to Jordanian primary schools: the stakeholders' perception to it still immature and the paucity of the MOE's explanation of it work against the MOE's overall vision of quality teaching

to the extent that it is meant to be a consistently constructivist vision. This incongruity tends to slightly undermine the MOE's vision.

At the time of this study, there was a transition process in the MOE policy in terms of the desired teaching and learning skills from the traditional quality teaching criteria to a new criteria based on its new vision for quality education. For example, the new framework for curriculum and assessment was at the beginning of its way to schools. This framework consisted of the new desired skills in teaching and learning based on the MOE vision. The school stakeholders have a superficial knowledge in regards to this framework and they still believe in the traditional way in teaching. Although the school's stakeholders' belief of quality teaching and learning was consistent with the MOE's old checklist of quality teaching criteria, it contradicted some literature (Darling-Hammond, 1997; Glasser, 1986; Killen, 1998, 2003, 2005; Newmann et al., 2001; Newmann et al., 1996; Newmann & Associates, 1996) that argued that teaching and learning is a construction process. The teacher in this process is a facilitator and the student is responsible for constructing his/her own knowledge.

Interestingly, while teachers were much more congruent with the models' prescriptions in their classroom practice than in their verbalisations, there were also some inconsistencies between different subject areas when teacher practices were observed, for example, in their implementation of elements in the dimension of intellectual quality. During the two observed lessons in Samar's classroom, the elements of problematic knowledge, higher-order thinking and metalanguage were more obvious in the Arabic language lessons than in the mathematics lessons. Further to this, congruence between this teacher's practice and the models' requirements in all three dimensions was clearer in Arabic language lessons than in mathematics lessons (i.e., the scores were higher in Arabic language lessons – see chapter six). These findings are consistent with some of the literature; for instance Gore, Griffiths, & Ladwig (2001) argued that some elements of these dimensions are difficult to apply to some subject areas. That argument was before the latest trial (2003) of the model.

An explanation for this inconsistency may be that in Jordan, Arabic is the national language and the language of instruction. Therefore, teachers' and students' knowledge of and facility with the Arabic language are more connected to their real life, school life and everyday practices. This allows teaching in this subject to be more contextually connected

and enable the students to engage in more complex, deeper, subtle and/or sophisticated ways with the tasks at hand. On the other hand, no matter that any student's facility with Arabic, teaching concepts in mathematics requires more special preparation than teaching Arabic. It is claimed that 'there are some knowledges of the world that are inherently more difficult than others, perhaps not because of their links with disciplinarity (that is, that mathematical knowledge is inherently more difficult than knowledge from social sciences), but rather due to our various tolerances or intolerances for them' (McConaghy, 2002, p.14).

It is acknowledged by the MOE and the school stakeholders that knowledge of content is important in teaching particular subjects. Further, it is acknowledged in the literature (Anderson & Burns, 1989; Avery, 1999; Beane, 1993, 1995; Biggs, 1991; Borich, 1999, 2000; Bruner, 1960; Christie, 1985; Connell, 1993; Darling-Hammond, 1997; Shulman, 1987) that knowledge of the subject is a crucial aspect in quality teaching process. However, primary teachers are taught at university to have a broad, relatively superficial knowledge across all subjects, while secondary teachers are taught a subject in depth to teach that specific subject. It may be the case that had this study had been conducted in the context of a secondary classroom, the results for teachers' engagement with and even explication of this dimension and some of its more 'difficult' elements may have been different.

Quality Learning Environment

At the theoretical level, the NSW/QT Model's dimension of the Quality Learning Environment and most of its elements are congruent with the MOE's framework. The statements and actions of the school stakeholders, however, were most incongruent in the elements of student self-regulation and direction. The Jordanian school stakeholders tend to focus on classroom management as the main base-line criteria for teacher quality. The teachers' ability to control their students and their learning activities are admired by the whole surrounding context (see chapter seven). The NSW/QT Model is far less explicit and prescriptive about implementing classroom management, especially when it considers that the organization of the physical environment and the classroom's 'climate' have impacts on classroom management. These ideas are not even considered in the Jordanian framework, and consequently for the school stakeholders, classroom management is seen to be the main duty of the teacher personally. These findings are supported by the previous

literature (Ainscow, 1991; Clark, Dyson, & Millward, 1995; Fraser, 1994, 2002; Kaplan & Owings, 2001; Lane & Walberg, 1937; Reynolds et al., 2003; Teddlie, Kirby, & Strinfield, 1989; Walker & Murphy, 1986) that argue that the teaching and learning environment, whether at the classroom level or at the whole school level, plays an important role in quality teaching and learning. However, it should not be the main focus of the teacher; it is rather to be shared with students themselves. Some literature (Killen, 2005; NSW Department of Education, 2003; Rowe, 2006) argued that classroom management, particularly regulating students' behavior, should not be on the cost of the time of the instruction and students' self-regulation as part of the student-centered constructivist approach.

There are some issues raised in the interviews with the school stakeholders that are not mentioned in either the NSWQT Model of quality teaching or the MOE's framework but which still seem related to the dimension of the quality learning environment. Characteristics such as conscientiousness, honesty, passion, patience and loyalty are considered to be vital personal characteristics for teachers wishing to implement quality teaching practices. These characteristics are seen as guiding the teacher and the teaching process. The explanation for this emphasis on personal qualities and personal responsibility by the teachers interviewed may be because they were committed to Islamic obligations and principles. They felt that doing their job appropriately and using self-monitoring techniques, such as supervision, investigation and evaluation, would be rewarded. Quality teaching was believed to be implemented by a quality teacher who fears God and appeals to God to approve the individual's performance (see chapter seven). Teachers who display the personal characteristics listed above are believed to have the capacity to develop professionally because they are personally dedicated to sacrificing their time and making the effort willingly to improving their students' achievements and to making learning meaningful for them. The opposite is believed to apply to teachers who lack these characteristics.

At the observed classroom level, the element of student-direction was incongruent with the models' requirements. Students believe and accept authorities, such as parents and teachers, and students generally comply willingly with their direction. Students in Jordanian schools generally come from extended families and from a generally 'collectivist culture'; this may explain this incongruence (Rudy, Grusec, & Wolfe, 1999, p.299). This contrasts with western culture, from which the model derives and in which student self-

direction is valued. In western culture, as an 'individualistic culture', children are taught to be autonomous and self-directed and children, ideally, are treated in an 'authoritative' not 'authoritarian' manner (Rudy et al., 1999, p.299).

The crucial point, however, is that the MOE has included this element of student self-direction in its vision for quality education. It is seen as one of the attributes needed for building a knowledge economy. However, the gap between the MOE's requirements and Jordanian culture may ultimately hinder attempts to implement this element and foment teacher and student resistance and resentment. As it is stated in some Jordanian educational context-based research (Al-Daami & Wallace, 2007) that:

In the case of Jordan the issue is not simply about imposing the kind of technically-rational programme of modernization typically founded on western, secular values. The state also faces profound questions around how to hold its diverse communities together around the traditional values, religions, and cultures of an Arabic people while also accommodating migrants and refugees from the surrounding, destabilized regimes. (p. 357)

The element of student self-regulation was also low in some of the observed lessons (see chapter six). Some of the observed teachers were teaching in overcrowded classrooms where they needed to keep constant control of student behaviour to avoid disruptions. Student self-regulation had low congruence with the models' intentions: here the teacher regulated the students; the students rarely fully regulated themselves.

It can be argued that Jordanian culture promotes teacher-centred control and regulation of the classroom; thus the constant reiteration by the stakeholder-informants that quality teachers are able to control their students. The teacher's role as a firm classroom manager is culturally acceptable, with teachers expected to have power and authority over their students. In contrast, the NSWQT Model has the teacher and students interacting more equally with the teacher spending most time and effort facilitating learning rather than regulating student behaviour.

My own experience in the Jordanian school context and my field notes from the observations of teachers for this research sees teachers characterised and self-characterising as 'serious and tough'. Communication and interaction in the Jordanian culture is rather different from that in the cultures where the model was developed. Listening, as an integral part of communication, has been given paucity of attention in Jordanian primary classrooms where multiple interactions take place. I observed often that

since many students started talking simultaneously, then the teacher had to use his/her authority to keep control of the classroom. In particular, the stakeholders saw quality teaching as the ability to implement classroom control in contrast to self-regulation (i.e. teacher control not self control).

The element of student self-regulation as promoted by the models can be difficult to apply when the school stakeholders still perceive student regulation as the teacher's responsibility. This perception has become associated, probably erroneously, in these teachers' articulations (if not entirely in their practices) with other elements expected of the transmission approach to teaching and learning. This has meant that these articulations, at a quasi-theoretical level, all revolve around understanding the teaching-learning process as teacher-centred rather than student-centred. Considerable parts of these teachers' classroom practice denied this rhetorical emphasis. These findings contradict some literature (Glasser, 1986; Groundwater-Smith et al., 1998; Killen, 2005; Meichenbaum & Biemiller, 1998; Zimmerman, 1989) that argues that giving students opportunities to regulate their behaviours provides them with a sense of responsibility for their behaviours, rather than letting all responsibility rest with the teacher. The teacher's role is to have students feel satisfaction for regulating their behaviour when performing their learning tasks.

Significance

The NSWQT Model's dimension of significance and some of its elements are congruent with the MOE's framework, but not with the responses of the school stakeholders. The Jordanian framework and the school stakeholders are both imprecise about asking teachers to acknowledge the existence and impact of cultural knowledge or social background on learning and to integrate this into their teaching (see chapter five and seven). However, there are implicit guidelines provided to teachers by the MOE about dealing with students from different cultures and social backgrounds. Since the MOE is a legislative body of educational reform then it is necessary to provide school stakeholders with blueprint for quality teaching and learning if they (MOE) want their vision to be implemented. School stakeholders cannot guess what is in the MOE back mind. The relationships between both parties are supposed to be built on trust and transparency as it has been addressed in some literature (Dewey, 1916; Organisation for Economic Cooperation and Development, 1994).

There is a common perception in Jordanian society that there is no significant diversity in the Jordanian community in terms of religions, customs and ethnicities. The society is Arabic in nationality and language, Islamic in religion, and has common customs and ethnicities. Nevertheless, there can be socio-economic and political differences within Jordanian society and this is acknowledged by the MOE. In contrast, the NSWQT Model explicitly details the requirement for teachers to acknowledge diverse cultural knowledge and social backgrounds. The model gives teachers some ideas of the ways they could meet the demands and needs of Australia's multicultural society and deal with social diversity in their classrooms.

The NSWQT Model strongly suggests using narrative as a teaching strategy for dealing with cultural complexities, which is also supported by the literature (Christie, 1985; Egan, 1988, 1997; Hymes, 1996; Luke, 1988), while the Jordanian framework does not. The school stakeholders did not mention the importance of cultural knowledge and narrative in the teaching and learning process. However, they did implement the element of narrative, to some extent, in their teaching activities. The observed teachers were mostly using an expository approach to teaching. Some narrative was evident in some observed lessons but rarely in mathematics lessons. In Arabic language lessons, it was evident sometimes because of the nature of the topics being taught rather than being intentionally used as an element of quality teaching. Teachers may not be aware of the importance of narrative in quality teaching and learning.

In the classroom practices, the NSWQT Model's element of cultural knowledge was incongruent with the observed teaching and learning practices. The Jordanian community is relatively homogeneous in terms of religion, ethnicity, race and language. The classrooms observed for this research did not have different cultural groups that allowed the teachers' knowledge of different cultures to be examined. The MOE is aware of the importance of the element of cultural knowledge, but it remains implicit in official documents. The school stakeholders did not mention cultural knowledge and the element was not a feature of any of the 14 observed lessons. Political and social demographic changes in the region (Al-Daami & Wallance, 2007) may make cultural knowledge more of an issue for Jordanian teachers in the future. In multicultural classrooms, teachers need to understand and implement this element as part of the day-to-day quality teaching and learning practices for all students.

Previous research (Johnson & Cupitt, 2004; Keddie, 2005; Loughland, 2006) contradicts the findings of this research in so far as these studies argue that background (cultural) knowledge and narrative are key elements in making the teaching and learning process significant for students. The findings of the present study also seem to contradict earlier literature as to the real centrality of cultural facility for quality teaching (Biggs, 1991; Borich, 1999; Christie, 1985; Connell, 1993; Delgado-Gaitan, 1996; Egan, 1988, 1997; Glasser, 1986; Groundwater-Smith et al., 1998; Hymes, 1996; Killen, 1998; Luke, 1988; Meichenbaum & Biemiller, 1998; Nakata, 1995; Zimmerman, 1989).

To sum up, the most surprising and paradoxical thing revealed in this present research was that the school stakeholders did not mention some elements of teaching practices in the NSWQT Model that were clearly apparent in their teaching practices. Possibly the school stakeholders were not aware conceptually of these elements as elements of quality teaching. They practise them but do not recognize them or possibly lack the 'language' to describe them.

The findings of the research and the views expressed by the teachers about quality teaching are consistent with some of the literature's understandings of quality teaching. Kaplan and Owings (2001) distinguish between teacher quality (the professional characteristics that a teacher brings to the classroom) and teaching quality (the teaching and learning process involving the students, teachers and learning environment). The Jordanian stakeholders seemed able to articulate the first better than the second, while the models placed most emphasis (in fact, almost total emphasis) on the latter. In other words, the technical approach to and appreciation of quality teaching favoured by the models stood at some distance from the stakeholders' need in their articulations to emphasise personal qualities as the key to successful teaching. Despite that the beginning point for the conceptualisation of the elements of quality teaching, whether personal characteristics or technical facility, the research findings are consistent in the broadest sense with Downey et al.'s (1994) definition of the purpose of teaching, which is to produce excellent outcomes for the students and for the school in allowing them to meet future challenges and demands.

In total, most of the MOE's, the NSWQT Model's and the school stakeholders' broad perceptions of quality teaching are compatible in one way or another with the literature's diverse definitions of quality teaching (Borich, 2000; Cole & Chan, 1994; Fenstermacher & Richardson, 2005; Glasser, 1990; Glatthorn & Fox, 1996). They all understand as a

baseline that it is the action of teachers, who have unique and professional characteristics, to maximize their students' achievement academically, psychologically and socially. That some move more towards an emphasis on professional characteristics, while others move more towards an emphasis on technical action and implementation, is reproduced in the inconsistency between the models' largely technical and functional emphasis and the Jordanian stakeholders' emphasis. In the end, it appeared that all acknowledge that since quality teaching is a complex, comprehensive and even totalising process involving multiple and simultaneous interests, aspects and contexts, then some incongruence between models, professional articulations and practices is probably to be expected.

Other Aspects Relating to Applicability

Despite all the congruencies and incongruencies between the model and with what has been said and been done by the MOE and the school stakeholders, the NSWQT Model, in general, has some limitations in its applicability to the Jordanian context. The model does not give attention to the social context of the educational setting. Jordanian schools are attached to, and influenced by, a coherent and consolidated social context. Jordanian society is conservative and collectivist, not individualistic, and has a strong relationship between school and community. Any attempt to introduce a framework of pedagogy, such as the NSWQT Model, will be at risk if it does not consider and share the social and cultural context in which the teachers and students are located. The interviewed school stakeholders understood quality teaching as teaching implemented by teachers who are involved in, understanding, value and appreciate the nature of the surrounding communities. They considered the relationship between themselves and the surrounding community, particularly parents, a vital and inevitable factor that can enhance or hinder quality teaching and learning. These findings are consistent with McConaghy (2002), who exposed the model's limitations in recognising the importance of the community surrounding the school in specific places and the special social conditions and cultural contexts of these places.

There is a major incongruence between the two frameworks in the degree of direction for practices of the quality teaching and learning process. The MOE's framework and the school stakeholders' perceptions are more prescriptive and more detailed in presenting what teachers could do in terms of planning and assessment, and makes explicit what criteria teachers can use and how they can use them. The stakeholders described in detail,

for example, the requirements for lessons and the semester plan for each curriculum area. They talked about assessment in detail, what assessment strategies they use, and the significance of these strategies. The Jordanian framework and the school stakeholders have sought to describe and direct explicitly the desired actions expected by the central authority of teachers, whereas the NSWQT Model is less explicit in directing teachers' activities in the planning stage. The NSWQT Model is more prescriptive and detailed about the quality of teaching and learning interactions inside the classroom. It presents pedagogies that help students, guided by the teacher, to construct their knowledge and subsequently increase their achievement and takes place in an educational setting.

The NSWQT Model does not give alternatives to use in different approaches to assessment. It propagates for an authentic assessment or 'performance-based assessment' to show students' knowledge in situations similar to real life (Killen, 2005, p.128). The model has limitations in its flexibility of using different strategies for assessment to meet the variety of student abilities. Using only one assessment strategy can hinder the teacher from assessing his/her students' knowledge, especially those students who have learning difficulties and other categories of disabilities. For example, a student who has good communication skills can debate, discuss and argue verbally and can benefit from such assessment (Killen, 2005) but the student who is disabled in these skills would be disadvantaged by this type of assessment.

The MOE's framework presents different strategies for assessment. The teacher can use each strategy for different curriculum areas and for a large range of abilities, including authentic assessment. Some of these strategies are associated with the transmission approach in education, but they give the teacher choices of different strategies in different situations and they have an amount of reliability. Students still need to be tested using traditional methods, but some of these strategies can 'complement authentic assessment' so as to prepare students for authentic assessment (Killen, 2005, p.128). Moreover, in some aspects of authentic assessment, students need to access resources outside the school (Killen, 2005); this access is relatively limited in Jordanian schools.

Only a few of these strategies were reported or used by the Jordanian school stakeholders, as they still mainly use the transmission approach in assessment, such as short questions and answers and multiple-choice questions. The incongruence between the NSWQT Model and the MOE's framework is the MOE suggesting different assessment strategies, whereas

the NSWQT Model claims one assessment strategy. There is a more significant gap between the two frameworks and the responses and actions of the school stakeholders. Although the MOE has been able to establish such strategies theoretically, as a legislative and policy body, the hard part is to how to implement these strategies. Alternatively, the teachers may lack orientation about these strategies and how they should be used.

Another limitation of the model's applicability is that it is considered to be a generic model. It treats the pedagogical skills across subject areas as guidelines for all key learning areas, whereas the results in this study show that each subject needs special pedagogical skills. The model may give a general framework for pedagogy but does not give sufficient details for each curriculum area. These findings are consistent with McConaghy (2002); the model did not recognise the subject matter as the core of the pedagogic arena. However, these findings contradict the results of other studies (Johnson & Cupitt, 2004; Keddie, 2005; Loughland, 2006) who argued that the model can be relevant to different curriculum areas. There was an inconsistency between what the MOE said and what the school holders said and did. For the NSWQT Model to be applicable, the context within which it is expected to operate has to be consistent. There has to be a clear understanding of quality teaching and learning rather than an inconsistency in the interpretation of the concept of quality teaching and its practice between policy and practice.

Although the findings of this study revealed that the model has some congruencies with the Jordanian primary school context, it must be remembered this study was conducted with selected teachers, not with 'average teachers'. If the study had been conducted with the majority of teachers in Jordan, the results may have been different. The majority of Jordanian teachers still believe in and practice the transmission approach to teaching (teacher-centred not student-centred), which contradicts the model's orientation (constructivist approach). The point is that for this model to be applied to the Jordanian context different contextual factors have to be suitable and stable. These factors can be at the level of educational policy, which includes curriculum, training and support, mentoring and evaluation, and the social context. School context includes professional leadership, school culture, the teaching and learning environment, the relationship between the school and community, school personnel (qualifications, characteristics, and experience), training and infrastructure, and funding. Teaching and learning practices include what teachers think and believe, lesson planning, implementation of teaching and learning strategies, and assessment. These factors have been explored in the results chapters. These factors in

Jordanian schools are different to the requirements of the NSWQT Model. The boundaries of this study, however, do not allow further discussion of these issues, but this could be investigated in another study.

Regarding the nature of the roles of the student and the teacher in the quality teaching-learning process, both frameworks are generally congruent, at least within the study's boundaries. The roles can be summarised into two statements of assumptions and procedures. Firstly, students possess prior knowledge. They need to come to class ready to build on this knowledge, under the guidance of the teacher, in order to apply learning to real life situations, as useful members of a predetermined social order. Secondly, to achieve this, students have to be involved physically, intellectually, psychologically, emotionally, and socially, that is, totally, in all the teaching-learning activities, procedures and requirements. From this broadest viewpoint, it can be debated whether these frameworks, in total, are particularly liberating for the students, or for the teachers who will be held accountable for the fulfilment of their assumptions and procedures.

To conclude, most of the elements of the NSWQT Model are, to some extent, applicable to the MOE framework. However, neither two frameworks seemed to be applicable to what the school stakeholders reported but were applicable to their actions. The NSWQT Model is consistent with the MOE's future vision and the Framework for Assessment and Curriculum. The MOE aims to develop an education system able to meet national and international labour market needs by preparing teachers and students with the attributes required by a knowledge economy that recognizes and meets global requirements and challenges.

There is a gap between the MOE and the NSWQT Model on one side and the school stakeholders, on the other, in the perception of quality teaching. The school stakeholders, to some extent, still believe in the transmission approach to teaching; they did not mention the concepts of the constructivist approach in teaching and learning in the way these concepts are presented by the MOE and the NSWQT Model. The NSWQT Model and most of its elements are applicable, to some extent, to the Jordanian primary school context, with some reservations about inapplicable elements discussed above. For the model to be completely applicable and subsequently functional, contextual factors need to be considered and prioritized.

Implications

The findings of this study have some significant implications for education in Jordan and, more specifically, for the applicability of the NSWQT Model in the Jordanian primary school context. In general, quality teaching is described in the Jordanian MOE's documents in a similar way to the NSW Quality Teaching documents. Both documents describe quality teaching in a constructivist sense. There are significant commonalities in the philosophical direction of the documents from these two different contexts. However, the Jordanian documents do not conceptualise this philosophical direction in terms of a model of learning and teaching.

The teachers selected for this study were those who, according to the Ministry's current criteria, were high quality teachers. It could be assumed that if teachers are identified by a system as exemplifying the highest standards of that system then key aspects of the system's vision would be seen in the practices of those teachers and in their beliefs about teaching. The teachers participating in this study were using many educational practices consistent with the Ministry's vision statement. They were not, however, able to articulate the principles of that vision statement, which suggests that their practices were not guided by the same theoretical principles. This is not to say that these teachers had no coherent set of beliefs about teaching and learning that informs their practice. A clear finding was that these teachers could articulate the values that maintained their practice. These values included things, such as conscience, honesty and loyalty. It may be that because practices were largely consistent with both the vision of the Ministry and their own values, that at an internal level they shared the Ministry's vision. This interpretation has implications for educational reform in Jordan. Because teachers are actually accepting the Ministry's vision, for further reform to occur, the language they use to describe their beliefs needs to be reflected in the Ministry's documents. This would be consistent with the Ministry's claim that teachers, as a valuable resource, should be empowered to be part of the educational reform.

Another implication of an inability to articulate the Ministry's vision is that the good teaching practices observed in this study may not be consistently applied. If teachers are acting in ways consistent with the Ministry's vision in some lessons but for different reasons, subsequent lessons may occur which are consistent with those different reasons but which may contradict the Ministry's vision. This inconsistency may result in less productive educational outcomes. A further implication is that the Ministry's vision would

not be explicitly activated. Unless those participating in educational reform, the teachers, can clearly and publicly confirm the Ministry's vision, the perception of the public may be that the vision has not been implemented, even though at a practical level it has.

The MOE has described quality teaching in a broad statement and within a general curriculum and assessment framework for the future vision of education in Jordan. However, there are no identifiable, clear, determinant models of quality teaching, which translate the Ministry policy regarding quality teaching. There is no detailed model, then, to guide the academics, administrators and school stakeholders, including teachers. As quality teaching practices are the core of the MOE's vision (see chapter five), it is essential to develop or build a model of quality teaching which allows the educational stakeholders to overcome the difficulties and ambiguities of the concept of quality teaching. This ultimately reflects on the teaching and learning process.

An example of this is that evaluation of teachers in Jordan is currently based on a classroom observation checklist; this checklist includes performance criteria inconsistent with the MOE framework for curriculum and assessment. It is difficult for teachers to implement requirements of the MOE without the teachers being provided with a clear and a coherent model of quality teaching and learning practices addressing the elements of the constructivist approach in teaching and learning desired by the MOE. Such potential models can interpret the policy of the MOE into readily applicable practices that can be used by the educational supervisors and the teachers.

To conclude, there is gap in the perspective of quality teaching between policy and the school stakeholders. The MOE and the NSWQT Model introduce quality teaching best practices, drawing on a relatively new constructivist approach in the teaching and learning process. The school stakeholders perceive quality teaching to be based on the transmission approach. Because of this gap, any future attempts for implementation of the Jordanian framework are likely to be difficult. Although the criteria of the two frameworks were evident in the selected teaching and learning practices of the teachers in this study, it does not mean that this will be the case for all Jordanian teachers.

The NSWQT Model does not give attention to the social context of the educational setting. Jordanian schools are attached to and influenced by coherent and consolidated social context. The interviewed school stakeholders understood quality teaching as teaching

implemented by teachers who are involved in, and understand, value and appreciate the nature of their surrounding communities. Introducing any framework of pedagogy, such as the NSW framework of pedagogy, will be at risk if it does not consider and share the social and cultural context in which teacher and students are located.

From the findings, it can be concluded that there is a gap between the three components (the MOE, the NSWQT Model and the school stakeholders) in terms of assessment strategies. The MOE suggests different assessment strategies, whereas the NSWQT Model claims one assessment strategy. The school stakeholders mention limited assessment strategies. There is a gap between the MOE suggestions and what the school stakeholders are saying and doing. It is hard to implement these strategies unless an orientation and common understanding has been established among the teachers regarding these strategies and how they should be used.

The NSWQT Model is considered a generic model. It treats the pedagogical skills across subject areas as guidelines for all key learning areas, whereas the results in this study show that each subject needs specific pedagogical skills. In Jordanian schools, particularly primary schools, teachers need to differentiate and be creative in their pedagogic skills, depending on the subject area they are teaching. The teaching of mathematics and the Arabic language are presented as examples and discussed earlier in this chapter (see also chapter six).

The interviewed school stakeholders and the MOE, particularly the educational supervisors, do not have a shared understanding of the concept of quality teaching, particularly how to implement quality teaching strategies and the compatibility of implementing a crowded curriculum within a limited time frame. It appears that there was an inconsistency between what the MOE says and what the school stakeholders said and did. For the MOE framework to be implemented, and for the NSWQT Model to be applicable, the context within which it is expected to operate has to be consistent. There has to be a clear understanding of quality teaching and learning rather than an inconsistency in the interpretation of the concept of quality teaching and its practices between MOE and the school stakeholders.

From the findings, the Jordanian school stakeholders do not have a sufficient knowledge of the elements of intellectual quality, such as deep knowledge, deep understanding,

problematic knowledge, higher order thinking and metalanguage, although these elements were evident in their teaching activities. These elements are desired by the MOE, for its future vision for a knowledge economy but not articulated. Yet, it is hard to be implemented by teachers who are not aware of these elements or do not perceive them as important elements leading to quality teaching and learning. Although these elements were evident in their teaching practices, these were teachers selected for their quality teaching; with 'average' teachers the situation may be different. It might be important for all teachers, to meet the new policy of the MOE, to have a solid understanding of the elements of quality teaching based on a constructivist approach in teaching and learning.

In this study, the interviewed school stakeholders did not mention the elements of student self-regulation and student direction as significance elements in the quality teaching and learning process. There is a belief among Jordanian teachers that teachers can assert power and direction over students and this is acceptable to parents and teachers. Their understanding of these elements is inconsistent with both the MOE and with the NSWQT Model. It is difficult to implement such elements if the school stakeholders, particularly teachers, still think the transmission rather than constructivist approach is part of their culture. Furthermore, teachers in Jordan are located in overcrowded classrooms and teachers have to keep the attention of students by regulating their behaviour. School stakeholders perceive the teacher's role as a classroom manager; it is culturally acceptable for teachers have power and authority over their students. There is a gap between what the MOE's suggests, as well as the NSWQT Model and the reality of some cultural concepts and understandings of the nature of interactions between teachers and students in educational institutions.

On the one side, the Jordanian MCE has attempted to impose a package of educational reform, such as its desire for a knowledge economy. On the other side, there are unsolved contextual issues, which can enhance and/or hinder the implementation of this package. The school stakeholders address different contextual issues, such as infrastructure, resources and funding, mentoring and evaluation, relationships with colleagues and community, curriculum quantity, professional training and support, content knowledge, school context, students' social and economic backgrounds, and instructional overload. The implication of this is that, without addressing these issues, it would be hard for the MOE to implement its framework. Equally, it would be difficult for the NSWQT Model to be applied. For example, the NSWQT Model appeared to consider the curriculum to be

sufficiently flexible and free from centralised control that teachers would be able to modify their curriculum-based objectives, allowing teaching activities to produce authentic knowledge for students to be active and productive citizens in their communities. The case for Jordan is different; the MOE has centralized the curriculum. Teachers have no/little choice in selecting teaching activities because they need to abide to rigid lesson and semester plans and they have to cover the whole curriculum content within a limited timeframe. School stakeholders saw the MOE control over the curriculum and the quantity of that curriculum as problems. Studies have shown that a centralized curriculum can influence teachers' performance psychologically and conceptually, and can be a barrier to their creativity and endeavours (Blackmore, 2004; Cohran-Smith & Fries, 2001; Leithwood et al., 2002). A decentralised curriculum can have a positive influence on the learning process by helping students satisfy their needs and demands and this type of curriculum can be more adaptable to students' needs (Adas, 1986; Wijesundera, 2002).

Although the study found that the NSWQT Model can be applied to that Jordanian context, the study was conducted within selected contexts and these contexts do not represent the whole Jordanian educational context (see limitations of the study). The results of the study might be different if the study had been conducted with average teachers in various educational contexts. The interviewed school stakeholders mentioned that the overloaded curriculum and inadequate time to digest this curriculum are important factors influencing quality teaching and these detract from good teaching and learning. An implication of this is that without reducing the curriculum and making its content more relevant to the students' future needs in real life; it will be difficult to implement the MOE's desires.

Future Directions

The NSWQT Model is applicable, to some extent, to the Jordanian primary school context at the practices level. This is shown from the findings of this study, conducted in six primary schools in Jordan. However, the model does not apply to teachers' beliefs about quality teaching and learning. There are potential directions for further research, policy and practices. These potential future directions are addressed below.

Future Directions for Further Research

Several different areas of research could be initiated. These areas are discussed below.

First Research Direction: Education Reform; Conceptualizing Quality Teaching and Learning

Teachers' interpretations of the guiding principles of education reform policies are critical to any reform of education. Considerable research already exists about the significance of teacher's beliefs (eg. shared understanding), and future research could apply some of those insights into the current reform of the Jordanian education system. To what extent, for example, do teachers share the vision of the Ministry but articulate it using a different language? Are the values of the Jordanian people shared by the policy makers and by those to whom the policy applies? The present study focused on the applicability of the NSWQT Model and made multiple comparisons and contrasts between related educational bodies. Further research could be conducted conceptualising school stakeholders as policy implementers. Such research could be theoretically framed by comparing the theoretical and political background of the MOE as a legislative body and the school stakeholders as implementers. While the MOE is busy preparing to reform national educational programs, they still ignore bodies, including the school stakeholders, particularly teachers. Although the education reform has brought some positive results for the education system, there are still controversial issues that need to be resolved before reform plans can be implemented further. School communities, including parents, school stakeholders and administrators, need a deep understanding of the elements of the new constructivist trend in teaching and learning. The present study revealed that there was a division between the MOE's vision and that of the school stakeholders, particularly teachers' beliefs about teaching and learning. In-depth analytical research could be conducted to examine such controversial issues and dilemmas, and hopefully overcome and so close any division.

The proposal for research in this area could comprise several steps. The first step could be an analysis of the MOE's policy-based documents, to clarify the political and theoretical background of these documents and to explore the justifications and the rationales of the resulting policies. By analysing the policy documents, the research would seek to clarify the bases and backgrounds of these documents; are they present purely for the educational stakeholders or do they represent the agenda of some external agencies? Documents can be useful as a data source, but they have some times limited credibility and a lack of accuracy and dependability (Bogdan & Biklen, 1982, 1998; May, 2001; Merriam, 1988). The second step, then, is to validate, and back up the initial research by face-to-face interviews with the policy makers, school stakeholders, and community members, including parents.

The third step is to analyze the collected data, and present the results for formal and public discussions, to suggest solutions. Finally, after examining implementations, these solutions should be evaluated. Such research would reveal the similarities and differences between policy, practices and the context of the educational sites (community), and, accordingly, bring together a shared understanding of the required elements of quality teaching. All stakeholders would work together for better solutions for educational issues in Jordan, rather than working as individuals, and imposing education reform programs that may ultimately fail.

As the current study found a gap between the reality (understanding and practices) and the ideals (MOE's policy) of quality teaching and learning, it is inevitable to ask the following questions: What do the policy makers believe and want? What do Jordanian teachers believe and want? What do students believe and want? What do parents believe and want? What are the country's challenges and needs? These questions and other questions could be guides for qualitative-based research to solve issues hindering the reform of the education system in Jordan. Considerable research already exists about the failings of educational reform experiences; imported 'recipes' for education reform may threaten the culture (country and community), if they do not fail. Each culture or country has unique needs, circumstances and challenges. This applies to Jordan as a developing country that has its own different culture. Attempts to force any inappropriate form of educational reform, which do not take into account that culture singularity, will fail. To avoid such dilemmas and obstacles, it is important to explore these needs and challenges and so answer the above questions to have a clearer picture, and recognise these issues before any attempt to establish new reform and that ultimately will ease the policy makers' tasks in founding a solid platform for the next steps in reform.

Data for this research could be obtained by in-depth face-to-face interviews with policymakers, and school stakeholders, including teachers, students and parents. This technique gives rich and insightful information about what people think of a particular inquiry (Minichiello et al., 1995). Samples for this research can be selected randomly and/or selectively. Selective choices could be key policy makers, such the Minister of Education and the General Director of Education Development. Random selections could be by stratifying samples representing the majority of teachers, students and parents. Individual and focus groups could be conducted. The areas of belief and the desired elements of education to be examined could include: educational policy, curriculum and

pedagogy, beliefs about the purpose of contemporary education, teaching and learning practices and assessment, teacher education and professional development, community support, infrastructure, and funding and resources. Data could be analysed by identifying emerging themes from the interviews or by using grounded theory to reveal the desired elements of quality teaching and learning from the transcribed interviews and the existing educational policy. Results from this research may reveal a clear picture of the requirements of education from the perspectives of all stakeholders. Consequently, these results should contribute to building a strategic plan for the education system, emanating from and being established and based on actual and legitimate needs and challenges of the education system in Jordan.

One of the limitations of this study was that it only involved teachers recognised by the MOE as quality teachers. The results may take another direction if further research involves ordinary or average teachers. Further research with a broad sample of teachers, teaching different years of schooling, would be useful. The influence of different variables, such as teacher gender, teaching subject, school location (urban and rural), teacher qualifications and experience, and the teacher's philosophy or thoughts on teaching could be measured.

An important finding of the study was the incongruence of the NSWQT Model with what the Jordanian teachers believed about teaching and learning. Why are the Jordanian teachers still holding their traditional beliefs (transmission approach) in teaching, whereas teachers in NSW, presumably, use the constructivist approach as suggested by the model? Is it because the traditionalist approach works for the Jordanian teachers, or because the new constructivist approach has been imposed on the teachers, without consultation, by the MOE? These questions and other questions could be triggers for another area of research. The proposal for this kind of research could be designed using comparative research, involving in-depth analysis of official documents, accompanied by interviews and classroom observations, from both Jordanian and NSW perspectives. Again, variables, such as teacher gender, teaching subject, school location (urban and rural), teacher qualifications and experience, and the teacher's philosophy or thoughts on teaching, would need to be considered. This research could give insights and information about the description of quality teaching from different cultural perspectives and practices in different educational and cultural contexts.

By using a stratified sample method, teachers could be selected from the categories 'excellent', 'average' and 'below average'. Each sample could include teachers who teach different grades, from primary to secondary schools, with different key learning areas. Data could be collected by using different techniques, such as longitudinal classroom observation, questionnaires, field notes, and in-depth interviews with teachers, principals, administrators and parents. Data could be analysed using discourse analysis for the interviews and quantitative analysis for the classroom observations and questionnaires. Results from such research would explore different cultural, contextual and philosophical perspectives about quality teaching and learning. These results would eventually distinguish and establish unique frameworks for quality teaching in different cultures, rather than universalize one framework in different contexts.

Second Research Direction: Policy and Practices of Quality Teaching and Learning

The study found an unclear picture about the beliefs and practices of quality teaching. Research into the current situation in Jordan, in terms of the ideals and the realities of quality teaching and learning practices, may provide a clearer picture to the policy makers about the realities and the ideals of the implementation of quality teaching, as it is required by the MOE. This could then lead to further improvement and planning of policy. Questions for such research may include: what are the ideals of quality teaching, as they are perceived by the MOE, school stakeholders, students and parents? What are the actual quality teaching and learning practices in Jordanian schools? What are the factors that can hinder and/or facilitate quality teaching? Such research could entail qualitative and quantitative approaches. To gain a picture of 'ideal' quality teaching, data could be obtained by analysing official documents and the international literature on quality teaching, and by interviewing the key stakeholders. For the 'actual' picture of quality teaching, questionnaires could be used to identify quality teaching and learning practices from the teachers' and students' viewpoints, as well as from classroom observations. Stratiform samples for such potential research can be chosen randomly, such as all school years, teacher gender, teaching subject, school location (urban and rural), and teacher qualifications and experience. The interviews, questionnaires and observations could cover: the definition of quality teaching and learning, characteristics of 'ideal' quality teaching and learning, what actually happens in the classroom, and factors that can hinder and/or facilitate quality teaching and learning. Data could be analysed using descriptive

statistical methods for questionnaires and observations, and identifying emerging themes for the interviews and documents.

The results from such a study could provide a rich revelation of the gap between the 'ideal' and 'actual' picture of quality teaching and learning in the Jordanian context. The aim would be for the MOE and all the stakeholders to work collectively and cooperatively to close such a gap, if it does exist. Furthermore, the results of this kind of research could lead to the next area of research, which is proposed in the following section.

Third Research Direction: Comparative Education and Cultural Differences

Education systems, in the twenty-first-century, have changed in their aims and purposes as a consequence of the era of globalisation and the information revolution. The massive and rapid movement in the global market has created enormous pressure on educational systems, particularly schools, to prepare knowledgeable generations. New concepts, the 'Knowledge Economy' (Welch, 2007, p. 21) and 'Knowledge Society' (Hargreaves, 2003, p. 9), have emerged. These concepts have been explained previously in this thesis (see chapter three and five). But what do we look for in educational systems to meet the requirements and needs of these themes and challenges? What kind of teaching-learning theory or approach can meet these challenges or fill this gap? I acknowledge that significant studies have been conducted to test or examine the effectiveness of specific theories in teaching and learning. However, the field still needs more comprehensive, effective and productive research to present the most effective theory in teaching and learning that can work in the era of globalisation and the knowledge economy, with recognition of the cultural differences between specific nations. For example, two approaches in teaching and learning that could be examined, in-depth and effectively, are the transmission (teacher-centred) approach and the constructivist (learner-centred) approach. It is assumed that the differences between cultures, ways of thinking, values, customs, laws, traditions and the celebration of specific types of communication between teacher and students can reflect the most applicable and appropriate approach to teaching and learning. The constructivist approach, for example, might be more applicable to developed countries. The transmission approach might be applicable and effective in one of the developing countries, especially a country that adheres and is obligated to special traditions and values.

Research conducted in this area could be useful and a landmark for policy makers in different countries. Such research could be conducted by examining the effectiveness of the two different approaches in teaching and learning. The framework for this research could emerge from the new conditions and contemporary issues and requirements of education. Two countries at least should be involved in this research. The experimental method could use two clustered groups in each country. Each group would represent different school years and different curriculum areas in each country. After conducting a pre-test of achievements or standards, one group could be taught using the transmission approach and the other group using the constructivist approach, for at least one year to give time for such approach to activate and elaborate. The teachers would be trained in teaching using both approaches. Both groups would have the same curriculum and the same questions would be prepared for examination. At the end of the academic year, the two groups would sit for post-tests. Statistical analysis of the scores of the two groups in each country could be used to compare the results between groups within the country and between the two countries, considering variables, such as secondary/primary schools, teacher gender, teaching subject, school location (urban and rural), teacher qualifications and experience, and the teacher's philosophy or thoughts on teaching. Results from such research could help policy makers, teachers, students, administrators, and parents in different countries to determine which teaching and learning approach might be useful for and applicable to their educational context in a particular time.

Future Directions for Policy and Practices

It can be concluded from this study that there is gap between the NSWQT Model and the MOE on one side and the school stakeholders on the other side, in their perceptions of the concept of quality teaching and practices. To narrow that gap, the MOE and the school stakeholders need to develop a joint understanding of the concept of quality teaching that can overcome the confusion and ambiguity of interpretation between the two parties, allowing the NSWQT Model to be applied.

For the MOE's framework to be implemented and for the NSWQT Model to be applied, some issues need to be resolved. These issues are the Jordanian teachers' understanding of the teachers' and students' roles in the teaching and learning process. The concept and beliefs come from the teachers' transmission approach to teaching and learning and is connected to other contextual and cultural issues. Both the MOE and the NSWQT Model

introduced quality teaching best practices drawing on the relatively new constructivist approach. This approach calls for teaching to be centred on the student rather than on the teacher. The teacher's role in this process is to be a facilitator and guide for the students, allowing the students to construct their own knowledge and make sense of it, rather than the teacher being a prompter or spoon-feeder. Under this approach students have to be critical thinkers, and problem solvers, and subsequently they should have their own preferences in learning. This does not match with traditional beliefs, not just among teachers but also among students, and their social and cultural context. For the MOE to implement its framework, and for the NSWQT Model to be applied, these issues need to be resolved before any attempts at change. The following section suggests some possible future directions to enhance quality teaching, politically and practically. In the study, the elements of student direction, cultural knowledge, problematic knowledge and narrative were either marginally evident or not evident in the observed lessons. These elements could be highlighted and illustrated in the initial teacher training, and to be part of their teaching education programs as essential elements in quality teaching and learning practices.

It would be more effective if primary school teachers were provided with sufficient pre-service and in-service training programs for pedagogic skills in mathematics, by both the universities and the MOE. The study showed that the applicability or congruence of the three dimensions (intellectual quality, quality learning environment and significance) of the NSWQT Model were more clear in Arabic language lessons than mathematics lessons, with higher scores in Arabic language. This suggests that teacher pre-service and in-service preparation programs for mathematics teaching skills are insufficient.

The primary school curriculum could be updated to meet the needs of quality teaching conditions. The school stakeholders indicated the large size of the curriculum did not correlate with the requirements of quality teaching. A national curriculum conference to create a strategic policy on developing a primary education curriculum that meets students' future needs should be considered. Furthermore, the primary school curriculum needs to be updated, reduced and more time allowed to integrate aspects of instructional content knowledge that would enhance students' knowledge and give teachers and students more time to focus on quality work.

For the MOE's framework to function properly and for the NSWQT Model to be applied to the Jordanian context, some contextual factors have to be considered. Resources, infrastructure and fund allocation for primary schools, especially those in rural areas, should be improved to improve quality teaching. This can be done by building more classrooms and reducing class sizes so that teachers can recognise individual students and their needs, and monitor their progress. Furthermore, primary classrooms need to be supplied with heating systems in winter and air-conditioning in summer; improved working conditions for both teachers and students could contribute to quality teaching and learning process.

Preliminary teacher education and ongoing professional development for primary school teachers could be enhanced. It is the task of the universities and the MOE to ensure that teacher educators are competent and knowledgeable and that all pre-service teachers have sufficient and comprehensive teaching practices before entering the profession. Furthermore, the MOE could update the training and workshops programs for teachers during their professional service. The professional standards for teacher evaluation and mentoring could be extended by providing teachers with the opportunity for self- and peer-evaluation and mentoring. The feedback from this would assist teachers in developing their teaching practices.

Primary school teachers can be motivated and supported by the MOE, colleagues, the school administration, parents and the larger community. That can be implemented, at least in part, by increasing teachers' salaries and allowances to equal those of their colleagues in other professions. The MOE and schools can also give opportunities to teachers to collaborate with their colleagues and experts on pedagogies, to have ongoing professional development, and to be supported by parents and the larger community.

Teacher education programmes in Jordan could be updated and sophisticatedly derived from the MOE vision. Care could be taken in designing relevant policies and implementation plans to promote and support quality teaching policies and practices. Collaboration between school stakeholders will assist and implement more effectively quality teaching elements and develop teachers professionally towards the new quality teaching and learning approaches (student-centred rather than teacher-centred).

Limitations of the Study

The future directions discussed above highlighted some of the limitations of the study. Briefly some of the limitations are now discussed. Any results, discussions and conclusions made in this study are based on a purposeful sample in a particular context and, therefore, limited to that sample. The participants (quality teachers and their principals) in this study were identified by their supervisors in the MOE based on their annual reports and based on particular criteria. They had also received recommendations from their principals, colleagues and parents. The participants were from primary schools. These criteria do not reflect international criteria for quality teaching, but reflect particular criteria from the MOE. Therefore, the results may be generally applied to other teachers or principals within primary or secondary schools in Jordan, and almost certainly not elsewhere. If the study has to be conducted again, a larger sample should be obtained and from different schooling years and for different subject areas.

Another limitation of this study is that the data from interviews were only translated by the researcher. Back translation could be involved if similar research is conducted again. Back translation means the translation of a document, which has already been translated into a foreign language, back to the original language and by an independent translator (Asia Market Research, 2007). Back translation can improve the reliability and validity of research by requiring that the quality of a translation is verified by an independent translator translating back into the original language (Asia Market Research, 2007). Original and back translated documents can then be compared.

Semi-structured interviews were used in this study. If this study were to be repeated, a semi-structured interview can be conducted in depth. This model of interviewing could give more insightful information about the understanding of what accounts as quality teaching and learning. Another limitation of this study was that the content of the interview questions did not necessarily reveal and verify the purpose of the study, which was partly to reveal the school stakeholders' perception of quality teaching. It would be useful if the questions were specifically designed to extract in-depth responses from the interviewees regarding their understanding of the concept of 'quality teaching' and 'learning'.

Contributions to Knowledge

A significant number of studies, describing aspects of education in different areas, have been conducted in Jordan. However, to my knowledge, no previous studies in Jordan have involved the concept of the 'quality teaching' as the recent reform in Jordan was heavily drawn on this concept. This study has contributed new knowledge by opening the way and establishing a platform for a new generation of research to investigate different aspects of the education reform and its applicability to, and implementation in, the Jordanian education context. Although the literature describes the characteristics of quality teaching, there is still a need for, and shortage in, studies investigating the applicability of different models of quality teaching across different cultures.

This study has investigated and discussed theory and practices, showing a gap between the educational policy makers and the potential policy implementers in Jordan. The MOE translate educational reform experiences of some countries in the world and try to implement educational reforms programs, without consulting and considering those who are influenced by and must implement these programs. Therefore, this study contributed to knowledge by revealing that initiatives for education reform, particularly aspects of quality education, should come from inside the country especially from those whom influence and implement these initiatives. Nevertheless, that does not mean not to borrow pedagogic approaches as long as they applicable in the first place to a particular culture.

For the NSWQT Model, it is the first time the model has been tested beyond its original context. This study gave an indication of the extent to which models of quality teaching can be applied in different cultures. The study tried to examine the applicability of a model of quality teaching, developed and tested in a culture different to the one where it is been examined for applicability. By the findings of this study, using the NSWQT Model, the MOE could to put its teaching and learning policy and objectives into an international scale of quality teaching and learning. However, the study revealed that particular issues needed to be considered when the NSWQT model of quality teaching was put into a different context. The current study, for example, found some elements of the quality teaching model touched on sensitivities and traditions of the Jordanian culture, and for that culture it is too soon to apply these elements. Transferring teaching models cross culturally is far from easy. Adapting a new model into a new/different culture needs to be a 'step-by-step' process, with the 'ground prepared' before implementation, if it is to be a success. For example, in this study I found inconsistencies between the MOE and the school

stakeholders in their beliefs about the elements of quality teaching. It is difficult to implement a model of quality teaching unless the ground is ready, politically and practically, for adopting the new model of teaching and learning. There is a need for a measure of the applicability of any model of teaching before there is an attempt to apply that model.

Jordanian teachers have the potential to adopt elements of quality teaching into their teaching practices, if they have been prepared and trained for the constructivist approach in teaching. However, the study revealed confusion among teachers with their personal beliefs about teaching and learning contradicting the MOE's expectations. The study is an early warning to the Jordanian MOE about the applicability of its presumptions on the implementation of its education reform. Therefore, this study contributed to knowledge by recommending that sharing and consistent understanding of concepts of quality teaching between educational policies makers and those who are supposed to implement these policies should be a high priority of policy makers.

This study also revealed differences in the understanding of the different parties about the concept of quality teaching, a subject debated in education circles around the globe. The concept of quality teaching and its implications can be varying from context to context; this is evident when beliefs and practices of quality teaching in a particular context are investigated. The debate about quality teaching and learning will remain on the educational agenda around the world. Hence, this study contributed to knowledge by revealing that the concept of quality teaching needs more depth of understanding in terms of how educational bodies should understand and implement this concept rather than make it a subject for rhetoric debate.

The results of this thesis may assist the MOE and other interested educational stakeholders, when they are putting educational policy programs in place and also for teaching and learning practices. Furthermore, this study presents a research design, instruments and suggestions for further research that could be used by others to investigate similar educational issues.

This study revealed that unless there are coherent and comprehensive connections between educational policy, school stakeholders and the classroom teaching and learning practices, any attempt for education reform, particularly quality education, will fail. The educational movement should be rigorous and inclusive rather than imposing prescriptive policies on

school stakeholders. For example, Beeby (1966) suggests that ambiguity in achieving educational goals can arise from teacher resistance if they consider themselves to have been ignored as stakeholders when changes are made by authorities without consultation. Furthermore, teachers in most cases refuse to abide by changes when they feel marginalised by those who initiate them (Brady, 1987; Morrish, 1976). Teachers sometimes feel threatened by changes because they believe that these changes will jeopardize their traditional way of teaching and related 'professionalism'. The more attached to tradition, and the more they perceive change to be disruptive of that tradition, the more the resistance to the subsequent acceptance of changes that are implemented (Smylie, 1991).

The study contributed to knowledge by revealing that approaches of teaching and learning can be differentiated from culture to culture. For example, in this study it has been revealed that the student-centred approach (constructivist approach) is still new and has not been absorbed by the culture of the Jordanian education system as this culture still believes in the teacher-centred (transmission) approach. From that, it can be said that this study has contributed to knowledge by showing that teaching and learning approaches can be understood and implemented if they are grounded in and applied to a particular culture. In short, the results of this study are consistent with other research (Dasen, 1974; Dasen & Heron, 1981; Irvine & Berry, 1988; Keats & Keats, 1988; Masemann, 1999; Pick, 1980) that argues that cultural differences play a major role in creating applicable teaching and learning approaches and theories. The assumption is that education is immersed in particular cultures and it should not be assumed that something called 'education' in all its aspects exists separately from particular cultures. Therefore, investigating any aspect of education without acknowledging the cultural context of that 'education' can jeopardise the usefulness of such investigations. The example for that was clear in this study, which shows that the concept of quality teaching can only be investigated in its context and this context consists of multiple contextual layers, such as policy, stakeholders and teaching practices. However, it does not mean that theories and models of quality teaching cannot be implemented cross culturally, but these models and theories have to be tested for their extent of applicability before any attempt at implementation.