

CHAPTER FIVE

DESCRIPTION OF QUALITY TEACHING FROM THE PERSPECTIVE OF THE JORDANIAN AND NSW EDUCATION SYSTEMS: RESULTS FROM THE ANALYSIS OF OFFICIAL DOCUMENTS

[The Jordanian MOE's mission is] to create and administrate an educational system based on “excellence”, energized by its human resources, dedicated to high standards, social values, and a healthy spirit of competition, which contributes to the nation's wealth in a global “Knowledge Economy”. (Ministry of Education, 2002, p.9)

The core business of the profession of teaching is pedagogy. As the art and science of teaching, pedagogy is evident both in the activity that takes place in classrooms or other educational settings and in the nature or quality of the tasks set by teachers to guide and develop student learning. Pedagogy focuses attention on the process through which knowledge is constructed, produced and critiqued. Crucially, 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)

Introduction

The aim of this chapter is to describe and then contrast the NSW Department of Education and Training's model of quality teaching with the Jordanian MOE's conception of quality teaching, looking particularly at potential differences in interpretation. These differences become even more apparent in terms of the roles taken by teachers and students in the classrooms compared to the perspectives of the NSWQT Model and the MOE in Jordan. Using a content analysis methodology, this investigation attempts to answer three questions:

- **How is quality teaching described officially in Jordan?**
- **How is quality teaching described officially in NSWQT Model?**
- **What are the areas of comparison and contrast?**

The current Jordanian educational perspectives and their context will be described before the extent of the practical applicability of the NSWQT Model, in different contexts, is investigated. Further, the chapter will explore, in a limited way, the official descriptions of quality teaching from the Jordanian MOE and the NSW Department of Education and Training.

The Perspective of the Jordanian Ministry of Education

Quality Education as the Desired Objective

The MOE sees quality education as ‘the big challenge’ (Ministry of Education, 2002, p.22). It involves, as a first step, upgrading the quality of students and teachers to meet global expectations. The MOE has indicated its desire ‘to upgrade the quality of education in Jordan, enabling teachers and students to develop their talents and aptitudes to contribute in the Knowledge Economy’ (Ministry of Education, 2002, p.22). The main challenge to achieving this is ‘to provide quality educational experiences for all within the limits of available resources’ (Ministry of Education, 2002, p.22). Quality education, from the MOE’s perspective, is a process involving students and teachers (Ministry of Education, 2002). The MOE presumes quality education encompasses quality teaching, which is defined as an interactive process between the teacher and their students. Such interaction should be based on the knowledge of discipline passed from teachers to students to make, ultimately, a significant contribution to Jordan’s knowledge economy (Ministry of Education, 2002). In this sense, Fraser (2002), in the final report to the Vision Forum for the Future of Education in Jordan, concludes his understanding of the qualities of instruction needed in Jordan from the MOE’s perspective:

In the long run, nothing matters more in education and training than the quality of interaction between teachers and their students. Increasing both the disciplinary and instructional knowledge and skills of teachers is likely to be the single most important educational reform investment. Initiatives are required both in the preparation of teachers and in their continuing education. If teachers are to become “learning facilitators” in a connected world of universal information access to lifelong learners, then they will be challenged to maintain their own currency. They will have to be able to employ ICT [information and communications technologies] effectively both to teach and to learn. They will have to respond to escalating standards and be able to adapt their teaching to reflect international best practices. Supporting the quality of teachers and teaching requires investments in training and technology, but it also requires regulatory change to allow the growth of professional autonomy. (p.7)

To achieve quality education, the MOE specified the elements of quality as an overarching perspective. The elements identified by the MOE are: 'the quality of provided services, access to services, a supportive environment, positive human relationships, the quality of recruitment, [and] an effective system of accountability' (Ministry of Education, 2002, p.23). According to the MOE, for quality education to be effective and applicable, the national policy should consider and deal with some key issues, to 'focus on maintaining and improving the quality of education while the number of students served by the system continuously increases, strengthening the link between education and the labor market to reflect changing needs, [and the] adoption of new teaching and learning practices to empower students for life in the global Knowledge Economy' (Ministry of Education, 2002, p.23). The MOE focuses on 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 (Ministry of Education, 2003b). This can come about as a result of the improved interaction between teachers and students through a quality teaching and learning process that applies appropriate teaching strategies involving different elements. These elements and associated concepts will be explained in the following sections.

Achieving Quality Education through Changing the Roles of the Educational Parties

The new development of the education system derived from the education reform attempts in Jordan started in 1987. There were three phases proposed. Phase one was implemented between 1989 and 1995; Phase two between 1996 and 2000, and Phase three between 2000 and 2005 (Alshurfat, 2003; Ministry of Education, 1988; Touqan, 2002). These phases together aimed to develop strategies for change, including the upgrading of teachers' qualifications, paying attention to the physical education environment, and changing the curricula content, as well as encouraging teachers to alter their experience in the classroom toward more involvement for their students, listening to them and asking the students to state their views (Alshurfat, 2003; Ministry of Education, 2002, 2003b, 2006a). Moreover, the MOE encouraged teachers to adopt new teaching methods. According to the MOE:

... the features of desired change concerning the future role of education in achieving lifelong development, developing administrative organisation and main tasks of the Ministry at all levels, bringing about quality change in the student's role, teacher's competence, teaching-learning strategies, electronic connection, and effective utilization of ICT.(Ministry of Education, 2002, p.4)

The vision for the education system in Jordan is to treat the student as the core, heart and the centre of the attention in any initiative by the education authorities. The diagram in Figure 5.1 explains the potential and desired organization of the MOE.

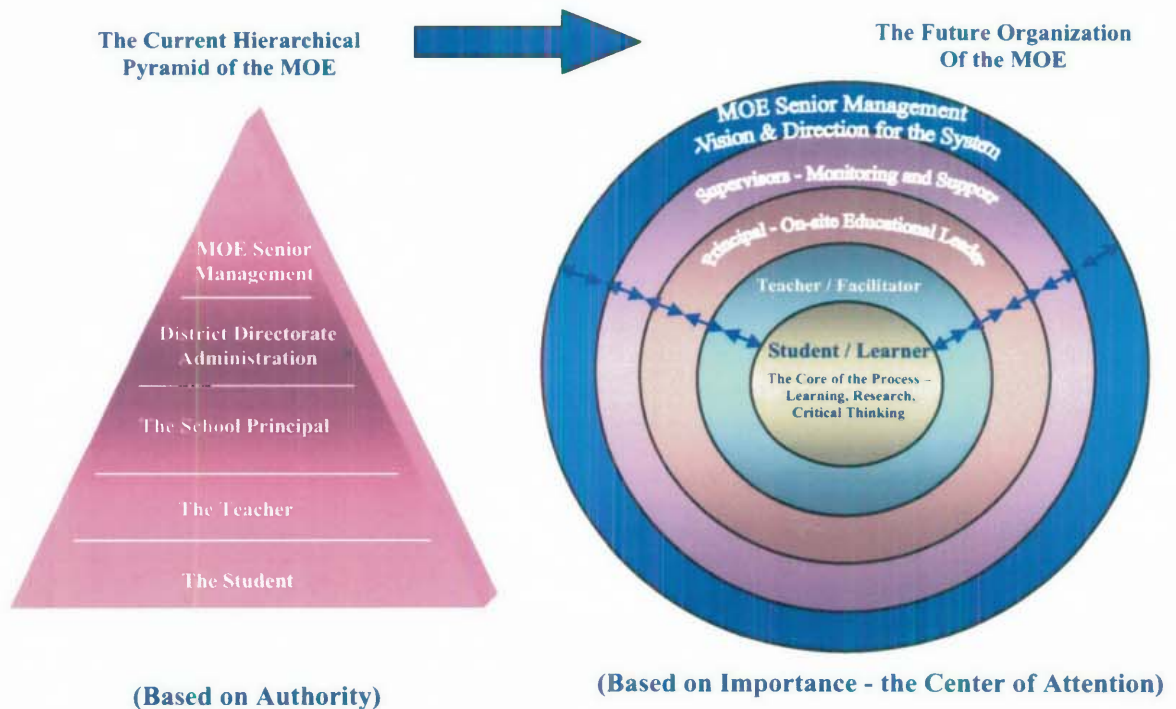


Figure 5.1: The Current and the Future Organization of the MOE
(Ministry of Education, 2002, p.27)

As can be seen from the figure, the relationships between the participants in the education system have to be changed from authority-based to importance-based. The focus and attention of the Jordanian educators should be centralized around the student, not around the MOE as the primary authority. Based on this vision, school leadership practices need to change to develop and contribute to the school plans to achieve educational and community development and goals, and to organise, promote and update continuous professional development programs for school staff (Ministry of Education, 2002). The new tasks for the educational directorates will be: planning beneficial educational programs, supervising and promoting the schools' performance, stating and developing plans, and supporting positive competition and reinforcement among schools (Ministry of Education, 2002). For the MOE, the tasks should be based on general strategic planning

and policymaking at the national level with the cooperation of councils, committees, and wider societal participation, and summative evaluation of plans and programs at the macro-level (Ministry of Education, 2002). Other tasks should be delegated to field directorates and schools (Ministry of Education, 2002).

Within this shift, the students will be the source of any change rather than being in the margin in the current educational organisation. The student's role in the teaching and learning process has to be transferred from the traditional role to a new constructive role (Ministry of Education, 2002). It has to be shifted from the student as a receiver of information, a limited participant, expected to memorize information from textbooks and retain it until exam time to then recall and regurgitate the information (Ministry of Education, 2002, 2004b). The student will shift 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). The relationship between the student and the teacher has to be built on mutual respect and reciprocal interaction, rather than the teacher giving orders and directions that are implemented by the student. The role of the educational supervisor in the school is to be built on advice, guidance and support for the school and the teachers, and to improve and develop the teachers professionally, rather than the supervisor 'playing power politics' (Ministry of Education, 2002, 2004b). The principal in any school is expected to work cooperatively with the District Directorate Administration and the MOE, so that these efforts in the new programs reflect positively and productively on student learning (Ministry of Education, 2002, 2004b). His Majesty King Abdullah II has provided a Vision for Jordan's development.

The Hashemite Kingdom of Jordan has the quality competitive human resource systems that provide all people with lifelong learning experiences relevant to their current and future needs in order to respond to and stimulate sustained economic development through an educated population and a skilled workforce. (Ministry of Education, 2006c)

The King's Vision refers to sustained economic development and this concept has been adopted in the Educational Reform for the Knowledge Economy Project (ERfKE) as the Knowledge Economy. In the knowledge economy, people work to develop and apply good ideas so that all people can enjoy healthy, satisfying lives (Ministry of Education, 2003a,

2003b). Instead of relying on natural resources, for example, and selling them to others, they create new processes and products that will be of help at home and which they can also sell to others (Ministry of Education, 2002, 2003b, 2004b, 2006a). The MOE had established the Educational Reform for the Knowledge Economy Project (ERfKE). This project consists of four components:

- **Component 1:** Reorientation of education policy, objectives and strategy through governance and administrative reform (Ministry of Education, 2003a, 2003b, 2006a)
- **Component 2:** Transformation of education programs and practices for the knowledge economy (Ministry of Education, 2003a, 2003b, 2006a)
- **Component 3:** Support of the provision of quality physical learning environments (Ministry of Education, 2003a, 2003b, 2006a)
- **Component 4:** Promotion of learning readiness through early childhood education (Ministry of Education, 2003a, 2003b, 2006a)

These components were coordinated to assure educational reform. Components 1, 3 and 4 address governance, facilities and early childhood education. Component 2 addresses the curriculum for Jordanian schools (Ministry of Education, 2003a). Major initiatives in the late 1980s created awareness among Jordanian educators of strategies that could be implemented to improve education, and at that time many teachers and leaders were trained. As teachers tried to implement these ideas, however, they revealed that there were impediments and barriers to their implementation (Ministry of Education, 2002, 2003b, 2006a). Some found that it was not easy to join the existing curriculum with the new methods (Ministry of Education, 2003b, 2006a). They felt that the curriculum was very packed and tightly scheduled, and there was limited time allowed for teachers to initiate new methods or resources (Ministry of Education, 2003b, 2006a). A number of teachers tried new approaches, but some felt that the lack of administrative support, equipment and training were more significant problems (Ministry of Education, 2003b, 2006a). Other teachers found that large class sizes made changing teaching methods difficult (Ministry of Education, 2002, 2003b, 2006a; Toucan, 2002). Hence, ERfKE can be implemented only within its context and with support from all the educational parties.

As a consequence of this shift in the education process, the teacher's tasks and role have to be updated from the traditional concept to be consistent with the era of the knowledge economy (Ministry of Education, 2003b, 2006a). This new role needs to keep up and be

consistent with variety in values of the teaching process in the knowledge-based economy. According to the MOE, the 'new' teacher needs to be a 'critical friend' to their students, an effective leader and innovator, able to create an atmosphere of debate which contributes to students' learning, a good observer of actions/events in the classroom and with students, and able to support and consult with their students (Ministry of Education, 2002, 2003b, 2004b, 2006a). Furthermore, the MOE indicated that the desired quality teachers: are individuals who do not stereotype others, regard disagreements as a source of information and enrichment, are good learning facilitators, are able to think critically and encourage that capacity in their students, and are able to learn and reflect on others in their own life-long learning (Ministry of Education, 2002, 2003b, 2004b, 2006a). The MOE identified the desired quality teacher to be: professionally and academically skilled, creative with and ready to meet challenges, and judicious and equitable in their class management (Ministry of Education, 2002, 2003b, 2006a). This perspective of quality education sees the teaching-learning strategies transformed to being student-centred to meet the requirements and challenges of the knowledge economy.

Professional Characteristics of the Quality Teacher who Adopts the Knowledge Economy

According to the MOE, quality teachers are those who create learning environments that encourage students to be self directed self-motivated problem solvers while constructing their own knowledge (Ministry of Education, 2003b, 2006a). Quality teachers are self-directed and cooperatively working with colleagues to improve learning opportunities for students (Ministry of Education, 2003b, 2006a). They dedicate to their own professional development. According to the MOE, Jordanian teachers working within the ERfKE environment require the attributes discussed below (Ministry of Education, 2002, 2003a, 2003b, 2006a).

Shares the Jordanian Vision for Educational Reform

Jordanian MOE's vision is to establish a knowledge economy that encompasses a workforce of creative problem solvers (Ministry of Education, 2002, 2003b). This vision aims to develop an educational community that is motivated to work with students to achieve these skills of knowledge creation and management, data analysis and use of ICT (Ministry of Education, 2003b, 2006a). According to the MOE, quality teachers will have an understanding of the vision and commit themselves to work toward it (Ministry of

Education, 2003b). They demonstrate attitudes of open-mindedness and intellectual curiosity, are facilitators of learning for their students and are lifelong learners themselves (Ministry of Education, 2002, 2003a, 2003b, 2006a).

Reflective Practitioner

Quality teachers as reflective practitioners who think carefully about their teaching and continually seek ways to improve it (Ministry of Education, 2003b). This thinking involves continuous revision of what was and was not effective in assisting students to achieve learning outcomes (Ministry of Education, 2003b, 2006a). Based on this analysis, plans are made for future learning activities. Quality teachers are always exploring and creating new ideas for daily lessons, the teaching of units and different ways of teaching an entire course (Ministry of Education, 2003b). They also are seeking knowledge about how to work effectively with individual students and groups of students with special needs in their classrooms (Ministry of Education, 2003b, 2004a, 2006a).

Collaborate with Colleagues

Quality teachers build relationships with colleagues and talk with each other about ways of improving student learning (Ministry of Education, 2003b). They debate the meaning of educational goals and identify challenges to be met in attaining the goals (Ministry of Education, 2003b, 2006a). Such debate leads to solutions to teaching and learning problems (Ministry of Education, 2003b). Successes are shared with each other so that many students benefit (Ministry of Education, 2003b). Teachers' discussions can also focus on improving learning environments in all educational contexts which will result on enriching the learning of their students (Ministry of Education, 2002, 2003a, 2003b, 2006a). They also use multiple learning resources to recognise the rapid and continual pace with which resources are developed and changed to help them in understanding the educational goals (Ministry of Education, 2003a, 2003b, 2006a).

Use Information and Communication Technology

Teachers preparing students for the knowledge economy keep pace with cutting edge technologies and integrate this technology into their classrooms as individual and group learning tools (Ministry of Education, 2003b, 2006a). The effectiveness of technologies is evaluated and refinements are made for the best use of ICT for supporting teachers' work and student learning (Ministry of Education, 2002, 2003b, 2006a).

Grow and Develop Professionally

ERfKE teachers take responsibility in developing themselves professionally (Ministry of Education, 2003b, 2006a). They consider what needs improving in their classrooms and seek advice from their colleagues and they take risks and initiating new ideas (Ministry of Education, 2003b, 2006a). ERfKE teachers also seek opportunities to consider overall improvements in education with colleagues in different forms (e.g. participating or presenting at workshops and conferences) (Ministry of Education, 2003a, 2003b, 2006a).

Build Relationships with Parents and the Community

Quality teachers build relationships with parents and members of the school community. They provide frequent information to parents about the instructional program in which the student is enrolled and about the individual student's progress toward learning outcomes (Ministry of Education, 2003b, 2006a). They can do this through adding useful comments on the reports they send home or through arranging more frequent meetings with the parents (Jaradat, Obedat, Abugazalah, & Abdullatef, 1983; Ministry of Education, 2003a, 2003b, 2006a). Teachers also seek feedback about the type of learning strategies that work effectively for the student and give the parents good ideas for helping the students at home (Ministry of Education, 2003b, 2006a). The student, parents, and teacher work together to improve students' achievement (Ministry of Education, 2003b, 2006a). Effective teachers encourage input from parents and members of the community to identify ideas and local issues to be used for different teaching and learning projects (Jaradat et al., 1983; Ministry of Education, 2003b, 2006a).

Stages of Development for Teachers

According to the MOE, one of the most frequently asked question in times of significant change is 'How do we achieve that?' Even when people have a description of the changes that must occur, they are often doubtful about the practical steps to be taken (Ministry of Education, 2003b, 2006a). According to the MOE, there are some predictable stages of change and development for teachers as they align their practice with the goals of ERfKE and the vision of the learner embodied in the General Outcomes (see Appendix D) (Ministry of Education, 2003b).

Jordanian Vision and Curriculum Development

In response to the new challenges of comprehensive education reform and to comprehend the new variables, the development of a new curriculum for Jordanian education became inevitable. Jordan began a four-year process of rewriting the curriculum for basic and secondary education (Ministry of Education, 2003b, 2006a). The new curriculum provides new definitions of what students need to know, be able to do, and understand (Ministry of Education, 2003b, 2006a). These new 'curriculum outcomes', according to the MOE, will lead to improved learning for Jordanian students (Ministry of Education, 2003b, 2006a). Schools will use the new curriculum as the base for teaching and learning programs which meet the needs of their students (Ministry of Education, 2003b, 2006a).

The Education Reform for Knowledge Economy (ERfKE) initiative has been created to support this vision. ERfKE puts students in the centre of the teaching-learning process as responsible people and future citizens of a knowledge economy (Ministry of Education, 2003b, 2006a). The goal is to provide a school experience that develops each student's capacity for understanding and lifelong learning (Ministry of Education, 2003b, 2006a). According to the MOE, the focus will not be on memorizing a body of knowledge, but rather on developing the ability to apply knowledge thoughtfully and live with integrity in a changing world (Ministry of Education, 2003b, 2006a). Students will be able to use information and communications technologies (ICT) to further their learning and to contribute to the King's Vision of Jordan as the ICT hub of the Middle East (Ministry of Education, 2002, 2003b, 2006a). The new curriculum is based on the concepts of core curriculum and outcomes. Core curriculum specifies what every student should know and be able to do, but gives choices for teachers to use a variety of quality methods and introduce supplementary topics and resources beyond the textbook to meet students' interests (Ministry of Education, 2003b, 2006a). Outcomes focus the curriculum on what the student learns (Ministry of Education, 2003b, 2006a). Teachers are encouraged to vary their methods so that if the student is did not achieve learning in one way, the teacher will persist with a different approach (Ministry of Education, 2002, 2003a, 2003b, 2006a). The curriculum outlines the outcomes for all subjects and grades (Ministry of Education, 2003b, 2006a).

Curriculum Based on Outcomes

General Outcomes

The General Outcomes have been developed using input from different sources (Ministry of Education, 2003b, 2006a). First, they are consistent with the Kingdom's Philosophy of Education and the Constitution of Jordan (Ministry of Education, 2003b, 2006a). Second, they reflect ideas gathered from large numbers of educators in senior roles in the Ministries and Universities, and from teachers and supervisors in the Directorates (Ministry of Education, 2003b, 2006a). They identify what the graduate should know, be able to do, and be like (Ministry of Education, 2003b, 2006a). Curriculum design, content, delivery, and assessment are based on these General Outcomes (Ministry of Education, 1988, 1994, 1996, 2002, 2003a, 2003b, 2006a; Tougan, 2002).

The Use of Learning Outcomes

Schooling has often been based on academic traditions that emphasize what the teacher should teach within specified timeframes (transmission approach) (Ministry of Education, 2003b, 2006a). According to the MOE, the use of learning outcomes differs from this approach by basing curriculum on what students need to know and be able to do, while giving the teacher choice to choose the timing, methods and resources for their classes (Ministry of Education, 2003b, 2006a). The teacher may select groups of outcomes and create units that are especially suited to the interests of the class rather than following set units (Ministry of Education, 2003b, 2006a). Resources beyond the textbook can serve an important role in developing lessons that appeal to student interests and meet their needs (Jaradat et al., 1983; Massaad et al., 1999; Ministry of Education, 1988, 1994, 1996, 2001, 2002, 2003b, 2004b, 2006a). General Learning Outcomes describe the vision of an educated Jordanian. They are not discrete skills or lists of required knowledge but rather describe the overall characteristics of how a learner will use the knowledge, abilities and attitudes developed as a result of study in all subjects (Ministry of Education, 2003b, 2006a). Achieving these outcomes empower students to take responsibilities of their own lives (Jaradat et al., 1983; Ministry of Education, 2002, 2003a, 2003b, 2004b, 2006a).

Based on the learning outcomes, teachers and students need to stage learning in all subjects so that students are developing the important characteristics described in the outcomes throughout their schooling (Ministry of Education, 2003b, 2006a). These are the

characteristics of a lifelong learner (Ministry of Education, 2003b, 2006a). In addition to providing a description of characteristics that are developed throughout schooling, the General Outcomes provide the basis for ‘developing down’ to specific classroom outcomes as is described in Figure 5.2.

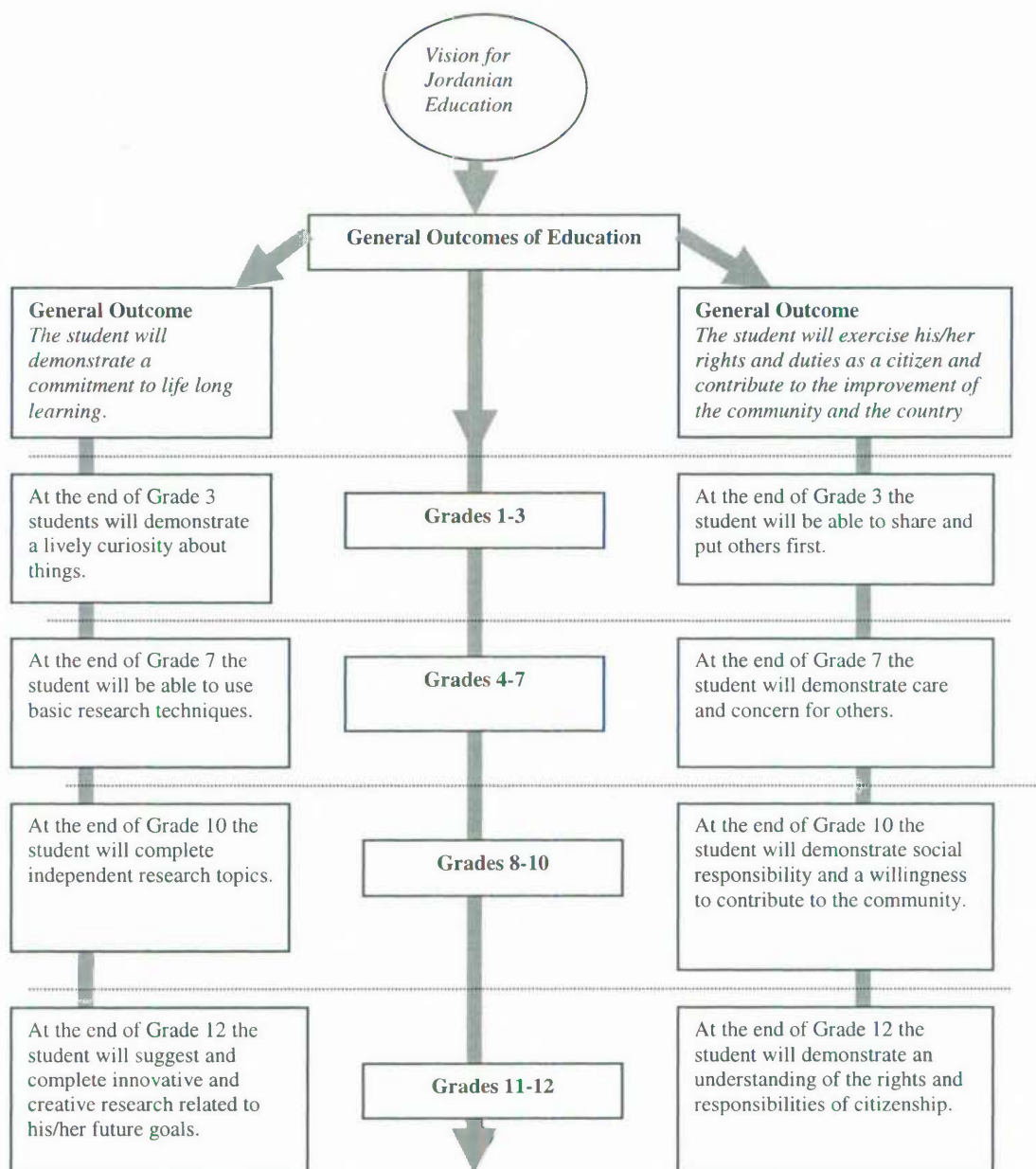


Figure 5.2: The General Outcomes for Education Under the Vision for Jordanian Education

(Ministry of Education, 2003b, p.12)

Planning and Instruction Using an Outcomes Curriculum

Planning Based on Outcomes

It is important to note how individual teachers use an outcomes curriculum. The present curriculum in Jordan provides teachers with detailed 'units' which outline objectives and teaching methods in a very structured way (Ministry of Education, 2003b, 2006a). According to the MOE, the new curriculum requests teachers to model the qualities they need to develop in their students' knowledge (Ministry of Education, 2003b, 2006a). They need to demonstrate greater innovation and creativity in their lesson activities, more varied methods of assessment to match the new vision of the learner, and a larger range of classroom resources (Ministry of Education, 2006a). Teachers need to be trained in the kind of planning outcomes the new curriculum requires (Ministry of Education, 1988, 2003b, 2006a).

When teachers use an outcomes-based curriculum, they do not usually begin their planning with instructional strategies or learning activities (Ministry of Education, 2003b, 2006a). According to the MOE, they start with the learning outcomes because the outcomes are most central to student learning (Ministry of Education, 2003b, 2006a). Because it is impossible to teach all curriculum outcomes in a limited time, teachers need to make the right decisions about how to group outcomes in ways that will interest students, emphasize essential understanding, and reflect prior and future learning (Ministry of Education, 2003b, 2006a). Some outcomes will need to be addressed repeatedly; others may not (Jaradat et al., 1983; Ministry of Education, 2003b, 2006a).

Furthermore, quality teachers need to decide how students will demonstrate achievement; that is, how students will demonstrate that they have achieved the outcomes (Ministry of Education, 2003b, 2006a). According to the MOE, once the key outcomes have been selected, teachers need to design a variety of assessments that will provide evidence the desired learning has been achieved (Ministry of Education, 2003b, 2006a). Some assessments, such as quizzes and tests, generally assess knowledge and recall (Ministry of Education, 2003b, 2006a). Other assessments, such as projects, essays and open-ended responses to questions, are better suited to assessing students' thinking at the higher levels of thinking, such as comparison, synthesis and evaluation. Students preparing for the

knowledge economy need higher level skills more than simple recall (Jaradat et al., 1983; Ministry of Education, 2003b, 2004a, 2006a).

Based on the above, quality teachers need to choose suitable teaching-learning activities. According to the MOE, teachers should begin the process of planning what needs to be taught and the activities that will be most effective after they have determined how students can demonstrate their achievement of a group of outcomes (Ministry of Education, 2003b, 2006a). They are supposed to choose activities based on their prior knowledge of the students' interests and the resources they have available (Ministry of Education, 2003b, 2006a). All activities should contribute to providing students with the needed knowledge, skills and understanding (Jaradat et al., 1983; Ministry of Education, 2003a, 2003b, 2006a). In more practical terms, the MOE acknowledges the teachers who, in planning their lessons, pass on the following elements and criteria:

- Clarity, by avoiding ambiguity in meaning
- Comprehensiveness, by covering all the subject outcomes to be achieved throughout the semester
- Applicability, by applying the semester plan efficiently and effectively in relation to cost, effort and time, and flexibility of the semester plan for unexpected events
- Timing, by distributing content items adequately and specifying the number of periods required for each unit
- Applicability of assessment, by using a variety of assessment techniques to guarantee that the specified outcomes have been achieved
- Appropriateness of methods, aids and activities, by the using efficient methods to fulfil the specific outcomes and efficient activities and learning resources being available to fulfil the specified outcomes (Ministry of Education, 2004a).

According to the MOE, the following diagram in Figure 5.3 describes the planning cycle that teachers should use (Ministry of Education, 2003b). Planning and selection of resources are very important activities for teachers (Ministry of Education, 2003b, 2006a). They need to be more conscious of the specific needs of students in their classes, and more aware of the range of resources, particularly ICT resources, which can supplement the traditional textbooks (Ministry of Education, 2003b, 2006a).

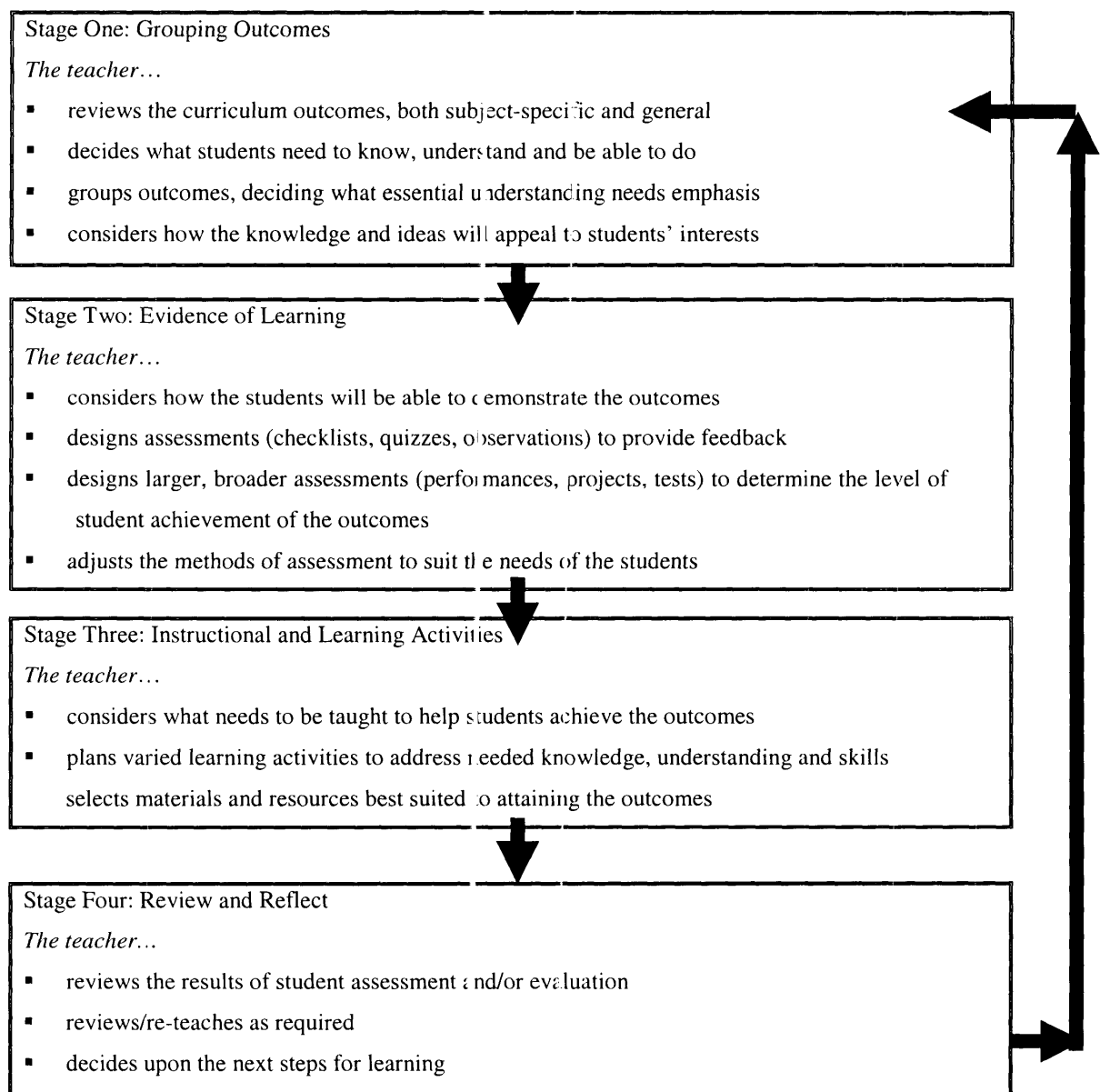


Figure 5.3: Planning Cycle That the Teacher Can Use for Teaching Activities
(Ministry of Education, 2003b, p. 15)

Implementation of Teaching and Learning to Achieve Curriculum Outcomes

Because students are the core of the teaching and learning process, student-centred teaching and learning is designed to meet the needs of the student. Quality teachers plan their instructional strategies to challenge all learners and to support the learners to meet the curriculum outcomes (Ministry of Education, 2003b, 2006a). From the MOE's perspective, the following principles of teaching and learning reflect current best educational practices and take into consideration psychological, environmental, developmental, and cognitive factors that can affect the student's ability to learn (Ministry of Education, 2002, 2003a, 2003b, 2004b, 2006a).

Quality Teaching and Learning Leads to Deep Understanding

Because learning is not passive, students are supposed to actively participate in learning (Ministry of Education, 2003b, 2006a). Quality learning tasks have a clear purpose and require students to create knowledge from new experiences that make connections to their prior knowledge (Ministry of Education, 2003b, 2006a). According to the MOE, active participation is likely to occur when, for example, students work with materials or develop new ideas or products, respond to higher order questions (e.g. analysis, application, synthesis, evaluation) instead of lower-order questions (e.g. restate facts, recall a procedure, state what, when, where), and spend more time in discussion activities where they become involved and respond to ideas (Jaradat et al., 1983; Ministry of Education, 2002, 2003b, 2006a).

Different Learning Needs of Students can be met by Using a Variety of Teaching Methods

According to the MOE, a variety of teaching methods is required to address different learning approaches and to allow students to benefit from exposure to their preferred and non-preferred learning styles (Ministry of Education, 2003b, 2006a). For example, according to the MOE, students benefit when: (1) an activity includes discussion, the use of ICT and concrete materials to allow different ways to experience and understand a new concept; (2) hands-on activities promote learning by doing; (3) more senses are used in learning, making more connections with the brain; (4) assessment opportunities allow students to show their understanding in a variety of ways; and (5) group activities developing teamwork and interpersonal skills, as well as individual learning activities, are used (Jaradat et al., 1983; Ministry of Education, 2003b, 2004a, 2006a).

Student-Centred Activities Enable Students to Achieve and Apply their Learning to Life

According to the MOE, a curriculum or classroom that is learner-centred allows consideration to be given to individual students as needed (Ministry of Education, 2003b, 2006a). Teachers do not judge their own success exclusively by whether they have presented all the subject material (Ministry of Education, 2003b, 2006a). They focus on maximizing learning for their students and following the interests and abilities of the students (Ministry of Education, 2003b, 2006a). According to the MOE, teachers should enable students to attain the highest level of achievement possible, regardless of the respective student's aptitude (Ministry of Education, 2003b, 2006a). With the help of their teachers, students learn productively when they are challenged, encouraged and motivated to reach beyond their current level of knowledge – both teachers and students should have high expectations of the learning process and themselves (Ministry of Education, 2003b, 2006a). Also when they set high standards for themselves, and work hard to meet the standards, they have set 'quality learning criteria' (Jaradat et al., 1983; Ministry of Education, 2002, 2003b, 2006a).

Significance of Teaching and Learning

Real-life activities are those that relate to the world of the student outside of school (Ministry of Education, 2003b, 2006a). The use of real-life activities motivates students to learn, helps to illustrate new concepts, and helps students' knowledge (Ministry of Education, 2003b, 2006a). Lessons that involve topics of interest help students to make connections to what they already know and to develop new concepts with connections to the world outside of the school (Ministry of Education, 2003b, 2006a). Further, students can develop inquiry skills, explore and make connections, develop their creativity and ability to apply their knowledge in imaginative ways and help them to analyse issues and solve problems (Jaradat et al., 1983; Ministry of Education, 2003a, 2003b, 2006a). Students need support to see the connections between school work and their own lives as related to the family, the community, the environment, and global society (Ministry of Education, 2003b, 2006a). According to the MOE, learning activities that are planned to create these connections will seem purposeful and meaningful to students (Ministry of Education, 2003b, 2006a).

For these principles and elements to work, the teachers and students should select, cooperatively, some of the following teaching and learning strategies. These strategies are specified by the MOE as options for the teachers and the students. The selected strategies being that most appropriate to the teaching and learning situation (Ministry of Education, 2003b, 2006a).

Teaching and Learning Strategies that Meet Quality Teaching Practices

When teachers work with an outcomes-based curriculum, they need to think about the results they want to achieve for student understanding and learning (Ministry of Education, 2003b, 2006a). The MOE designed a range of strategies for teachers to choose from to achieve the desired learning, but the teaching and learning strategies need to be those with which the teachers are comfortable (Jaradat et al., 1983; Ministry of Education, 2003b, 2006a).

It is important that a teaching strategy is selected with an underlying rationale (Ministry of Education, 2003b, 2006a). For example, for a teacher to say: 'Today, we're going to do group work', they have to know why working in groups is the best way to achieve a particular knowledge (Ministry of Education, 2003b, 2006a). According to the MOE, teachers need to have selected group learning after thinking of other possible strategies (Ministry of Education, 2003b, 2006a). They need to have decided that the benefits of group activity are best suited to the learning that the outcome describes (Jaradat et al., 1983; Ministry of Education, 2003b, 2006a).

In the following section, some examples of teaching and learning strategies are described in detail, with information about the benefits of each and suggestions for the application and the role of the teacher and the students in each strategy. The teaching strategies included are grouped as: *direct instruction, problem solving and investigation, group learning, and activity-based learning* (Ministry of Education, 2003b, 2006a). In the following section, the researcher illustrates one teaching strategy that is mentioned in the MOE' Framework for Curriculum and Assessment.

Learning Strategy: Using Critical Thinking

Critical thinking is the use of analysis, evaluation and reflection (Ministry of Education, 2006a). It requires creativity and independence (Ministry of Education, 2003b, 2006a). Critical thinking involves: *metacognition* – students thinking about their thinking,

monitoring their own learning, and reflecting back on what has been learnt (Ministry of Education, 2003b, 2006a); *visual organisers* – students creating pictures of their thinking, including concept maps, webs, graphs, maps, and charts; and *analysis* – students analysing media, statistics, and issues, such as bias and stereotypes (Ministry of Education, 2003b, 2006a). In general, the MOE values highly teachers able to demonstrate the following elements and criteria in their implementation of the teaching and learning process. The quality teacher:

- presents an appropriate lesson, that provides the students with a meaningful and organised framework of ideas, principles and information
- demonstrates a reasonable mastery of language, both written and/or spoken, showing good command of intonation, vocabulary or grammar
- motivates students, asks well-organised probing questions, and reinforces student answers by highlighting the importance of the lesson outcomes in the students' life
- encourages self-independent learning by providing students with activities that enhance self-independent learning and encourage student autonomy
- utilizes brainstorming and problem solving by emphasizing higher-level thinking (synthesis, analysis and evaluation) and emphasizing students' initiative and constructive ideas
- presents material in a logical sequence, gradually presenting concepts, ideas and tasks
- uses language related to real-life situations by using the language in daily-life experience
- integrates other school subjects into the lesson for examples and clarity and teaching aids
- allows effective classroom interaction (teacher with students and students with students) by focusing on learner-centred instruction, so maximizing student contributions and minimizing teacher contributions
- utilizes ICT effectively (when applicable) by using appropriate information and communication technology to achieve the prescribed outcomes
- encourages students to express themselves orally and in writing by allowing students to interact with each other and with the teacher using spoken and written language (Ministry of Education, 2004a, 2006a).

Teaching and Learning Environment

Jordan's new curriculum provides all students with an opportunity to learn. According to the MOE, student learning is influenced by a number of factors, including the student's learning needs, gender, geographical location, and social background (Ministry of Education, 2003b, 2006a). Quality teachers understand the importance of creating classrooms that are equitable and safe for all students and accommodate a diversity of student needs (Ministry of Education, 2003b, 2006a). The following sections will describe the desired elements of the quality learning environment from the MOE's perspective.

Equity and Safety

Successful classrooms do more than provide students with basic competencies (Ministry of Education, 2003b, 2006a). They promote Arabic and Islamic values, beliefs and traditions, and foster positive social development (Ministry of Education, 2003b). It is important that the curriculum in Jordan reflects the wide range of behaviours and attitudes available to all citizens (Ministry of Education, 1994, 2003b, 2006a). According to the MOE and to contribute to the social progress of Jordanian society, educators need to be sensitive to their commitment to provide and support all students, regardless of background, so they benefit equally from learning (Ministry of Education, 2003b, 2006a). The learning materials is expected to present males and females in a variety of domestic and career roles (Ministry of Education, 2006a). The learning materials should represent, in a positive and accurate way, Jordanians from various geographical, cultural and social backgrounds (Ministry of Education, 2003b, 2006a). In the quality learning environment, the learning activities should be designed to interest and motivate gender groups in a wide choice of potential career opportunities, motivate students to recognize and enhance positive social developments in Jordan (Jaradat et al., 1983; Ministry of Education, 2002, 2003b, 2004b, 2006a).

According to the MOE, teachers have a responsibility to ensure that students work in a safe environment and follow established safety procedures (Ministry of Education, 2003b, 2006a). Problems and difficulties with safety in the schools' environment need to be identified and appropriate action taken to overcome these (Ministry of Education, 2003b). Also in the quality learning environment, equipment should be properly maintained and repaired, with students instructed on the proper usage (Ministry of Education, 2003b, 2006a). The teachers have to observe their students while they are using any equipment,

and ensure they are adhering to the safety rules and procedures (Ministry of Education, 1988, 2002, 2003b, 2006a).

Accommodating Student's Needs

Classrooms are made up of a variety of students with differing needs and abilities. Quality teachers need to consider not only the rate at which students learn, but also the way they learn (Ministry of Education, 2003b, 2006a). According to the MOE, quality teachers should also take into account those students who have been identified with specific learning disabilities, or who are gifted learners (Ministry of Education, 2003b, 2006a). Quality teachers choose instructional strategies and learning resources that accommodate the needs of all their students, using different strategies to assist them to meet these needs (Jaradat et al., 1983; Ministry of Education, 1996, 2003b, 2006a). One of these strategies is environment adaptation. According to the MOE, quality teachers use cooperative activities and experiences that encourage students to help one another, varying the students' working partners and teams to ensure a diversity of student interaction; modify the physical set up of the classroom by ensuring the required teaching aids are readily accessible and the classrooms well lit and well ventilated; and promote cleanliness and organization in their classrooms and for their students (Ministry of Education, 2003b, 2006a). Moreover, quality teachers manage and promote humanistic relationships between themselves and their students, and among their students (Ministry of Education, 2003b). By showing a friendly, professional manner and relationship with their students, good relationships between the students are encouraged, positive behaviour is reinforced and negative behaviour discouraged (Ministry of Education, 2003b, 2006a). The second strategy is to adapt the teaching materials, whereby quality teachers are encouraged to use multi-sensory, hands-on materials as well as print materials and support materials, such as study guides and word-processed notes (Ministry of Education, 2003b, 2006a). The third strategy is to adapt instruction methods to allow students to demonstrate their understanding using a variety of methods (e.g. posters, display models, puzzles, games, media presentations) (Ministry of Education, 2003b, 2006a). Quality teachers enable students to repeat the instructions orally and integrate technologies, such as learning tools, checking frequently for understanding (Ministry of Education, 2003b, 2006a). Instructions, both written and oral, can be broken down into small steps and important ideas and concepts highlighted and extra time for activities allocated to accommodate student needs (Jaradat et al., 1983; Ministry of Education, 2003b, 2006a).

Assessment and Evaluation of Learner Outcomes

When curriculum changes and instructional practices change, it is essential that assessment practices also change (Ministry of Education, 2003b, 2006a).

Assessment for Improved Learning

Assessment is an on-going process aimed at improving both student learning and the instruction provided by teachers (Ministry of Education, 2003b, 2006a). Quality assessment builds skills on self-assessment and reflection both for the student and for the teacher (Ministry of Education, 2003b, 2006a). According to the MOE, a good system of assessment, evaluation and reporting should be based on clearly-stated student outcomes (Jaradat et al., 1983; Ministry of Education, 2002, 2003b, 2006a).

In the past, assessment and evaluation have tended to have a focus which was narrower, such as recall and application of knowledge and skills (Ministry of Education, 2003b, 2006a). In the current global context, a broader range of outcomes at higher levels of thinking (such as analysis) is required to be certain that students understand the knowledge, demonstrate the skills and develop the attitudes for lifelong learning and productive citizenship in a knowledge economy (Jaradat et al., 1983; Ministry of Education, 2003a, 2003b, 2004a, 2006a).

Teacher assessment and student self-assessment encourage both students and teachers to take more responsibility for achieving these learning outcomes (Ministry of Education, 2003b, 2006a). Through self-assessment, students are encouraged to think carefully about their learning goals and how they are progressing (Ministry of Education, 2003b, 2006a). Quality assessment practices encourage teachers to reflect on student needs, revise teaching methods, and encourage student success (Ministry of Education, 2003b, 2006a).

Information and Communications Technologies (ICT)

A Variety of Uses

According to the MOE, Information and Communications Technology (ICT) has many uses, including communicating, locating and managing information, and collecting and analysing data (Ministry of Education, 2003b, 2006a). In the future knowledge economy, the ability to use ICT will be very important (Ministry of Education, 2003b, 2006a). In

addition to the value of ICT as a skill attractive to employers, computers in schools are used in many ways to help students learn (Ministry of Education, 2003b, 2006a). Already many students have discovered the power of computers to pursue their own interests and to be creative and imaginative (Ministry of Education, 2003b, 2006a). Many of the complicated computer games, for example, require problem-solving skills (Ministry of Education, 2002, 2003b, 2006a).

Teaching and Learning

From the MOE's perspective, ICT is a learning tool because it engages students and encourages them to be self directed learners (Ministry of Education, 2003b, 2006a). It allows students to locate information quickly from a worldwide range of resources (Ministry of Education, 2003b). Information and Communications Technology promotes the following elements of student-centred learning: *Active learning* – ICT allows students, individually and in small groups, to generate and interpret data and to locate and analyse information (Ministry of Education, 2002, 2003b, 2006a). *Learner-centred learning* – ICT can accommodate different ways that students learn by providing choice and independence (Ministry of Education, 2003b, 2006a). Some students are auditory or visual learners; others will be faster using a keyboard than pencil and paper (Ministry of Education, 2003b, 2006a). ICT can also be used to express ideas through story writing, drawing, calculating and synthesizing music. Educational software allows students to work at different rates (Ministry of Education, 2002, 2003b, 2006a). *Modelling and simulating real-life situations* – using educational software, teachers and students are able to examine some real-life situations in a more dynamic way than they could using a traditional textbook (Ministry of Education, 2003b, 2006a). For example, students can use the Internet to take a virtual tour of the planets (Ministry of Education, 2003b). Soon, using Jordan's digitized textbooks, students will have access to simulations that have been built into the texts (Ministry of Education, 2003b, 2006a). *Resource based learning* – ICT allows students and teachers to access a range of current resources which become another component of the resources available to them (Ministry of Education, 2003b, 2006a). In addition they will be able to supplement regular resources with such tools as CD-ROM Encyclopaedias (Ministry of Education, 2002, 2003b, 2006a). While students engaged in the ICT activities, they will require specialized critical thinking skills (Ministry of Education, 2003b). They will need to evaluate websites to discriminate between appropriate and inappropriate information and

points of view and be able to determine the credibility of sources (Ministry of Education, 2003b, 2006a).

Summary

This section discussed the general framework of the vision of education reform in Jordan, with a description of quality teaching from the MOE's perspective. The description of quality teaching has been explored within the 'Framework of the Curriculum and Assessment' as a cohesive and comprehensive strategy of the teaching-learning process. The framework consists of six aspects: curriculum based on outcomes, planning and instruction using an outcomes curriculum, assessment and learner outcomes, the teacher and the knowledge economy, student wellbeing and the learning environment, and information and communications technologies.

The NSW Quality Teaching Model

Introduction

The development of the NSWQT Model was discussed in chapter three. In its final form, the NSWQT Model consisted of three dimensions comprising eighteen elements. Most directly, the model was developed to be used as a framework for teachers to assess and evaluate in a collegial manner their professional practices and needs and to feed this into professional development for school improvement in NSW public schools. The model describes quality teaching pointedly as pedagogical practices that consist observably of eighteen elements clustered around three main dimensions. These broad dimensions were termed **intellectual quality**, **quality learning environment**, and **significance**.

Table 5.1: *The Dimensions and Elements of the NSWQT Model*

	Intellectual Quality	Quality Learning Environment	Significance
Elements	<i>Deep knowledge</i>	<i>Explicit quality criteria</i>	<i>Background knowledge</i>
	<i>Deep understanding</i>	<i>Engagement</i>	<i>Cultural knowledge</i>
	<i>Problematic knowledge</i>	<i>High expectation</i>	<i>Knowledge integration</i>
	<i>Higher-order thinking</i>	<i>Social support</i>	<i>Inclusivity</i>
	<i>Metalanguage</i>	<i>Students' self-regulation</i>	<i>Connectedness</i>
	<i>Substantive communication</i>	<i>Student direction</i>	<i>Narrative</i>

(NSW Department of Education and Training, 2003c, p.9)

These dimensions and their elements, as found in the NSWQT Model, Table 5.1, will be described in detail the next section.

Intellectual Quality

This dimension is based on the assumption that the academic outcomes of the teaching-learning process correlate strongly with observable pedagogical practices. This correlation considers that quality intellectual work arises from a form of interaction between students and teachers. In other words, quality teaching in this estimation is teaching that adopts intellectual work practices to build an understanding of issues beyond the immediate context. According to the NSWQT Model, this type of pedagogy should focus on key concepts, ideas, and skills for productive construction of knowledge and should keep students operating at a high rate of intellectual function (NSW Department of Education and Training, 2003b, 2003c). In the following section, this dimension's six elements will be explained.

Deep Knowledge

Deep knowledge, according to the model, means that the teacher should give their students the opportunity to understand the central concepts of a particular subject or topic and link these concepts coherently with each other (Killen, 2005; NSW Department of Education and Training, 2003a, 2003b, 2003c; University of Queensland, 2001). Students should have a clear and explicit mental map of these key concepts and ideas and be able to accurately articulate the links between these concepts and ideas. Furthermore, the significance of these relationships should be taught clearly and explicitly in order to make the knowledge useful and significant, not only within the subject but also for knowledge related to the whole discipline or the subject area (Killen, 2005; NSW Department of Education and Training, 2003a, 2003b, 2003c).

Deep Understanding

This element is predicated on an awareness that our ability to understand is more complex than it seems. Deep understanding means that students in the classroom demonstrate a degree of understanding that allows them to have a holistic or comprehensive picture of the concepts they are learning. As stated in the NSWQT Model, deep understanding not only means acquiring knowledge, but having a complex understanding of a collection of ideas or concepts associated with a specific subject (Killen, 2005; NSW Department of

Education, 2003; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). Deep understanding is observable when students in the classroom are able to demonstrate an understanding of key concepts that leads them to discover relationships between those concepts (Killen, 2005; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001).

Students who have deep understanding are able to solve problems, and explain and draw inferences and conclusions about the topic under consideration. Deep understanding allows students to demonstrate and/or control an argument based on specific concepts or ideas (Killen, 2005; NSW Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). Teachers should teach these skills explicitly and focus their instruction and consequent student responses on this type of understanding, not simply on memorising or absorbing a fixed body of knowledge (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). This method of teaching can be observed in the classroom when a teacher uses examples together with explanations, allows students the opportunity to reflect on what they have learnt, and allows students to test their understanding by receiving explicit feedback from the teacher (Killen, 2005; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001).

Problematic Knowledge

According to the NSWQT Model, problematic knowledge is taught and presented in the form of open questions and/or problems needing solutions (Newmann & Associates, 1996). The teacher should present the knowledge in an open way so students can find the forms of contestation surrounding the bodies of knowledge and acknowledge the existence of alternatives (Killen, 2005; Newmann et al., 1996; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). This includes recognising that our social lives and culture influence our knowledge and, therefore, knowledge should not be treated as undifferentiated 'information'. If knowledge is acknowledged as always being constructed under the influence of social, cultural and even political deliberations, then that knowledge will be open to potential criticism, unlike the 'received wisdom' found in a 'body of truths' to be simply absorbed by students. Teachers should teach students that any knowledge is associated with a body of evidence that has developed within a social, political and cultural context (Killen, 2005; NSW Department of Education, 2003; NSW

Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). Therefore, such knowledge should always be open to question and criticism in order to exhaust all potential alternatives for problem solving.

Higher-Order Thinking

As outlined in the NSWQT Model, higher-order thinking means that students are involved in learning that stimulates various thinking processes (Killen, 2005; NSW Department of Education and Training, 2003c; University of Queensland, 2001). This can be achieved by manipulating information and ideas about specific topics so students can transform meanings and implications. This process allows students to explain, synthesise, generalise, hypothesise and draw conclusions or construct an interpretation based on specified information. Such manipulation can strengthen students' ability to create and test the logic of new ideas and/or concepts and/or solutions to specific phenomena or dilemmas (Killen, 2005; NSW Department of Education and Training, 2003c; University of Queensland, 2001). The teacher's role in this case is to structure learning tasks so that these tasks encourage and stimulate students' transformational thinking and to provoke students to shift their thinking to a 'higher' or more complex and subtle level, rather than following routine procedures and simply repeating pre-specified knowledge (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). Activating this element means teachers challenging students to engage in tasks that require extended explanation, complex and subtle classification and analysis, and the creation and evaluation of new specific knowledge (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c).

Metalinguage

The use of a metalanguage is the use of an overarching terminology to describe the language used in interactions between teachers and students. According to the model, teachers should use the correct language when presenting specific ideas or information to acknowledge their understanding that certain language (terms and forms) is appropriate for certain areas of study and in certain situations (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). Teachers and students should talk about the use in particular circumstances of specific words, phrases, genres, images and symbols (Killen, 2005; NSW

Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Furthermore, the teacher should explain why they use certain words in the lesson and/or identify key words used in the lesson, define these and display their related uses and meanings (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). In summary, using a metalanguage in classrooms means addressing why sentences work or do not work (syntax and grammar) and addressing the meanings of words and phrases and the appropriateness of text structures (semantics and genre) (NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003b; University of Queensland, 2001).

Substantive Communication

The NSWQT Model explains that substantive communication is about the quality of the conversation or interaction between teachers and students. Quality teaching shifts these interactions from being teacher-centred to being student-centred (Newmann & Associates, 1996; Newmann et al., 1996; NSW Department of Education, 2003). The role of the teacher becomes to encourage a sustainable, reciprocal and reasonably egalitarian interaction between teacher and students and amongst students (Killen, 2005; NSW Department of Education and Training, 2003a, 2003b, 2003c; University of Queensland, 2001). Such communication can use verbal, written or symbolic elements to promote a coherent and shared understanding of ideas and information. According to the model, students should be able to question, probe, debate, compare, contrast, challenge and hypothesise, and not simply repeat 'facts' (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). This type of communicative practice can help students develop and share their understandings of specific ideas, concepts or topics (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a). It is about moving toward having students being responsible for their own and even others' learning.

Quality Learning Environment

The next dimension in the NSWQT Model is the 'quality learning environment'. It also contains six elements. A quality learning environment is one where successful pedagogical practice takes place in a suitable environment. It is not just one that is physically relaxed or

dynamic, depending on the occasion, but one that is also psychologically, socially and emotionally suitable. It conducive to complex and subtle manipulations of information and for producing the high quality of interactions called for by the dimension of intellectual quality. This dimension declares that its six elements need to work in concert to create a sustainable learning environment. These elements are elaborated below.

Explicit Quality Criteria

Students always need to know the significance of their work and by what criteria their work will be judged (NSW Department of Education, 2003; NSW Department of Education and Training, 2003b). Students also need to understand the process by which the teacher will judge the quality of their work to achieve required outcomes (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Explicit quality criteria are used as a reference point for the teacher and students' learning and for checking progress. According to the model, the criteria should be clear, specific and be explained to students (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). This gives students the opportunity to assess and review the quality of their work to reflect a deep understanding of the skills they have learnt. These criteria can be statements about the conditions required to complete a specific task at a high level of quality (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c).

Engagement

Engagement, at its simplest level, means students staying on-task at all times. More broadly, it means observable evidence of enthusiastic and interested students who take their work seriously, who show initiative in raising questions, are involved in group work, who help others, and who actively seek help from their teachers (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). The research indicates the spill over effect; students who demonstrate a high level of engagement also link ideas and concepts to demonstrate deep understanding and move cautiously towards accepting conclusions (Killen, 2005; NSW Department of Education and Training, 2003c; University of Queensland, 2001). The teacher's role is to engage students by reducing obstacles to or difficulties for engagement. A key task for achieving this is the teacher giving constant

feedback on the levels and types of engagement exhibited and expected. Furthermore, and as a more challenging task for the quality teacher, they should try to connect the learning tasks with students' interests, while simultaneously making the tasks meaningful and productive in terms of achieving specific outcomes (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a).

High Expectations

The NSWQT Model makes it clear that without teachers having high expectations of their students regardless of individual differences, then little else the model proposes can be activated. However, the model also acknowledges that no matter what a teacher may do to activate and promote quality teaching in their classroom, not all students will achieve the same level or quality or even quantity of work (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). According to the model, the quality teacher is supposed to set challenging tasks for their students to bring out their strengths, abilities and interests (NSW Department of Education, 2003; NSW Department of Education and Training, 2003c). The quality teacher encourages students to take risks in their learning (NSW Department of Education and Training, 2003c). The quality teacher challenges students to master their work whether this mastery is displayed behaviourally, intellectually or through performance-based measures (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). The quality teacher believes in and trusts their students' capacity to learn and to achieve a high level of quality. Consequently, a quality teacher should be able to move flexibly from strategy to strategy to guide their students from expectation to expectation (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003b).

Social Support

The NSWQT Model asks the quality teacher to create a classroom atmosphere of mutual respect amongst all the participants in the teaching-learning process. The teacher should respect all efforts made by the students (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). The aim is to encourage and value all students so that they will try to do their best. Social interaction within the classroom should be a warm, respectful of

varying values and beliefs and backgrounds, and support appropriate behaviours and comments from all students (Killen, 2005; NSW Department of Education and Training, 2003a, 2003b, 2003c; University of Queensland, 2001). Such an atmosphere motivates students to take initiatives and maximize their efforts in achieving a high quality of learning (NSW Department of Education and Training, 2003a). Such social support can be established especially well, according to the model, by creating an atmosphere of team work where all students contribute, collaborate and share their attempts at learning (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). The teacher's main role in observably establishing this element is to focus on appropriate behaviours and celebrate successes frequently rather than making negative personal comments (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a).

Students' Self-Regulation

Self-regulation means that students should be able to control, manage, regulate and direct their own behaviour or their own efforts to learn (Newmann & Associates, 1996; Killen, 2005; Newmann et al., 1996; NSW Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). According to the model, quality teaching occurs in environments where a maximum amount of time is spent on learning rather than time wasted on micro-managing, that is, surveilling, regulating and correcting, students' behaviour (Killen, 2005; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). This can be achieved by allowing students opportunities to set their own learning goals, take initiatives, and regulate their own learning and behaviour (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Teachers are supposed to guide and facilitate their students in demonstrating personal responsibility, independence and initiative in the learning situation (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a; University of Queensland, 2001).

Student Direction

According to the NSWQT Model, quality teaching occurs when students feel that they are given sufficient and clear choices, time, pace and criteria with regards to initiating and performing their work (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003b, 2003c; University of Queensland, 2001). Suitable pacing gives students the opportunity to step back and re-think the

direction and achievements of their own work. Entitling students to select how they learn, to identify learning activities, deciding how much time they consume, and by which criteria their work will be assessed, enables teachers to appear to be flexible and providing multiple choices for students to enter and exit their learning activities (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Furthermore, quality teachers give students multiple methods for demonstrating their effort; and achievement of outcomes. These pedagogical practices should give students self-confidence and shift the pedagogical operation from a teacher-centred one to a student-centred one (Killen, 2005; NSW Department of Education and Training, 2003a, 2003c). However, this does not mean moving towards an 'ideal' situation where the teacher can be ignored or discounted by students. It is more about developing a situation where the teacher guides students towards taking the initiative in the classroom in terms of their own learning, yet not leaving students to do whatever they like or avoiding whatever they do not like.

Significance

The third dimension of the NSWQT Model is termed significance or, alternatively, relevance. According to the model, this dimension overall means that quality teachers connect classroom learning with the world outside; that they build on their students' background knowledge; and that they connect ideas or concepts across academic disciplines (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003b, 2003c; University of Queensland, 2001). If students do not know why and how their learning matters or reflects important aspects of theirs and others' lives, then they will come to the conclusion that there is little point to their school-based learning (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). The following six elements break down and explain this dimension in more detail.

Background Knowledge

The first element demands that background knowledge be taken into consideration when the teachers interact with their students. This means that students who enter the classroom are expecting to learn new things, but based on the things they know already (Newmann & Associates, 1996; Newmann et al., 1996). Teachers are to make connections between the new and the known (Killen, 2005; NSW Department of Education, 2003; NSW

Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). This connection provides the building blocks or the foundation for enhancing the learning process. Students' background knowledge may consist of prior formal learning, personal experiences, family backgrounds, community cultures, popular cultures and understandings of the mass media (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Teachers can highlight these aspects of their students' prior knowledge as expressed through channels such as discussion of reciprocal ideas and concepts. Insights into students' beliefs, values and ways of thinking can help teachers plan and implement their lessons in appropriate ways (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c).

Cultural Knowledge

The second element of significance becomes apparent when teachers consider, show understanding of, and value students' traditions, beliefs, skills, knowledge and practices (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). Teachers should be aware of and sensitive to the diversity of their classroom with regard to ethnicity, gender, religion, age, sexuality, language, disability and socioeconomic backgrounds (Killen, 2005; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). The quality teacher constructs from the variety of cultural knowledge in their classroom productive factors for enhancing students' learning by using the different cultural backgrounds to create channels and points of interest between themselves and their students and between the students (Killen, 2005; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). According to the model, quality teaching is hindered when the teacher deals with social and cultural backgrounds superficially or dismissively (Killen, 2005; NSW Department of Education and Training, 2003a, 2003c).

Knowledge Integration

The third element is knowledge integration. This element means that teachers and students connect different topics, concepts and ideas across different topics or subject areas (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). From the model's perspective, a quality teacher is able to make their lessons more comprehensive by involving different sorts of

knowledge from different areas to enhance the in-school relevance of the students' learning and enhance its relevance to the students' lives beyond the classroom (Killen, 2005; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). Knowledge integration is also about breaking the boundaries between subjects and collecting pieces of information from different subject areas that can help to reinforce students' specific skills (Killen, 2005; NSW Department of Education and Training, 2003b, 2003c; University of Queensland, 2001). The teacher's role is to help students look for meaningful connections between the subjects they are studying and help them to organise their knowledge by discovering connections between and patterns within and across the curriculum (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Another role for teachers is to give students opportunities to participate in wide-ranging investigations and discussions of a wide variety of topics, and then recapping to allow students to estimate the degree of their knowledge integration (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Ultimately, this should enhance students' abilities in solving problems and scaffolding their understanding of specific concepts or ideas (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c).

Inclusivity

The fourth element of significance requires teachers to recognise and value students from different social groups (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). According to the model, quality teachers avoid discriminating against excluding or devaluing their students (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). Such teachers encourage their students to ask and answer questions freely, as well as to participate in classroom activities regardless of their social status (Killen, 2005; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Teachers can do that by applying different methods or strategies, such as group work, reinforcing their students' feeling of self-worth individually and collectively, using the think-pair-share process, rotating roles (leader, recorder, and speaker), and using cooperative learning

strategies (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c).

Connectedness

In any education system, the real dilemma is to construct knowledge that deals with real-life issues/problems and to try to find real-life solutions to them (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003b, 2003c; University of Queensland, 2001). Quality teaching, according to the NSWQT Model, is teaching that allows students to raise issues in the classroom from outside the classroom, and to try to find workable solutions and/or answers (Killen, 2005; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Teachers are supposed to address aspects that are valued by students and have meaning for them beyond the teaching context (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). Teachers should keep connecting at each step of their teaching process what they teach with the real world. Students come to the classroom with many expectations and aims related to some aspects of their life and seek explanations and interpretations (Killen, 2005; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Hence, the quality teacher should meet their expectations by providing examples to students of how learning can be applied or implemented in their real life (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003c).

Narrative

The last element of significance is narrative. Narrative, according to the NSWQT Model, means using story telling in the teaching and learning process (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003b, 2003c; University of Queensland, 2001). Story telling often establishes a better relationship between teacher and students when those students are drawn from some special needs groups: they feel happy, become alert and pay more attention to specific points, because it can remind them and connect them to special events or circumstances in their own lives, consequently making learning easier (Killen, 2005; NSW Department of Education and Training, 2003c; University of Queensland, 2001). Stories can take the form of personal anecdotes, biographies, historical accounts, case studies, literary and cultural texts, as well as role play and dramatic performance (Killen, 2005; NSW Department of

Education and Training, 2003a, 2003c; University of Queensland, 2001). Stories can be presented in numerous ways, including written, spoken, read, viewed or listened (Killen, 2005; NSW Department of Education and Training, 2003a, 2003c; University of Queensland, 2001). The purpose of stories is to bring alive the substance of the lesson. Stories can be narrated by teachers and/or students; teachers can illustrate concepts through stories; and students can demonstrate their understanding by structuring their experience and acquired knowledge as storytelling (Killen, 2005; NSW Department of Education, 2003; NSW Department of Education and Training, 2003a, 2003b, 2003c).

Summary

The NSWQT Model was adopted in part by the NSW Department of Education and Training because of its strong research base and, apparently, it is a reliable framework for meeting the Department's estimate of contemporary teaching and learning demands. The model describes, reasonably comprehensively, quality teaching in the form of a variety of observable strategies arranged within simple categories called elements. These elements are grouped simply under three main dimensions; intellectual quality, quality learning environment, and significance. Intellectual quality consists of six elements: deep knowledge, deep understanding, problematic knowledge, higher-order thinking, metalanguage, and substantive communication. The dimension of quality learning environment also consists of six elements: explicit quality criteria, engagement, high expectations, social support, students' self-regulation, and student direction. The dimension of significance consists of six elements: background knowledge, cultural knowledge, knowledge integration, inclusivity, connectedness, and narrative.

Comparison and Contrast

The two frameworks, the NSWQT Model and the Jordanian Education Ministry's framework, attempt to introduce best practice into schools. The major differences between the two frameworks are the contexts within which they are expected to operate and the histories from which they were created. On the one hand, the Jordanian framework was developed at a national level to be consistent and generic and to meet national demands and desires for education reform. The reformed education system is intended ultimately to contribute to economic dynamism, social stability during social change and political development. On the other hand, the NSWQT Model was developed at a sub-national (State) level accompanied by less grandiose claims for its contribution to national or State

development and ostensibly aimed more at measuring and activating the professional development needs of teachers. The NSWQT Model would appear to be the result of the ‘fine-tuning’ of a developed education system with a well-trained and mature teaching service, while the Jordanian framework has wider and greater needs to meet in developing the infrastructure and the training needed for, and base-line quality of, their teaching service.

The framework’s demands on teachers and consequently students, as reflected in the differing degrees of flexibility and experimentation encouraged by each framework, would necessarily be different in each context. The NSWQT Model focuses in a more intimate and fine-grained way on pedagogical practices and retains some of the hallmarks of progressivism, such as calls for student-centred learning, self-assessment and self-pacing, concerns about self-worth and about the human quality of teacher-student relationships, whereas the Jordanian framework recommends a comprehensive framework for curriculum and assessment to guide teachers’ activities, while leaving pedagogical practice largely assumed to be standardised and, one would expect, less progressivist in approach. However, while the Jordanian framework tries to address a desired form for teaching and learning, it is a far less precise framework. A possible reason for this is that the Ministry was required, almost immediately on the basis of international ‘persuasion’ and advice; to develop a new framework to meet what was proposed as an internationally comparable conception of a ‘modern’ curriculum and quality teaching. Such rapid transition without prior preparation created confusion, hesitation and the conditions for a plethora of competing demands to be advanced by politicians, advisers, administrators and teachers.

The pressure for rapid educational change for national development was placed on Jordan, in part, by its acceptance in 2000 of UNESCO’s *Dakar Framework* that had been adopted by the World Education Forum in Senegal, Africa (UNESCO, 2000). This framework reaffirmed the view of education outlined by the World Declaration on Education For All developed in Jomtien, Thailand, in 1990. The *Dakar Framework* built on the results of the World Conference on Education in 2000 that assessed what was needed to provide basic education around the world and to evaluate progress towards the Jomtien goals (Tamatea, 2005; UNESCO, 2000). The participating countries, including Jordan, pledged to uphold and work towards the framework’s recommendations, goals and targets. Of course, substantial international aid was attached to rapid progression towards implementing these goals. Of the six goals, one was about ‘improving all aspects of the quality of education

and ensuring excellence of all so that recognized and measurable learning outcomes are achieved by all, especially in literacy, numeracy and essential life skills' (UNESCO, 2000, p.8).

The Jordanian Government committed itself to meeting this and the other five goals. The concern was not only to establish an agreed blueprint for achieving these goals, but also to make sure these goals were implemented as conceived by the *Dakar Framework*. The main obstacle that Jordan and other countries encountered was the lack of existing groundwork and preparation for fully comprehending and activating these goals. It is understandable that participating countries committed themselves perhaps prematurely to such obligations due to loan conditionality required by aid donors and by the World Bank. A dilemma also lay in the variation and gap between these countries in terms of their levels of preparation, fiscal and economic resources, political stability and commitment to the process. Jordanian education officials rushed to put the new framework of quality education in place in an uncertain atmosphere with little preparation work at a grass-roots' level. In other words, the Jordanian Ministry was advancing but leaving teachers, students, and local administrators behind and at the same time ignoring the social context of the already-existing education and social system. Hence, the Jordanian framework was born and implemented in controversial circumstances, which could impact upon its sustainability.

This is in complete contrast with the NSW system, largely unchanged in its basic operation since the Wyndham reforms of the early 1960s (Barcan, 1988). As well, in this remarkably stable context, the NSWQT Model was developed from predecessors tested over many years and across different countries and Australian States. The NSWQT Model was imposed by the educational authorities, but in a staged manner, accompanied by ongoing research, and in a spirit of compromise with a conception of teacher demands for professional development. Therefore, the NSWQT Model was generated and applied in a more endogenous and organic manner or at least it was to be perceived as such by the NSW education authorities, than the Jordanian framework, which was constructed under the vicissitudes of exogenous pressure and applied in an unapologetically top-down manner. In the following section, the similarities and differences between the two frameworks' descriptions of quality teaching will be teased out, since both still see this as a crucial part of their operation. The comparison and contrast will compare two key indicators: the frameworks' identification of the teacher's role in implementing quality teaching and the student's role in responding to quality teaching.

The Teacher's Role

There are similarities between the Jordanian and the NSWQT Model's description of the teacher's role in activating quality teaching. These similarities revolve around the idea that the teacher's role in the teaching-learning process should transit from being teacher-centred to student-centred. This means that the teacher's role should change from the traditional one of didacticism, personal dominance of the classroom, 'spoon feeding' or transmission-style teaching, being the only 'legitimate' source of information, having a strong reliance on verbal direction and instruction, and being the only classroom manager and only source of authority, to undertaking the role of guide and facilitator of student learning, while observing, debating, seeking innovation, acting as critical friend to students and staff, modelling a variety of modes of teaching, and constantly consulting students. In the two new frameworks, the teacher is supposed to provide tasks that foster critical thinking and problem solving. Furthermore, the quality teacher creates a classroom culture of learning with high expectations of all students, while taking into consideration students' prior learning and knowledge. The quality teacher, according to the two new frameworks, would arrange assessment criteria on this basis when both when planning and applying teaching practices. In terms of instructional strategies, 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. Moreover, the quality teacher, according to the two frameworks, encourages students to be active learners, while the teacher asks questions and provides 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 to be the most effective and efficient ways for activating quality teaching processes and leading towards students practising self- and peer-assessment. The teacher, according to the two frameworks, is to use appropriate language when they communicate with their students. This criterion takes different forms in either framework. For example, in the NSWQT Model it is understood as metalanguage – language ranging over and above immediate discourse, while the Jordanian framework asks teachers to use language that both relates to real life and demonstrates the teacher's mastery of appropriate language. Finally, the two frameworks emphasise that teachers need to recognise that students need social support and both enumerate the techniques applicable to this endeavour.

According to the two frameworks the teacher should prepare teaching and learning environments in which teacher and students interact confidently. For example, both frameworks ask teachers to be facilitator and guide for students learning. Both frameworks requested teachers to maximise students self direction and regulation rather than exercising power over them and take away their space and choice in teaching and learning activities.

A major difference between the two frameworks in describing teachers' actions is that the Jordanian framework is more prescriptive and more detailed in presenting what teachers should do from the planning stage up to the assessment stage, and makes explicit what criteria teachers should use and how they should use them. It can be surmised that the Jordanian framework seeks to describe and direct explicitly the desired actions expected by the central authority from teachers, whereas the NSWQT Model is less explicit in directing teachers' activity, especially when we consider the model's first dimension 'intellectual quality'. While it is true that the NSWQT Model is elaborated in a sophisticated way, its lack of explicitness raises the question of exactly towards which teachers in which contexts is it directed? It is meant to help teachers develop professionally, but is this reducible to an exclusive focus on classroom teaching as in the NSWQT Model? If so, then perhaps the model should be more explicit and more applicable to immediate classroom practices. Another difference is that the NSWQT Model gives little direction to the teacher for planning their lessons. Planning is generally regarded to be vital for effective teaching. The Jordanian framework recognises this by giving considerable detail for aiding teachers in planning their curriculum, whether on a daily or semester-long basis. In terms of assessment, the Jordanian framework gives teachers assessment options and alternatives, while the NSWQT Model is both more nebulous in prescribing assessment types but also seems to limit assessment types to those probably more appropriate for secondary schools rather than primary schools.

In terms of cultural knowledge or social background, the Jordanian framework is insufficiently and inadequately clear as to the need for teachers to acknowledge the existence and impact on learning of cultural knowledge or social background. It provides no guidance as to the cultural or social knowledge that teachers should have nor how they should act or react towards manifestations of different cultures and social backgrounds revealed in the classroom. On the contrary, the NSWQT Model explains this requirement of teachers explicitly and gives teachers some idea of the ways in which they should deal with social diversity in their classrooms. Similarly, the NSWQT Model strongly suggests

using narrative as a teaching strategy, while the Jordanian framework does not. Another difference is that the Jordanian framework focuses on classroom management as the main base-line criteria for teacher quality, whereas the NSWQT Model is far less explicit and prescriptive about the need for and ways of implementing classroom management, especially in regards to organising the physical environment and the classroom's 'look', which the Jordanian framework strongly suggests is the main duty of the teacher.

The NSWQT Model is at pains to encourage the practicalities of producing deep knowledge in the classroom and the form it should take in the instruction process. The Jordanian framework does not address this explicitly. The NSWQT Model gives guidance for constructing problematic knowledge and avoiding presenting knowledge as a fixed body of 'truths'. The Jordanian framework makes no explicit attempt to do this. In general, the two frameworks are relatively similar in terms of what they propose as the main characteristics of the quality teacher. They both attempt to explain the role of the quality teacher in terms of achieving 'high quality' work from students.

The Student's Role

The two frameworks have similarities and differences when describing the student's role in the classroom. According to both the Jordanian framework and the NSWQT Model, the student 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 the path of increasing their knowledge, and who grows through increased understanding. This is most unlike the traditional 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 assessment effort was for students to recall and regurgitate rote-learned information in the required way at the required time. The more recent expectation of the student's role lodged within both quality teaching models can be summarised as taking six forms, which, paradoxically for some students or in some cultures, may be experienced as more oppressive and/or more demanding than the traditional rote-regurgitate model. The assumed role is: first, engagement by paying attention and listening carefully to the teacher and following carefully the requirements of the learning activities. Second, showing understanding by asking and answering questions. Third, contributing and participating in the lesson by adding information, ideas, opinions and comments. Fourth, demonstrating the skills and attributes of problem solving; and high-order thinking 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. Fifth, willingly co-operating with other students in class to learn from them and to encourage those other students to work as a team, while also being willing to work independently and to take full responsibility for personal activities and products. Finally, the 'new model' student regulates and directs themselves with complete commitment to the completion of all their work with only modest guidance from, but while under continual observation and assessment by, the quality teacher. All these assumptions about the student's role are displayed in the two frameworks of quality teaching.

One contrast between the Jordanian and the NSWQT Model's description of the student's role is that the Jordanian framework claims that the student should acquire ICT and other technological skills, whereas the NSWQT Model does not mention technology explicitly. Furthermore, the Jordanian framework describes one part of the student's role to be acquiring and valuing foreign languages, while the NSWQT Model gives no recognition to the importance of knowing or valuing other languages. On the other hand, the NSWQT Model highlights two elements that it considers to be the crucial orientating core of the quality teaching and learning process: deep knowledge and deep understanding, while the Jordanian framework describes these superficially and does not position them as essential elements in the teaching-learning process.

Despite these slight differences, on the whole the two frameworks agree on the nature of the student's role in the quality teaching-learning process. This role can be boiled down into two statements of assumptions and procedures: firstly, students possess prior knowledge and need to come to class ready to build on this knowledge in order to apply it in real-life situations as useful members of a predetermined social order. Secondly, to achieve this then 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 could be debated whether these frameworks in total are particularly liberating for students or for the teachers who will be held accountable for the fulfilment of their assumptions and procedures. Deep comparison and contrast, supported with examples, are made in detail in chapter eight.

Chapter Summary

In this chapter, a presentation of the description of quality teaching from two perspectives (the MOE and the NSWQT Model) has been made. The two descriptions organised the aspects of quality teaching and learning around particularly elements. Summary of each perspective has been presented. Comparison and contrast has been made to highlight the similarities and differences between the two perspectives. Moving from the descriptions of quality teaching and learning to the practices, chapter six presents the second chapter of the results which is the results of the class room observations.