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## CHAPTER: 6

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### **Bridging the gap between intended and taught curriculum: Insights from the implementation of Curriculum 2004 in Turkey**

#### ABSTRACT<sup>4</sup>

This chapter seeks to examine the implementation of the new primary school curriculum in Turkey. The implementation process is analysed using an analytical framework developed by Rogan and Grayson (2003) focusing on three major constructs; support from outside agencies, capacity to support innovation, and profile of implementation. Using a case study approach, the study focuses on teachers' experiences and perspectives. The chapter draws on the data collected in eight public schools that piloted the new curriculum in Ankara. Data collection methods included interviews with school management (14) and teachers (50), and classroom observations (59) at primary one and two. The chapter reveals that teachers mediated and in some instances rejected curriculum change, creating a mosaic of different implementation profiles at school and classroom level. The chapter underscores the divergences between policy and practice, and from the perspectives of teachers, attempts to explain the causes of such differences. The findings underscore the importance of paying due attention to the implementation stage, providing sufficient support to schools, and adequately considering school capacity to support innovation. The chapter also points out the critical role of teachers and the significance of involving them in the curriculum development process.

#### **1. Introduction**

The tension between what is planned for and what is practised has been one of the most enduring tensions within curriculum studies since there has always been an inevitable gap between proposal and practice, aspiration and action (Westbury, 2008). Different perspectives on curriculum implementation seem to agree that the written curriculum is implemented through a process that involves application and distortion of what is formally proposed (Lopes & DeMacedo, 2009) Hence, there can be significant gaps between intended and taught curriculum, and between what is taught and

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what is learned (Cuban, 1992). These differences may be conscious or unconscious; teachers may deliberately implement the curriculum in ways different than suggested by policymakers, or classroom realities may not be conducive to realise the intentions and expectations of curriculum designers (Kelly, 2009).

Although a certain degree of divergence between intention and reality can be inevitable, several country examples indicate that the gap has often been disappointingly large. For instance, in developing countries, numerous educational reform initiatives were rarely effectively implemented and have often failed to achieve their objectives (O'Sullivan, 2002; Ward et al., 2003), leading to considerable waste of time, effort and resources (Rogan & Grayson, 2003). An important explanation for this failure is the tendency of policymakers to pay more attention to policy formulation at the expense of planning for the implementation stage (Haddad, 1995). In other words, the attention and energies of policymakers are too often focused on the 'what' of desired educational change whilst neglecting the 'how' (Rogan, 2007). In the past decade, there has been a growing acknowledgement that policymakers need to adequately plan for the implementation stage, and understand all stages of the reform process as interdependent, rather than as distinct from each other (O'Sullivan, 2002).

Turkey revised its curriculum for primary education in 2004 to address some of the pervasive problems identified in the education system and to respond to the new trends and demands that had emerged in the global environment. Additionally, as a candidate country for EU membership, adopting the EU standards and educational perspective has been an important political motive and reference base (MONE, 2005b). Reflecting similar reform efforts in countries in Asia and sub-Saharan Africa, the revised curriculum for primary education focuses on development of select competencies and skills, and adopts student-centred pedagogy, and continuous assessment (MONE, 2005a). The new curriculum was piloted in the 2004/2005 academic year in 120 primary schools in nine provinces across Turkey, and in the following year, nationwide implementation started at the first five grades at the same time (Bikmaz, 2006).

The authorities introduced the new curriculum as a 'revolutionary move in education' (İnal, 2008), and the initial years of curriculum implementation witnessed widespread discussions in the media (Güven & İscan, 2006). Based on broader research that explored curriculum implementation and pedagogical reforms in Turkey, this chapter seeks to analyse how the Curriculum 2004 was implemented at primary one and two

in selected schools that piloted the new curriculum in Ankara. By using an analytical framework developed by Rogan and Grayson (2003), the chapter examines to what extent and how teachers have been implementing Curriculum 2004. It highlights the apparent discrepancy between policy and practice, and explains from the perspective of teachers the underlying causes of such divergences.

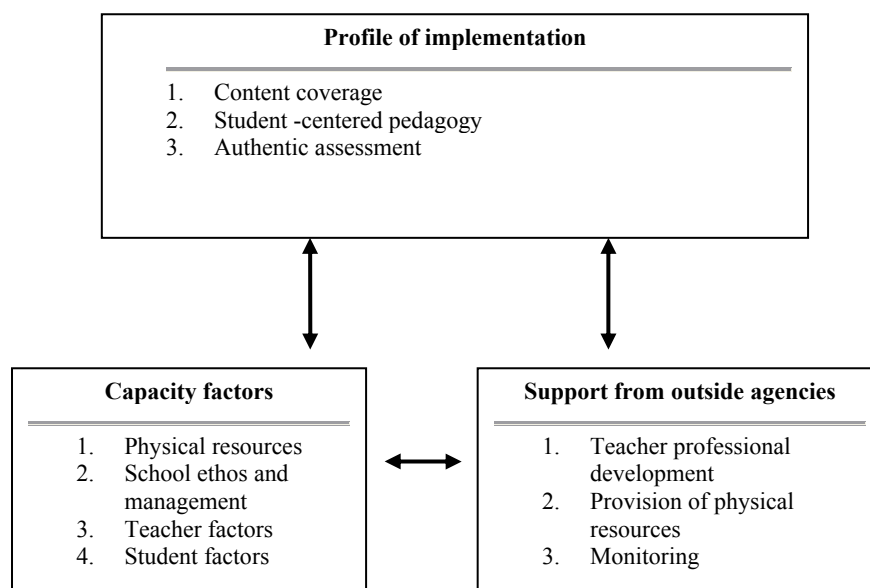
## **2. Theoretical framework**

Implementation of Curriculum 2004 will be analysed in this chapter by using an analytical framework developed by Rogan and Grayson (2003). While drawing on the literature of school development, educational change and science education literature, the authors try to overcome some of the weaknesses of the earlier frameworks developed by Beeby (1966), and Verspoor and Wu (1990). The frameworks developed by these academics categorised schools and education systems into four developmental stages, and assumed that schools progressed from lower to higher stages. In Beeby's framework, these were Dame School, Formalism, Transition and Meaning, while in the model suggested by Verspoor and Wu, the model included Unskilled, Mechanical, Routine and Professional schools. Beeby's model underestimated the complexity of an education system by focusing only on teachers and neglecting other aspects of school context. Verspoor and Wu (1990) had a broader focus as they incorporated a number of other factors related to teachers, curriculum and school. However, their model also failed to include students. Since both models implied a linear view of curriculum change, from one stage to the next higher stage, they tended to obscure the complex and idiosyncratic nature of the process (Rogan & Grayson, 2003; Rogan, 2007).

Rogan and Grayson (2003) base their theory of curriculum implementation on three major constructs: support from outside agencies, capacity to support innovation and profile of implementation (see figure 4). The 'support from outside agencies' describes the kinds of actions undertaken by outside organisations, such as departments of education, aid agencies, or teacher unions, to influence practices, either by support or sanction. In order to facilitate innovation, outside agencies might provide material or non-material support. Material support may include provision of physical resources such as construction of additional classrooms, provision of books and learning materials or direct support to students (e.g. school-lunch programmes). Non-material support is often provided in the form of teacher

professional development, which is one of the most visible and recognisable ways through which outside agencies attempt to influence change processes in schools. Teacher professional development can also be promoted through facilitating cooperation and support among teachers (Karsten et al., 2000). In addition to providing material and non-material support, outside agencies also use some monitoring and supervision mechanisms to put pressure on teachers and school management. The ability of outside agencies to apply such pressure is closely linked to their authority and credibility. For instance, Ministry departments can attempt to impose changes by decree, whereas an NGO can only resort to persuasion and inspiration.

Fig. 4. The analytical framework (Adopted from Rogan & Grayson, 2003).



The second construct, ‘capacity to support innovation’, is concerned with school factors that are likely to support or obstruct the implementation of innovative curricular proposals. Four main indicators are identified within this construct: physical resources, school ethos and management, teacher factors, and student factors (Rogan & Grayson, 2003). Physical resources are important since poor conditions and resource scarcity can impose serious limitations on how teachers teach and students learn. The school ethos and the quality of management are also very important: If a school is in disarray and

not functioning well, innovation cannot or will not be implemented. Research has also shown that the leadership role of the principal is crucial in the implementation of education reforms (Fullan, 2007). Moreover, teachers are critical towards reform processes since they do not merely assimilate the institutionalised curriculum texts, but incorporate them into their knowledge, beliefs and pre-existing teaching practices (Fullan, 2008; Lopes & DeMacedo, 2009). Factors, such as their training, subject matter knowledge (Gess-Newsome, 1999), motivation, identity (Vulliamy et al., 1997), skills, beliefs (Levin & Nevo, 2009; Lumpe et al., 2000; Van Driel et al., 2001), and expectations (Buckley, 2010), influence their capacity and willingness to implement change. Likewise, the background of students, and the kind of strengths and constraints they bring to school are important. A range of issues influences student attitudes to learning and their responses to change. These include the home environment (Bradley & Corwyn, 2002), parental commitment to education, health and nutrition (Bloom, 2005), and proficiency level in the language of instruction (Spolsky, 1986). The quality of infrastructure or the characteristics of teachers and students differ from one school to another; hence, there can be significant differences in terms of schools' capacity to implement reforms. Besides, the contribution of these four sub-constructs to the capacity of a school to support innovation is likely to be dynamic and changing over time.

The last construct, 'profile of implementation', is developed in order to assist in understanding, analysing and expressing the extent to which the objectives of the reform programme are put into practice. The profile provides a 'map' of the learning area; therefore, it enables curriculum planners to conceptualise levels of curriculum implementation (Rogan & Aldous, 2005) and to identify strengths and weaknesses in the implementation process. The construct recognizes the fact that there can be multiple ways of putting a curriculum into action. However, it assumes that some broad commonalities of what constitutes 'excellence' or 'good practice' will emerge. In addition, the profile recognizes that curriculum implementation is not an all-or-nothing proposition as there can be different levels at which implementation might be said to occur (Rogan & Grayson, 2003). As opposed to the earlier models, the profile does not entail 'progression' from one level to another, because the higher levels are thought to include the lower ones as well. Therefore, the levels do not prescribe what should be done at any given point in time, but suggests the mastery and use of an increasing array of teaching and learning strategies (Rogan, 2007). By considering the major changes introduced by the revised curriculum in Turkey, three sub-constructs

were developed for this study: content coverage, student-centred pedagogy and authentic assessment.

### **3. Data and informants**

The chapter is informed by fieldwork conducted in Turkey in the spring of 2009. The case study approach (Yin, 2009) was applied in this research as the processes of interpretation and sense-making as well as the context particularities were central. The study uses a multiple case study design to generate more compelling and robust findings, and to strengthen analytical conclusions. Purposeful sampling (Patton, 1990) was used and public schools which piloted the new curriculum were selected as research sites since they were viewed as information-rich cases. Within the province of Ankara, 25 public schools piloted the revised curriculum. Eight of these schools were randomly chosen, each from a different district. The pilot schools were located in middle to low-income neighbourhoods in urban centres. According to teacher accounts, these schools were considered to be among the 'best' schools in their vicinity. The schools were relatively big, as the majority of them enrolled more than 1,000 pupils. Except for three of them, all the schools offered double-shift education. School management, teachers and some key informants working at Ministry departments, education institutions, academics, and members of three teacher unions comprised the sample of this study. Fourteen head teachers and deputy head teachers (13 male and one female) and 50 teachers (41 female and nine male) took part in this research. Teachers' ages ranged between 30 and 64, while the average was 40.

Two forms of data collection were used: interviews and classroom observation. Interviews were conducted with teachers, school management, and with key informants within the field of education. In total, 50 interviews were conducted with teachers; 26 at primary one and 24 at primary two. Teacher interviews were often held in classrooms after classroom observations. During a lesson hour, teacher gave individual tasks to pupils, such as reading, painting or writing assignments. While children were occupied with the activities, interviews were held with teachers throughout the lesson, which lasted 40 minutes. The interviews were semi-structured: a list of general topics was prepared to make interviewing systematic and comprehensive. Yet, multiple other subtopics were probed and explored. During teacher interviews, their views and experiences were sought on a range of issues including curriculum content, pedagogical approach, assessment methods, perceived outcomes, challenges, and responses received

from students and parents. The interview data were recorded in written notes as teachers have shown a preference for this type of data recording. In addition to teachers, 14 interviews were conducted with school management in their offices. The goal of such interviews was to understand how they evaluated the new curriculum and what kind of responses they received from teachers in their schools. Furthermore, interviews were held with a select number of officials in the Ministry, with teacher unions and academics. The majority of these interviews were also recorded in written notes, while some were taped.

In addition, 59 lessons were observed in primary one (31) and two (28). At primary one and two, classroom observations were carried out in three lessons: Turkish (23), Life Knowledge (15), and Mathematics (21). The lessons were observed at different times of the day and during all working days, and between two to five working days were spent at each school. The duration of lesson observation was 40 minutes. Since the schools had high number of pupils, they had a minimum of three streams at lower grades, in some of them there were even 12 streams. In such cases, the classrooms were selected randomly. During observations, I first introduced myself to the children, and answered their questions about my own background and about the research itself. Afterwards, I maintained a passive presence by sitting in the back, and not interacting with the pupils. During observations, I took descriptive notes on a number of items, including classroom organisation, teacher and student activities, student talk, teacher feedback, classroom management, and atmosphere.

The fieldwork data were first organised by methods (interviews and observations), and interviews were further classified as interviews with key actors, school management, and teachers. The texts were read for a general understanding and for delineating emerging themes. The main codes and some of the sub-codes were developed in accordance with the analytical framework used in the study, and some other sub-codes were developed while analysing the texts. Cross-sectional code and retrieve methods were used where a common system of codes was applied with a computer program (ATLAS.ti) across the whole data set and used as a means of searching for and retrieving chunks of labelled data (Spencer, et al. 2003). The main codes included content, pedagogy, assessment, teacher training, monitoring, textbooks, and materials. Then, by using the constant comparison method of Grounded Theory (Glaser & Strauss, 1967), data were analysed, emerging themes were highlighted, and notes were taken on patterns, connections,



similarities or contrastive points. While doing so, tentative interpretations and explanations were developed.

#### **4. Curriculum change in Turkey**

All primary schools in Turkey use a centrally planned curriculum, organised by subjects. Before the recent curriculum change, primary schools were using a curriculum which had been in place since 1968. The content of the textbooks and some other curriculum materials have been modified in the past decades (e.g. in 1983, 1989, 1993, and 1998); however, a comprehensive review and revision of the primary school curriculum was not initiated before 2004 (Onal & Kaya, 2006; Bulbul, 2005). Similar to several of its predecessors, when the AKP came to power in 2002, it highlighted the importance of education in their party programme and made strong claims that they would initiate comprehensive reforms in the education system (İnal, 2009). In the following years, the ruling party labelled several of their revisions and change proposals in the education system as ‘reforms’ and some of them even as ‘revolution’ (İnal, 2008). Revision of the primary education curriculum has been one of the ‘revolutionary reform packages’ announced by the government.

##### *4.1. The rationale for change*

In its various reports and publications, the Ministry explains the rationale of curriculum review by referring to changes in science and technology, national needs, globalisation, and harmonisation with the EU. Accordingly, change was imperative in educational approaches and practices because of the recent developments in science and technology. Such developments have influenced the content and processes of education, rendering the traditional educational approaches obsolete, and giving emphasis to multiple intelligences and constructivism. In contemporary knowledge economies, the future of individuals and societies is dependent on abilities to access, use and produce information. The development of such abilities and their continuous, life-long application requires an education system that helps produce knowledge (MONE, 2009b; MONE, 2005a). The more specific reasons for change highlighted in the official documents included making education more responsive to social and economic needs of the Turkish society, improving quality and equity in education, improving student motivation and achievement levels, and equipping students with select abilities, skills and

competencies that are critical to life and work in the contemporary world (MONE, 2005a). In addition, curriculum review was required because primary and middle schools were combined in 1997, although the curriculum was not modified accordingly. Therefore, the new curriculum also aimed at eliminating content overlap by harmonising the subjects.

The reports also make references to some of the international tests that Turkish students have participated in with disappointing results. For instance, in TIMSS-1999, Turkey was ranked 31 in Mathematics (Olkun & Aydogdu, 2003) and 33 in Science (Bagci-Kilic, 2003), out of 38 participating countries, well behind all European countries. Likewise, in PIRLS-2001, Turkey was ranked 28 out of 35 in reading literacy (PIRLS, 2001), and in PISA-2003, it was ranked 34 out of 41 in Mathematics and reading (OECD, 2004). The modest performance of Turkish students in such international tests has been influential in the education policy debate (Aksit, 2007; Gultekin, 2007). Similar to some other countries in the world (such as France, Germany and Australia), international test results were employed as a point of reference by policymakers to advocate and legitimatise curricular reforms (see Figazzola, 2009).

The need for reforming the education system is also underscored by the highly influential business association Turkish Industrialists' and Businessmen's Association (TÜSİAD) in its various reports and publications since the 1990s. Some of these reports aimed at analysing the problems and structural issues in the education system in general, and some were specific to higher education, vocational education or early-childhood education. Their report, entitled 'Education in Turkey: Proposals for structural adaptation to problems and changes', was released in 1990 and 'generated acrimonious debates over how best to prepare Turkish children for faith, market, and the nation' (Kaplan, 2006, p. 38). The 1990 report and the following publications criticised the education system for being traditional, obsolete, and inflexible, and pointed to the inadequacy of the system for equipping students with skills, competencies and knowledge required in labour markets. The 1990 report particularly criticised the curriculum for emphasizing rote learning and failing to stimulate the development of critical skills and competencies. It suggested that the education system should focus on the development of the following competencies: learning to learn, understanding the economic environment, entrepreneurship, communication, team-work, problem-solving, and foreign languages (TÜSİAD, 1990). As explained below, many of these competencies were indeed emphasized in Curriculum 2004.

Furthermore, harmonisation with EU policies and education standards has been an important motive (MONE, 2005b; Tarman, 2008). Turkey was granted 'candidate' status in 1999, and accession negotiations were opened in 2005. Education, training and youth are considered to be the responsibilities of the member states; however, the Community contributes to the development of education quality in EU countries (Commission of the European Communities, 2006). The Union's 2002 annual progress report considered the principles of the Turkish education system to be generally consistent with those of the EU. However, the report pointed to review of curricula and teaching methods as 'major issues to be addressed to increase the efficiency of the education system' (Commission of the European Communities, 2002, p. 104). The annual progress reports also highlighted the importance of developing a demand-driven education system by improving the relevance of education to labour market demands, particularly at vocational and higher education levels (Commission of the European Communities, 2004). The EU provided financial support for the revision of the curriculum through 'Support to Basic Education Programme'. The programme was initiated in 2002 and phased out in 2007. The aim of the programme was to enhance the quality of formal and non-formal education and to increase access to education in Turkey. The programme had a budget of EUR 100 million, and included a wide range of activities including teacher training, management and organisation, communication and quality of education. The curriculum review and piloting was financed under the component of 'quality of education' (MONE, 2008).

Although TÜSİAD nor the EU were directly involved in the curriculum review process in 2004, their various reports and publications appear to have influenced the curriculum development process as they have consistently pointed to the need for reform, and accommodation of the education system to a market economy. Some of the respondents who participated in this study argued that TÜSİAD's influence was not limited to the review of the primary school curriculum because TÜSİAD's recommendations have often served as reference point in several other recent educational restructuring reforms in Turkey.

TÜSİAD's demands clearly overlapped with the demands of the EU, as well as with the demands of powerful multinational corporations with business interests in Turkey. This was not surprising since they were supporters of a neoliberal market economy and were in favour of accommodation of the education system to the needs of the market. Akkaymak (2010) confirms such arguments by stating that Curriculum 2004

aimed at reorganising education in accordance with market demands and implies an integration of neoliberal discourse into the curriculum. One might argue that the government was responsive to these demands as it was under pressure (like other countries in emerging markets) to attract foreign capital and provide a ready supply of labour (Carnoy & Rhoten, 2002) equipped with competencies and skills demanded by employers – both national and international.

#### *4.2. Curriculum development process*

The new curriculum documents were developed by the Board of Training and Education (Talim ve Terbiye Kurulu Başkanlığı – TTK) which is authorised to determine the organisation of the national educational system, the curricula, textbooks, timetables, budget and some other pedagogical agendas. Its decisions are binding for all schools, including public and private schools, minority schools, and vocational and technical schools (Eurydice, 2009; Kaplan, 2006). The educational programmes for five subjects were revised within the context of curriculum change, and new textbooks and student workbooks were developed. These subjects included Turkish (grade 1-5), Life Knowledge (grade 1-3), Science and Technology (grade 4-5), and Social Studies (grade 4-5). The new curriculum was piloted in 2004/05 academic year in select public schools across the country, in 120 schools in nine provinces, including Ankara (the capital city), Bolu, Diyarbakır, Hatay, İstanbul, İzmir, Kocaeli, Samsun, and Van. The nationwide implementation started in the following academic year, in the fall of 2005, in the first five grades at the same time. A gradual implementation was planned for upper grades, as the educational programmes for grades 6, 7, and 8 were introduced in the subsequent three years.

The curriculum development process is criticised from a variety of perspectives, including the short – only one year – duration of the process, for not considering previous experiences with regard to the development of educational programmes, and for copying education models from abroad without adopting them to the cultural and structural realities of Turkey. Such criticisms were particularly voiced and analytically examined by 13 professors who met in Eskisehir in 2005 to discuss the new educational programmes (Gömleksiz, et al., 2005). Similar criticism was also raised by the respondents of this study. For instance, several teachers and other stakeholders commented that the implementation process was rushed without

adequate preparation, causing scepticism and anxiety among teachers and school management.

Furthermore, some others commented on importing educational ideas from the West. They argued that the development of educational programmes would naturally benefit from comparative studies on the education systems of other countries, but this does not imply that an educational policy or model that appears to work in a foreign country can be imported and implemented as such. Yet, this was precisely what happened during the development of the new educational programmes. One of the respondents argued that in Turkey one couldn't talk about an authentic curriculum development structure, since curriculum was often imported from other countries in the West and implemented with some modifications. The reasons for this were explained as such:

In countries like ours, we look to the West. We consider their practices as 'good' since we tend to believe that they are advanced because of those practices. So, why should one bother with developing new things? We can copy and adopt their policies and practices. Then we can be like them, catch up with them and even surpass them in civilisation level. Many Turkish scientists and educationalists think along these lines. This is an internalised version of cultural imperialism and implies an inferiority complex.

The academics and education experts who studied in higher education institutions in the US and Europe were believed to be more afflicted by such an 'inferiority complex' and 'absolute trust' in Western ways of doing things. They commented that even some common rules and practices in academia reflect such a 'complex', for instance the pressure to publish in English, high credits associated with citation by a foreigner, or employment conditions linked to a doctorate or postdoc accomplished abroad. These accounts remind of Ball's argument that the movement of graduates from Western countries helps to perpetuate cultural and political dependency in some contexts, and leads to devaluation or denial of 'local' solutions to education problems (Ball, 1998). Some of the respondents indeed commented that this is exactly what happens in Turkey.

The development of educational programmes was coordinated by academics from universities in Ankara. Another criticism in this respect was related to the issue of who was invited to participate in the curriculum development process and why. It appears that the invitation letters from the TTK were sent to a select number of academics in a few universities in Ankara. These academics were considered to support the current government

and their policies. Furthermore, the Ministry prides itself in the participatory nature of and broad collaboration of education stakeholders in the curriculum review process, with the business world, NGOs, unions, universities, schools, teachers, students, and parents taking part. However, some respondents argued that there was no real participation in the curriculum development process and that such meetings were primarily window-dressing.

#### *4.3. Curriculum 2004*

The new educational programmes for primary education are based on constructivism, a multiple intelligence approach, student-centred pedagogy, sensitivity to individual learning differences, a thematic approach, and emphasis on the development of competencies. The new curriculum proposed changes in curriculum content and organisation, teaching and learning methods, and student assessment. The main principles that underpin the new educational programmes included the following (MONE, 2009a; MONE, 2009b; MONE, 2009c; MONE, 2009d):

1. The programmes should reflect children's perspectives as they are child-centred instead of being teacher or subject-centred.
2. Instead of memorising information presented to them or trying to learn in a passive manner, students should be actively involved in learning and teaching processes. They should be able to interpret and give meaning to the information that is presented to them, and should be encouraged to construct their own knowledge.
3. The basic knowledge and competencies that are included in the new educational programmes should reflect children's need in their real life. It is not necessary to consider the type of knowledge which changes rapidly and becomes obsolete.
4. The programmes should focus on basic competencies that would help to improve students' quality of life. Instead of depositing knowledge, the programmes should focus on the development of children's personalities and intellectual capacities.
5. The lessons should be organised in a way that they maximise children's enjoyment and satisfaction in learning processes.
6. The themes and topics should be presented in an integrated and thematic way.

In line with these principles, the content load was reduced and a thematic approach was adopted while preparing the new educational programmes. Unlike the previous curriculum which frequently referred to goals, objectives and targeted attitudes, Curriculum 2004 focuses on competencies. One of the main curriculum objectives is the development of eight core competencies in the five newly developed educational programmes (Life Knowledge, Mathematics, Social Studies, Turkish, and Science and Technology). These competencies include critical thinking, creativity, communication, problem solving, research, using information technologies, entrepreneurship, and language skills in Turkish (MONE, 2005a).

In addition, the revised curriculum adopts a student-centred approach. It encourages the use of various teaching and learning methodologies, student activity, hands-on-learning, integration of learning activities in and outside the school, cooperative learning, research, project-based learning, and increased use of learning materials. The curriculum documents recommend that the majority of lesson time should be spent on classroom activities that are often initiated by students. Instead of imparting knowledge, teachers should 'only' guide student activities. Engagement in such activities is believed to improve students' communication skills, creativity, cooperation, problem solving, and entrepreneurship. In such a model, students' and teachers' roles in the classroom are modified drastically. The newly defined roles of students include active participation (both intellectually and physically) in learning processes, taking responsibility for their own learning, talking in classrooms, raising questions, being inquisitive and cooperative, and integrating their knowledge and applying their skills. The teacher's role, on the other hand, involved guiding and motivating students, developing classroom activities, encouraging students to think, raising questions and debating issues, and engaging in professional development activities (MONE, 2009a; MONE, 2009b; MONE, 2009c; MONE, 2009d).

Moreover, authentic assessment is adopted as an approach for student evaluation. The curriculum suggests alternative assessment methods such as self-evaluation, evaluation of classmates, project and performance assignments, observation forms, and student portfolios. Teachers are expected to make use of these alternative methods selectively, in addition to the traditional methods such as oral and written tests, and quizzes. The aim of the authentic assessment is to assess the learning process, rather than assessing only the outcome. During the course of lessons, teachers are required to evaluate the development of their students' skills and competencies. Such an

assessment approach would provide valuable information to teachers, as they can identify student needs and learning difficulties, and provide adequate feedback and support (MONE, 2005a).

## **5. Findings**

In accordance with the analytical framework described above, the findings of the research will be presented in three parts: support from outside agencies, capacity to support innovation and profile of implementation.

### *5.1. Support from outside agencies*

#### *5.1.1. Teacher professional development*

Teachers who were teaching at the selected pilot schools were informed about the curriculum change in August 2004, and were invited to participate in an in-service training in the following month, just before the start of the new academic year. Academics from a number of universities in Ankara introduced the new curriculum in a two-week training programme. In one school, which was particularly established as a model school to pilot the new curriculum, teachers received intensive training for two months.

There was a subtle acknowledgement on the part of official authorities that there were limits to what they could achieve in a two-week training programme. However, they believed that it provided a good and sound foundation for the piloting process. Nevertheless, teachers appeared to be highly critical of the training. Very few teachers recognized the benefits of the in-service training; it was viewed as a general introduction to the new curriculum and some sessions were found particularly helpful. However, the majority believed that it was severely inadequate in preparing teachers for the implementation process. Teachers claimed that the duration of the training was too short, and that the quality was low as it was too theoretical and lacked practical guidance. Teachers also alleged that some of the lecturers were reading from their notes or PowerPoint presentations, and they did not seem to have a good understanding of the new curriculum. Moreover, during the lessons there were often heated discussions on the change proposals. Therefore, a significant amount of time was spent on discussions between teachers and academics about whether such changes were indeed necessary or would be beneficial to the Turkish education system, with some indeed protesting their necessity and beneficiality. Hence, there was less time left for



actually comprehending and understanding the proposed changes, and for learning how they should be effectively implemented in classroom settings.

Teachers unanimously believed that once academic year 2004/05 started, they felt ill-equipped to implement the new curriculum as the training left them with several unanswered questions, confusion, and uncertainties. Many also noted feelings of panic and inadequacy (also see Altun & Sahin, 2009). These teachers still considered themselves in a better position compared to teachers in non-pilot schools since the latter received an even shorter training. In general, the duration and quality of training was perceived to be a false start in curriculum implementation. In retrospect, teachers suggested that perhaps one of the most important shortcomings of the training was failure to explain adequately the rationale and philosophy of the revised curriculum. They believed that this inadequacy has resulted in less-than-desired implementation outcomes and in some cases strong resistance to change.

### *5.1.2. Provision of physical resources*

When the piloting phase started, there were no textbooks or teacher guides in schools as they were still in preparation. Teachers received ongoing guidelines from the Ministry through written communications and postings on the Ministry website. When nationwide implementation started in academic year 2005/06, textbooks and accompanying student workbooks for all subjects as well as teacher guides were provided to schools by the Ministry for free. Teacher guides were particularly appreciated by teachers, as they were considered detailed, informative, and explanatory. It also decreased teacher workload by releasing them from the requirement to prepare lesson plans. However, some teachers appeared to be critical of the new practice since they believed that teacher guides were too prescriptive, and tended to limit teacher imagination, creativity and spontaneity.

The textbooks provided by the Ministry were one of the most negatively received aspects of the revised curriculum. More than seventy percent of the teachers believed that the quality of textbooks was very low. According to them, the textbooks provided insufficient information on subject matters, the themes were listed, but there was little related content, or they were treated superficially. While explaining their views on the textbooks, teachers often used statements such as ‘books are empty’, ‘they are not even serious’, or ‘the books are a joke’. Teachers also noted insufficient connection between textbooks and workbooks, spelling mistakes, incorrect information,

and omissions in topics. Therefore, teachers believed that the textbooks required urgent and serious review.

### *5.1.3. Monitoring*

During the pilot phase, intensive contact with the Ministry was reported, as officials frequently visited the schools. The pilot schools were also requested to report their opinions on the textbooks and on different aspects of the new curriculum. Teachers maintained that when their comments on and evaluation of the curriculum materials and pedagogy were requested, they had taken it very seriously and had studied the textbooks in great detail, had conducted discussions with fellow teachers and had compiled their remarks in neatly organized reports. They were also invited to fill in a number of questionnaires that explored their experiences with the new curriculum. Nevertheless, teachers believed that their feedback was not adequately taken into consideration by the authorities. They have noticed over the years that changes have been made to the curriculum materials, yet they felt disappointed to see that their comments were hardly reflected in such modifications. This created a feeling that things remained the same in essence, and that their input had little impact on the reform process.

These impressions were also shared by some academics who suggested that the new educational programmes were implemented nationwide without carefully considering the feedback received from pilot schools (Gomleksiz et al., 2005; Güven & Iscan, 2006). Consequently, many teachers have lost their enthusiasm and drive to contribute to curriculum development. Several teachers explicitly said that they started to respond to the questionnaires by giving socially desirable answers and by portraying a rosy picture in which all things seemed right and everything worked efficiently, as planned by policymakers. 'Why bother?' said one teacher, 'The policymakers do what they believe is best with such little regard for teacher feedback. So when they ask, we tell them that everything is great, simply brilliant.'

The curriculum is also monitored by regular inspection mechanisms. Teachers stated a number of inadequacies in the monitoring of curriculum implementation by inspectors. First of all, there was a general belief that inspectors were not well-informed about the new curriculum and the changes introduced by the reform. For instance, teachers who received a short training from inspectors noted that the inspectors often presented the new curriculum from their PowerPoint presentations superficially, and responded to the

teacher enquiries inadequately. The inspectors were also perceived to be traditional and conventional educators; hence, they were viewed as less amicable to innovation and reform. Consequently, when teachers were observed by inspectors in classrooms settings, varying and sometimes inconsistent approaches of inspectors were experienced. One of the disappointments in this regard had to do with student assessment: Although the curriculum repeatedly emphasized competencies and skills, inspectors continued to ask questions which intended to assess students' knowledge acquisition.

## *5.2. Capacity factors*

### *5.2.1. Physical resources*

Teachers felt an increasing need to use learning aids to create more opportunities for hands-on learning and for undertaking activities described in student workbooks. The authorities provided various aids to pilot schools, hence teachers considered their schools better equipped compared to other schools. Nevertheless, they still complained about materials scarcity. Since the school budget was insufficient, teachers requested materials from students or collected money. Some other studies have also shown that materials shortage was considered to be one of the biggest challenges, especially in rural areas and in less advantaged regions of the country (Çınar et al., 2006; Doğanay & Sarı, 2008).

Use of ICT was an important aspect of discussions with regard to materials. Teachers displayed an eagerness to use computers and projectors in their classrooms. They seemed convinced that the use of ICT would significantly improve education quality. All the visited classrooms had either a TV or computer, or both. Teachers reported infrequent use of TV due to the lack of adequate educational materials. Nevertheless, computers and projectors were present in more schools. Except for one school, all the other schools had computers either in all observed classrooms or in some of them. One school had direct access to internet in classrooms as well. Although in a few cases, computers and projectors were provided by schools or teachers, in most cases parents provided the financial means. Teachers obtained educational programmes from sources on the internet or they were directly marketed to teachers by commercial providers. Teachers suggested that the Ministry should take the lead in providing digital resources.

Parental provision of educational materials has become a trend in recent years, as they were increasingly 'encouraged' to provide for all sorts of material needs, including desks, seats, curtains and ICT hardware (Karapehliyan, 2010). Parents expressed concern with regard to the financial burden on their family budget. Besides, this practice is contradictory to the official policy on free public education and creates inequalities between regions, schools or even among classrooms within a school. During school visits, it was possible to see a well-equipped and well-decorated classroom next to a classroom without elegant decorations, TV or computer. Consequently, classroom equipment and furnishing have become strong indicators of student socio-economic background and parental commitment to education. This phenomenon seems to lead to increased educational stratification and intensification of 'hidden privatisation' (Ball & Youdell, 2008) in the public education system.

### *5.2.2. School ethos and management*

All the visited schools were functioning well; the schools were conducting learning activities according to the time schedule and head teachers were regularly attending the schools. The majority of head teachers welcomed change proposals, as they believed immediate action was necessary to improve education quality. However, opinions differed with regard to what kind of change was needed and whether Curriculum 2004 was adequately addressing those needs. Although reductions in some content areas and increased student participation were viewed positively, they had reservations regarding various other aspects of the curriculum. For instance, many were puzzled with what appeared to be policy contradictions. They suggested that the Ministry enacted a number of education policies which made it more difficult to implement the new curriculum. One head teacher described this situation as follows: 'The government is not at peace with itself. It wants to do something and then does something else that would make it difficult or impossible to do the first one.' The most important contradiction voiced by head teachers was the examination system. Head teachers noted that the curriculum puts emphasis on competencies and development of some desired attitudes and skills, yet the nationwide entrance examination to secondary schools continues to assess knowledge acquisition. Hence, if they focused on what the new curriculum was advising them to do, then they would be inadequately preparing pupils for the exams. Their school would also be viewed as less successful since success was often defined by the number of

graduates who were eligible to attend good quality secondary schools (e.g. The Anatolian high schools or Science high schools).

Despite these reservations, head teachers have tried to make sure that the revised curriculum was implemented effectively. For this purpose, during the piloting phase and the following first years, some head teachers organised weekly meetings in their rooms, so that teachers from different grade levels and streams could join together and discuss their experiences. These meetings also served as an important venue for teachers to share classroom activities and other practices that had the potential of improving education quality. During the pilot year, head teachers also attended monthly meetings which were held at provincial level, in which they had the opportunity to meet school management from other pilot schools in Ankara. These meetings provided a forum for addressing some of the implementation-related concerns.

### *5.2.3. Teacher factors*

Teachers who participated in this study were experienced (17 years in the field on average) and were well-educated: three had Master's degrees, 46 were university graduates, and only one had graduated from a teacher training institute. A variety of components that are proposed in Curriculum 2004, such as student-centred learning and authentic assessment, were integrated in teacher education programmes in recent years, particularly with the Pre-service teacher education component of the World Bank-funded National Education Development Project (1994-1999) (Grossman et al., 2007). However, since the minimum number of years of experience was ten among the teachers who participated in this study, few were familiar with the concepts and approaches adopted by the new curriculum. Furthermore, as explained earlier, in general, teachers were not pleased with the in-service training, as they viewed it to be severely inadequate. They remarked that they learned about the new curriculum by practicing it, communicating, and cooperating with fellow teachers in their schools. Teacher guides were also considered helpful.

In terms of general teacher morale and commitment to the teaching profession, few negative comments were made. Some teachers made references to the need for improving teacher salaries, but, in general, teachers who participated in this study seemed to be doing fine. Indeed, the majority of teachers appeared to enjoy their profession and viewed interaction with children as one of the most positive aspects of their profession. However, it is

important to note that Turkish teachers in general have also suffered from the negative consequences of neoliberal policies in education as their employment conditions have deteriorated. The teaching profession also no longer enjoys the high status it had in previous decades (Büyükdüvenci, 1995).

#### 5.2.4. *Student factors*

Class size was cited by many teachers as one of the biggest obstacles to effective implementation of the new curriculum. In visited classrooms, maximum class size was 49; however, the average size was 35. Teachers believed that the new curriculum required smaller classrooms because student activities and assessment methods made further demands on time and teacher attention. Large class size limited opportunities for student participation, classroom activities and sitting arrangements, making it very difficult to arrange group work. Large classes also posed challenges in terms of classroom management. Teachers commented that the ideal class size should be between 20 and 25 in order to implement the new curriculum effectively.

The schools were situated in low to middle-income neighbourhoods which had received considerable numbers of internal migrants in the past twenty years. Internal migration is a significant phenomenon in Turkey (DeSantis, 2003) given that large numbers of people have moved from the rural eastern, southern and northern parts of the country to the central and western regions. Ankara has been one of the cities that received high numbers of internal migrants (State Institute of Statistics). According to teachers' accounts, several families that moved from rural to urban areas still encounter problems and dilemmas related to adapting to city life, and feel caught up between two different cultures and lifestyles. Financial hardship and irregular and insecure jobs are common among these families.

Furthermore, teachers noted that some other social and psychological problems also merit attention, such as domestic violence and divorce. Teachers who taught in the poorest of these schools suggested that children were happier at school and some appeared to be amazed by children's resilience and perseverance in the face of severe hardship. Furthermore, almost all pupils were living in flats and had few opportunities to spend time outside due to few available playgrounds and parental concern about safety. Hence, children had limited opportunities for play and for interacting with their peers in their neighbourhoods. Therefore, when children came to school they did not want to sit quietly in the classrooms, and kept running around

during breaks. There was a consensus among teachers that the new generation of pupils was harder to manage. They were viewed as being more active, difficult to contain and having a limited concentration span.

Parental interest in education differed significantly. In some schools, it was very high, but in some others, particularly in schools which were situated in very low-income neighbourhoods, it was reported to be low. Parents in several schools contributed to purchase of learning and teaching aids as they viewed education to be important. Several parents were also highly involved with research and project assignments of their children, to the extent that they were doing the assignments themselves. In every school, there were parents who were very committed to education and those who were not. But more disinterested and uninvolved parents were reported in very poor neighbourhoods, among those parents who struggled with financial uncertainties, those who had very limited education, and those who were undergoing severe marital problems and family disruptions.

### *5.3. Profile of implementation*

#### *5.3.1. Content coverage*

A large majority of teachers acknowledged that the content load in Mathematics, Turkish and Life Knowledge for primary one and two have been reduced significantly in the revised curriculum. Only a few complained about the number of topics that needed to be covered, while some criticised the high number of competencies defined for each course. According to these teachers, while the new curriculum was 'lighter' in terms of knowledge, it was overloaded with competencies and skills.

Although the curriculum materials for Turkish (the textbook, teacher guide and student workbook) were criticised by the majority of teachers, teachers were divided almost equally in their views regarding curriculum materials for Mathematics and Life Knowledge. Turkish was regarded as one of the most important subjects since language skills were viewed critical for learning in other subjects as well. However, teachers seemed to be disappointed by the quality of the textbook and omissions in teaching of Turkish grammar. The texts in the textbook were considered inadequate for young children as in some instances they were as long as four pages. Teachers remarked that pupils sometimes did not understand the texts, losing their interest and concentration. Besides, teachers believed that the texts should be meaningful, informative stories, yet the texts in the new Turkish

textbook lacked these qualities. Additionally, teachers noted their frustration over the numerous spelling and grammatical mistakes in the textbook and student workbook. More importantly, teachers criticised the lack of adequate attention to grammar. The curriculum puts emphasis on oral and written expression, and pupils are expected to learn the Turkish grammar gradually. However, teachers had strong objections to this policy. They believed that pupils should learn the grammar at early stages of their education. They remarked that children made too many grammatical mistakes and they had difficulties in correcting their grammar at higher grades as well.

In Mathematics, reduction in content load was most obvious and welcomed by many teachers. Some argued that children loved Mathematics in the new curriculum, as they no longer felt overwhelmed and scared by the amount and difficulty of the material they needed to learn. Hence, the success rate was seemingly higher in Mathematics. Nevertheless, several teachers complained about the inadequacy and low quality of exercises in the student workbook, and they argued that the exercises were too repetitive. In Life Knowledge, on the other hand, some teachers welcomed the efforts to link themes with the daily life of students and the focus on student activities. However, the other half criticised the superficiality, lack of interconnections among topics, and repetition of the same themes in the first three grades.

In all three subjects, teachers appeared to supplement the curriculum with additional resources. This tendency was the highest in Turkish in order to compensate for the omission of grammar, and in Mathematics teachers looked for additional exercises to improve student comprehension. Teachers mainly used internet sources – both national and foreign websites. In several cases, teachers shared their extra-curricular materials with their fellow teachers as well, and copied some of the materials for their pupils. Because of increased use of photocopy machine, some critics called the new curriculum ‘photocopy-centred education’.

### *5.3.2. Student-centred pedagogy*

Teachers generally had positive views on the new pedagogical approach and they have attempted to realize various aspects of it in their classrooms. They maintained that they were now using more learning and teaching aids in classrooms, giving increased voice to pupils by letting them to express their opinions, and engaging children in classroom activities. During lessons, most of the time seemed to be spent on activities described in the workbooks. Teachers also commented that activities made classroom management more



challenging, as children walked around, asked questions, and conversed with their classmates simultaneously. Teachers needed to be more patient with children and more capable of handling multiple demands on them. Yet, some argued that once they got used to this system, they found the previous system increasingly boring. The new approach was more demanding but also more fun. Teachers also seemed to benefit from use of computers and TV during lessons. They used educational CDs while teaching Turkish or Mathematics. For instance, several teachers noted that they used programmes to teach sounds to pupils, and it worked very well as children enjoyed learning very much and their learning had also improved.

The image of a classroom changed dramatically with the new curriculum. Previously, a quiet classroom was viewed positively; it was a sign that a teacher was successfully managing order, instructing children, with pupils dutifully listening to their teachers. However, now a noisy classroom was closer to the ideal. Noise indicated that pupils were busy with classroom activities, which often involved talking or handling materials. Teachers indicated that they were now using different teaching and learning methods. Previously, children read the texts at home, then a few pupils were asked to explain the topic in classroom, teachers complemented student explanations, and finally teachers asked a few questions to assess student comprehension. After the implementation of the new curriculum, they were doing different things, however, such as drama, games, and demonstrations, which entertained the children and made learning more enjoyable and fun.

Furthermore, teachers believed that the new pedagogical approach provided more opportunities to get pupils involved in their learning process. Hence, they assumed more roles and responsibilities by way of conducting research, doing project and performance assignments, sharing their opinions in class, and doing a variety of classroom activities. However, teachers also noted that, in practice, a number of policy intentions have never been materialised, or were adopted in a formalistic manner. For instance, large class size (classes with more than 30 pupils were considered large) limited student involvement, as not all children received the opportunity to participate actively in class. Likewise, group activities were not organized because of large class size and space limitations. Besides, the new curriculum aims to develop select competencies through performance and projects assignments which were designed to be done at home. However, in reality, these assignments were completed by parents with little contribution from their children, especially in the first years of curriculum implementation. Parents did the assignments since some believed the assignments were above

children's ability levels, or they wanted their children to get higher marks. In a highly competitive education system (Tansel & Bircan, 2006), parents were overly conscious and concerned about grades. Parental involvement in project and performance assignments became such a widespread phenomenon that many referred to the new pedagogical approach as 'parent-centred pedagogy' rather than 'student-centred pedagogy'.

After increasing concerns and criticisms of teachers and parents, in 2009 the Ministry advised schools to give such assignments only to complete in class, and no longer intend them to be done at home. However, although a few teachers were indeed giving simple assignments in class, the majority of teachers were still requiring their pupils to complete them at home. The main reason for this was time. Teachers believed that if they were to do the assignments at school, they would need a few lesson hours to do so. Otherwise, the assignments would eat into other subjects, putting teachers under further stress to complete the curriculum in due time. Besides, classroom space was also viewed to be inadequate. Teachers tried to inform parents about the rationale behind project and performance assignments in an attempt to convince them that the assignments should be done by children, not by parents. They tried to explain that as long as parents did the assignments, children's competencies would not develop. These statements were convincing for some, yet for many parents who were painfully aware of competitive nature of the education system, they were not persuasive enough. A few teachers also admitted that they were heavily involved in homework assignments of their own children, nieces and nephews.

### *5.3.3. Authentic assessment*

In line with similar studies on curriculum implementation in Turkey (Doganay & Sari, 2008), assessment emerged as one of the most problematic aspects of the new curriculum. In general, teachers believed that the assessment methods suggested by the new curriculum were too many, complex, and not adequate to classroom realities in which teachers worked. The class size (an average of 35) was considered too large for practicing the assessment methods suggested by the new curriculum. Teachers also maintained that since they were interacting with their pupils in all of the lessons and for consecutive years, until grade five, they got to know their pupils very well. They argued that there could be merits in recording observations if there was more than one teacher teaching in the same class. In such cases, teachers could benefit from each other's observations and

remarks. However, in the early grades there was only one teacher assigned per classroom; therefore, teachers argued that there was little point in periodically documenting their observations in written forms. Such requirements were viewed as unrealistic, tiresome, formalistic, and unnecessary, making their jobs heavier and not contributing to improvements in student assessment. A teacher, for instance, remarked:

We are asked to record our observations on multiple forms, and then we need to file and store them [...] It is all a waste of time, effort, and materials. We can better use our time on more meaningful and productive activities.

Furthermore, teachers commented that they filled in some observation forms but these were formalistic and aimed at fulfilling requirements. This was particularly done before scheduled school visits by inspectors.

Almost all teachers appeared to continue with their old ways of doing, and assessed their pupils with the methods that they were used to. Observation and student participation in classroom activities were the main methods teachers employed in assessing their pupils at lower grades. They often took observation notes in their notebooks, in which a page was assigned per student. Teachers also considered performance and project assignments as the curriculum suggested. However, because of over-involvement of parents in such assignments, teachers were not sure whom they were grading. Moreover, although written exams were not advised until grade three, some teachers still provided multiple-choice tests in Mathematics and organised competitions in reading and dictation. Some teachers occasionally made use of self-evaluation and competency evaluation forms that were provided in the textbooks.

## **6. Conclusion**

The findings of the research have revealed that teachers mediated and in some instances rejected curriculum change proposals, creating a mosaic of different implementation profiles at school and classroom level. Hence, Curriculum 2004 appears to have changed its shape and focus in the course of its implementation, echoing similar experiences in other countries (Altinyelken, 2010a; Bantwini, 2010; Cornbleth, 2008; Dello-Iacovo, 2009; Fernandez et al., 2008). This might be considered to be a surprising finding since teachers in Turkey are viewed as being deeply committed to the principle of centralised education policymaking (Karakaya, 2004). Nevertheless, teachers'

accounts and classroom observations have clearly showed that teachers mediated the curriculum in accordance with their beliefs, interpretations and classroom realities within which they worked. As Resh and Benavot (2009) suggest, schools have increasingly become critical mediators between official curricular policies and the knowledge to which students are exposed in classrooms. One of the important factors that underline this mediation process is the fact that teachers tend to perceive the official curriculum as a suggestion, and do not regard it as a compulsory curriculum frame narrative. Indeed, teachers develop their own curriculum narratives that conform to their pedagogical and content approach, and reflect their individual curriculum ideology, orientation, or platform. Although teachers are influenced by the ideas suggested in the curriculum documents, their practices are ultimately an outcome of their own teaching and school experiences, knowledge, beliefs and ideologies (Shkedi, 2009).

There was a consensus among teachers who participated in this study that the previous curriculum was overloaded with too many facts and subject matters, however, the new curriculum was also criticised for being 'too light'. Although some of the reductions in content load were positively received, such as in Mathematics, some others were opposed, as in the case of Turkish grammar. Teachers seemed to supplement the curriculum with additional information, introducing concepts or topics that they considered important. For this reason, teachers conducted research, primarily on the internet, and shared their resources with fellow teachers and with their pupils. The change proposals in the pedagogical approach were generally positively received. Some aspects of the new pedagogical approach were easily embraced, while some others were left out. For instance, increasing student talk, use of a variety of learning and teaching methods and materials, and incorporating ICT were adopted by the majority of teachers, yet opportunities for cooperative learning and group work were rarely exploited. In none of the classrooms, were pupils seated in groups, and teachers admitted that they rarely organised group work or created opportunities for children to interact with each other. Lastly, assessment emerged as one of the most problematic aspects of the new curriculum as the majority of teachers continued to use traditional assessment methods and made modest use of alternative methods introduced by Curriculum 2004 (see also Gelbal & Kelecioğlu, 2007; Yapıcı & Demirdelen, 2007).

The divergences between the intended curriculum and the profile of implementation observed in the schools can be explained by looking at various components of support from outside agencies and schools' capacity to

support innovation. In terms of support mechanisms provided by outside agencies, in this case Ministry departments, the research identified critical weaknesses in all the three sub-constructs. First of all, teachers had strong criticism of in-service training, confirming some other studies which highlighted the inadequacy of in-service training prior to the implementation of Curriculum 2004 (Bikmaz, 2006; Educational Reform Initiative, 2005; Gomleksiz, 2007). Its quality, both in terms of content and presentation, was found weak, and the lack of demonstrations and practical work were disappointing. Therefore, teachers felt ill-prepared to implement the new curriculum, particularly in applying the new pedagogical approach and using alternative assessment methods. This has resulted in misconceptions, wide divergences in interpretations of curriculum materials, and as suggested by some teachers, even in resistance to change proposals.

With regard to provision of physical resources, although the schools appreciated their special status as pilot schools and the preferential resource provision, they still complained about lack of adequate teaching and learning materials and their increasing reliance on parents for material supply. More importantly, there were serious concerns with regard to the quality of textbooks provided by the Ministry. Lack of adequate information in the textbooks and omission of certain topics motivated a large number of teachers to use the textbooks selectively and look for supplementary educational resources. Lastly, with regard to monitoring, teachers appreciated ongoing contact with the Ministry officials during piloting and their requests for feedback. However, teachers appeared to be disappointed by the poor use of teacher feedback and felt that surveys and school reports were primarily formalistic.

In terms of school capacity, teacher and student factors have been most influential. Although teachers were well-educated, experienced and committed to teaching, their knowledge and experience of the new pedagogical approach and assessment system were inadequate. Besides, teachers were not always convinced of the benefits of change proposals, therefore they seemed to adopt changes when they matched their beliefs, but modified or discarded them when they did not (Blake, 2002). For instance, they have increasingly involved pupils in teaching and learning processes, yet they preferred to supplement the curriculum with additional information and employ primarily the traditional assessment methods. Moreover, in line with recent research (Gelbal & Kelecioğlu, 2007; Korkmaz, 2006; Yapıcı & Leblebici, 2007), class size was often cited by teachers as one of the biggest challenges in implementation of the new curriculum. Large class size limited

student participation, group work, and use of alternative assessment methods, and made classroom management more challenging. The new pedagogical approach was considered time-consuming; therefore, in large classrooms there was additional pressure and stress for teachers to cover the curriculum materials within specified time periods. These findings suggest that school capacity to support innovation has been inadequately considered by policymakers. Schools in other parts of the country, especially in the east, would encounter bigger challenges in implementing the new curriculum, as their capacity to support change proposals would be modest (see also Yapici & Leblebici, 2007).

The findings highlight the importance of paying adequate attention to the implementation stage: if the implementation stage has not been well planned and structured, it may result in resistance to policy messages and in unexpected outcomes. Consequently, the reform policy may be diluted by ad hoc adjustments and short-term strategies for coping (Dyer, 1999) as in the case of project and performance assignments or assessment methods. As Jansen maintains, if policy can learn, it should learn from experiences at lower levels in the system, where it is creolised and re-creolised in response to local realities and contextual factors (Jansen, 1997). The research also points out the critical role of teachers in curriculum implementation and confirms that reform efforts that are not internalised and embraced by teachers would hardly succeed in initiating sustainable change. As Fullan (2007) suggests, this requires on-going participation of teachers in the curriculum development process, both in policy formulation, and in re-assessing and modifying the curriculum during the implementation stage. Providing teachers with opportunities to study the curriculum materials together with their colleagues is also important, since such avenues can generate self-reflection and growth (Sherin & Drake, 2009).