CHAPTER 9

TURKEY 2010

Transforming Education to Meet Challenges

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ABSTRACT

This chapter discusses the state of education in Turkey and the emergence of new key ideas within the framework of one of the strategic goals of the Lisbon 2010 Strategy: improving the quality and effectiveness of education and training systems. Since October, 2005, Turkey has been a European Union (EU) candidate country. In December 2006, the EU suspended eight out of 35 policy areas because of Turkey's restrictions regarding Cyprus. Nevertheless, Turkey remains committed to its bid to join the EU. The Lisbon indicators form key development points and emerging trends in education in Turkey.

A major aspect of Turkey's commitment to educational reform is meeting the challenges and standards of European Union (EU) requirements. While Turkey has made significant progress in recent years, the World Bank Education Sector Study (ESS) considers the economic and social reforms made "astonishing", but at the same time highlights the need "to systematically raise the educational qualifications of its population up to international norms" for full attainment of economic and social integration with Europe (World Bank, 2005, p. 1).

Quality of education and training is central to the European Union's economic development and social cohesion. For sustainable development through economic and social policies, Turkey needs to place more emphasis on quality educational provision at all levels from pre-primary to adult. The European Union Commission 2006 Turkey Progress Report points out that Turkey needs to continue to further develop its system of education in line with the Lisbon Strategy to facilitate its economic and social integration with Europe (Commission of the European Communities, 2006a).

Turkey has been improving its eight-year compulsory primary education program since 1988 with loans from the World Bank and the EU. Turkey and the European Investment Bank signed a €100 loan to finance information technology (IT) classrooms throughout Turkey. The World Bank provided $300 million for the first phase of the Basic Education Project (BEP I), which was completed in 2003, and agreed to sign an additional $300 million loan agreement for the second phase. In February 2006, the World Bank and the Turkish government signed a $105 million loan to finance the Secondary Education Project (SEP). The project aims to support curriculum reforms, information and communication technology (ICT) training, career guidance and counseling programs, and assessment and benchmarking of education programs and institutions. The ultimate aim is to equip students with "core skills for the knowledge economy and lifelong learning" (World Bank, 2006a). Andrew Vorkink, Country Director for Turkey until 2006, said this project "will help Turkey on its road to European integration and EU accession by raising secondary education levels" (World Bank, 2006b).

Road maps are available to help in developmental changes, and the Lisbon Strategy is one such road map. The aim of the strategy is to meet the challenges of globalization by strengthening "employment, economic reform and social cohesion as part of knowledge-based economy" (European Parliament, 2000). In regard to education and culture, the European Union Commission Turkey 2006 Progress Report states "Turkey has been participating successfully in the Community Programs," which provide students and staff at primary, secondary, and tertiary levels with a range of opportunities for development and mobility. Nevertheless, despite Turkey's successful participation in the community programs, the Commission comments that "[e]fforts in line with the Lisbon strategy need to continue, in particular on lifelong learning" (Commission of the European Communities, 2006a, p. 66).

FRAMEWORK

The European Union intends to promote cooperation between member states on policy issues rather than to establish a common policy on education. Article 149 of the European Community Treaty states that "the Community shall contribute to the development of quality education by encouraging cooperation between Member States and, if necessary, by supporting and supplementing their action, while fully respecting the responsibility of the Member States for the content of teaching and the organisation of education systems and their cultural and linguistic diversity" (European Union, 2006, p. 112).

The Lisbon European Council of March, 2000 adopted the objective of becoming "the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion" (Council of the European Union, 2000). Following the adoption of this objective, member states negotiated future concrete objectives for education and training systems and agreed on thirteen objectives grouped around three strategic goals (Table 9.1): *Improving the quality and effectiveness of education and training, facilitating the access of all to the education and training systems,* and *opening up education and training systems to the wider world* (European Commission, 2006; European Commission 2002; Commission of the European Communities, 2001).

TABLE 9.1 Strategic Goals and Objectives of Lisbon 2010 Strategic goals Objectives

1. Improving the quality and effectiveness of education and training systems in the EU	1.1. improving education and training for teachers and trainers
	1.2. developing skills for the knowledge society
	1.3. ensuring access to ICT for everyone
	1.4. increasing recruitment to scientific and technical studies
	1.5. making the best use of resources
2. Facilitating the access of all to the education and training systems	2.1. creating an open learning environment
	2.2. making learning more attractive
	2.3. supporting active citizenship, equal opportunities and social cohesion
3. Opening up education and training systems to the wider world	3.1. strengthening links with the world of work, research and society

3.2. developing the spirit of enterprise

3.3. improving foreign language learning

3.4. increasing mobility and exchanges

3.5. strengthening European cooperation

After implementing the Lisbon Strategy for five years, the European Council re-launched the strategy in 2005 for "making knowledge and innovation the real engines to drive lasting growth, making Europe more attractive for investment and employment, and placing growth and employment at the service of social cohesion" (European Council, 2005). Accelerating social and economic progress is considered to be the key to integration with the EU and the global society. To this end, the declarations made by the European Council of March 2006 included "Education and training are critical factors to develop EU's long-term potential for competitiveness as well as for social cohesion . . . Reforms must also be stepped up to ensure high quality education systems which are both efficient and equitable" (Council of the European Union, 2006, p. 6).

The three strategic goals and the objectives summarized in Table 9.1 form key development points and emerging trends in education in Turkey. The nation is determined to go down this long and challenging road, and has initiated concurrent changes in many areas over the years. The purpose of this chapter is to describe the state of education in Turkey and emerging key ideas in education within the framework of the strategic goal of *improving the quality and effectiveness of education and training systems in the EU.* There are five objectives under this strategic goal. The indicators regarding each are being pursued in Turkey.

STRATEGIC GOAL 1, OBJECTIVE 1.1: IMPROVING EDUCATION AND TRAINING FOR TEACHERS AND TRAINERS

The European Union urges member and candidate countries to reform their education and training in line with the Lisbon strategy. Turkey has made many policy decisions over the years leading to alignment. To further increase the quality and effectiveness of education and training systems in Turkey, priority now is being given to curriculum renewal, teacher competencies, and teacher qualifications.

Curriculum Renewal

The Turkish Ministry of National Education (MONE) has been working since 2003 with teachers, subject area experts, and teacher educators from universities to change the national curriculum, mainly in the areas of science, mathematics, social studies, and Turkish language and literature. To shift the emphasis from memorizing knowledge to constructing knowledge, the MONE has introduced a curriculum renewal process that significantly alters Turkish educational philosophy, content, methodology, and assessment. The new curriculum is constructivist in nature and puts more emphasis on student-centered instruction, allowing teachers to make more choices. The first phase of this renewal process is over. Since 2005 a new grades 1 to 5 curriculum has been in place. The second phase, concerned with grades 6, 7, and 8, began in 2006. The third phase aims to redesign the high school curriculum and will start after the completion of the second phase.

Teaching and learning in schools in Turkey are in the early stages of enormous change. There are more than 550,000 teachers in primary and secondary schools who have not been trained in a constructivist way of teaching, and who are in need of training and ongoing professional support. It will take considerable time to reap the benefits of a curricular change of this magnitude, and to produce a new generation of students who can use knowledge and skills effectively and independently in their society.

Teacher Competences

Common European Principles for Teacher Competences and Qualifications (European Commission, 2005) urges the development of policies at a national level to increase the quality and efficiency of education. To

this end, teachers:
- Need to be graduates of higher education institutions,
- Continue to develop themselves professionally throughout their careers,
- Are qualified enough to work in other EU countries.

In addition, teacher education institutions should work closely with schools and industry "to keep pace with the evolving knowledge society" (p. 2).

To improve the quality of teaching, and to enhance the implementation of the new curriculum as planned, the MONE recently has finished working on common in-service teacher competencies, liaising with selected parties from universities and schools. The competencies framework (Table 9.2) is composed of six core dimensions of competency with 31 sub-competencies and 233 performance indicators (ÖYEGM, 2006).

The competencies framework addresses the European Commission's recommendation that "the teaching profession should be seen as a continuum which includes initial teacher education, induction, and continuing professional development" (European Commission, 2006, p. 4). The framework will help accelerate the diffusion of the new educational philosophy with its constructivist stance through pre-service education, the induction process, and in-service training. It also will lay the foundations for establishing more accountable systems to facilitate what students are expected to accomplish educationally in order to function effectively in today's competitive global society.

TABLE 9.2 *Teacher Competencies Framework Competencies Sub-competencies*

A.	Personal and professional values, and professional development	1. Understanding, valuing and respecting students
		2. Believing all students can succeed
		3. Attaching importance to national and universal values
		4. Evaluating oneself
		5. Ensuring personal development
		6. Keeping pace with, and contributing to, developments in one's field
		7. Contributing to school improvement
		8. Knowing existing laws pertaining to professional work, and fulfilling duties and responsibilities
B.	Understanding student profile	1. Knowing and understanding developmental characteristics of students
		2. Considering needs and interests
		3. Valuing students
		4. Providing guidance
C.	Planning the teaching and learning process	1. Planning lessons
		2. Preparing materials

		3.	Facilitating the process of teaching and learning
		4.	Organizing extra-curricular activities
		5.	Diversifying instruction to meet student needs
		6.	Managing time
		7.	Managing the classroom
D.	Monitoring progress	1.	Determining measurement and evaluation techniques
		2.	Evaluating learning using a variety of methods of assessment
		3.	Analyzing assessment results to give feedback on student progress and learning
		4.	Modifying instruction as necessary
E.	Relationship with parents and the community	1.	Understanding the social environment
		2.	Liaising with relevant parties in the immediate environment as necessary
		3.	Organizing activities to meet the needs of parents and students
		4.	Meeting parents and establishing objective relationships
		5.	Encouraging parental involvement and cooperation
F.	Demonstrating knowledge of overall curriculum and content area	1.	Understanding fundamental values and principles of Turkish National Education
		2.	Demonstrating knowledge of subject area, and subject area teaching
		3.	Monitoring and evaluating special needs teacher education program

Teacher Qualifications

Teacher education programs in Turkey are delivered in all three cycles of Bachelor's, Master's, and Doctoral degrees as defined by the Bologna Process (European Commission, 1999). The purpose of the Bologna Process is to make academic degree standards across countries more comparable and compatible, seeking the adoption of a system composed of two cycles: undergraduate and graduate. It requires the completion of at least a three-year undergraduate program before starting a Master's and/or Doctoral program at the graduate level.

The Higher Education Council (HEC) is in charge of Turkish higher education. It updated pre-service teacher education between 1995–1999 with the help of a loan from the World Bank (Grossman, Onkol, &

Sands, 2007). The purpose was to "change the focus of Turkish teacher education to give a far greater emphasis on teaching methods" (p. 140).

To qualify as a teacher in Turkey, pre-service students are now required to graduate from a higher education institution which may offer either a concurrent or a consecutive teacher education model. Depending on the subject area, the pre-service students in the concurrent model either complete a four-year program leading to a Bachelor's degree, or a five-year program offering a combined Bachelor's and Master's (M.A.) degree. In the concurrent model, pedagogical and practical training is provided together with subject area knowledge. The consecutive program follows the attainment of a relevant undergraduate degree and takes a year and a half to complete. In this model, subject area specialists are admitted into an M.A. program for pedagogical and practical training. Practical training in both models includes observational visits to schools and practice teaching.

In 2006, the HEC updated and re-launched the concurrent model in twenty subject areas, after some eight years of implementation. Previous programs in this model provided participants with much more observation and practice opportunities, allowing them to experience a school context for a longer period of time. In the new programs, however, practice hours vary significantly from one subject area to another, giving more flexibility to the faculties of education in terms of resource allocation and to the curriculum in different subject areas. For example, the revised model now provides more elective courses from which to choose, and the faculties of education are allowed to determine up to one quarter of the total course credits.

Another change in the programs is the placement of more emphasis on the development of an interdisciplinary outlook: 50% of the courses in the revised model focus on subject area knowledge and skills development, 30% on teaching skills development, and 20% on fostering interdisciplinary understanding. On average, 65% of the total credits are allocated for theory-based courses and 35% for practice-based courses (Figure 9.1, adapted from HEC, 2006).

Still another major change in this model is that a community service component has been added to all concurrent pre-service teacher education programs: all pre-teachers are required to take a course called *Practice in Community Service,* in which they identify societal problems and develop projects to help solve them. They also are encouraged to hold workshops, seminars, or panels to discuss emerging societal issues.

The HEC stresses that, as the new primary and secondary school curricula are implemented via constructivist teaching, it is essential for this type of teaching be reflected in all teacher education courses to help pre-service teachers plan and implement constructivist lessons.

The challenge over the next decade, therefore, is to address the needs of the new national curriculum and the teacher competencies framework. The faculties of education in Turkey recruit about 26,000 pre-service teachers every year, and they need to make modifications in relevant courses to ensure that initial training is in line with the framework. Similarly, the MONE needs to update its year-long induction program for newly qualified teachers to meet the needs of about 10,000 new teachers appointed recently, and 40,000 teachers who will be appointed by the end of 2007.
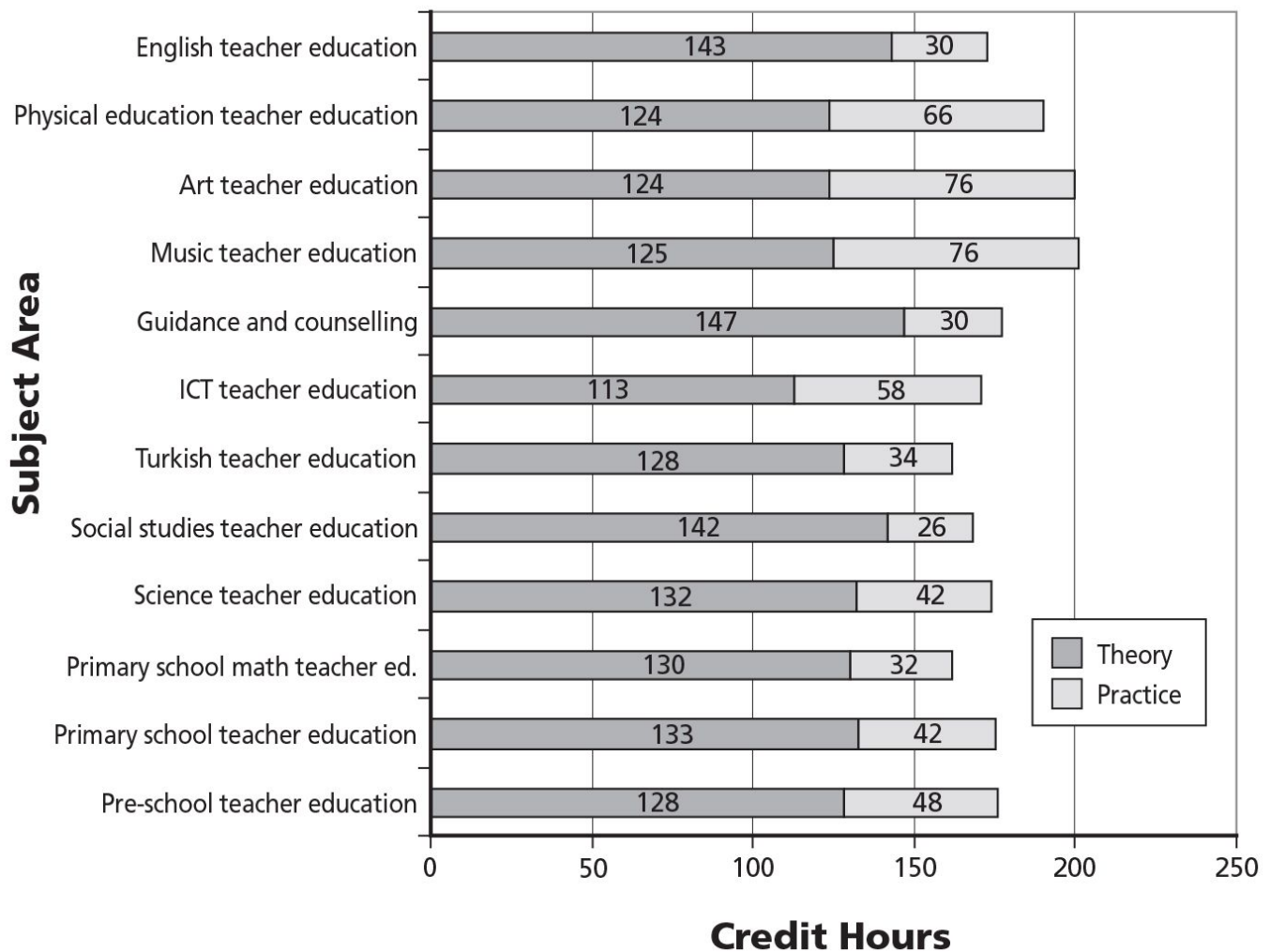
Figure 9.1 Credit hours for theory and practice (concurrent model).

STRATEGIC GOAL 1, OBJECTIVE 1.2: DEVELOPING SKILLS FOR THE KNOWLEDGE SOCIETY

The Lisbon strategy stresses the need to develop basic skills needed to live and function effectively in today's knowledge society: "Every citizen must be equipped with the skills needed to live and work in this new information society (Commission of the European Communities, 2005, p. 2). To this end, a framework of key competencies was developed by a working group. It was proposed that member states incorporate them into initial education and training, and into lifelong learning and working. These key competencies are: communication in the mother tongue; communication in foreign languages; mathematical competence and basic competence in science and technology; digital competence; learning to learn, interpersonal, intercultural and social competencies and civic competence; and entrepreneurship and cultural expression (Commission of the European Communities, 2005).

Reading Literacy

The EU regards reading literacy as an essential component of key competencies for social inclusion and personal fulfillment. To this end, the Union set a benchmark to measure progress toward improving reading skills: "By 2010, the percentage of low-achieving 15-year-olds in reading literacy in the European Union

should have decreased by at least 20% compared to the year 2000" (Commission of the European Communities, 2006b, p. 14). The EU utilizes the surveys under the Programme for International Student Assessment (PISA) to measure performance against the benchmark it set.

PISA is an internationally standardized assessment administered to 15-year-olds, covering the domains of reading, mathematics, science, and problem solving (OECD, 2003). Reading literacy in PISA is defined as "understanding, using and reflecting on written texts, in order to achieve one's goals, to develop one's knowledge and potential and to participate in society" (OECD, 2003, p. 272). Reading was the main focus of the PISA 2000. This focus enabled the EU to gain comparable data and measure progress using the reading scales. During the period of 2000–2003, average performance levels in reading, based on the results of the PISA, did not improve significantly in the EU.

Turkey joined PISA in 2003, and uses the results of the PISA 2006 survey to make comparisons. The performance of Turkey in 2003, however, may be analyzed vis-à-vis that of the two EU countries with the highest and lowest average scores in the four domains: Finland and Greece, respectively (see Table 9.3).

Reading literacy requires participants to demonstrate their proficiency in the following: retrieving information, forming a broad understanding, developing an interpretation, and reflecting on and evaluating the content of text (OECD, 2003).

There were five levels of proficiency in the PISA 2003 reading literacy survey with descriptors for each indicating levels of proficiency: Level 5 (above 625 points), Level 4 (from 553 to 625 points), Level 3 (from 481 to 552 points), Level 2 (from 408 to 480 points), Level 1 (from 335 to 407 points), and Below Level I (below 335 points). The results showed that Turkey had a higher percent of low scoring students when compared to Finland and Greece. In terms of mean scores, Finland significantly outperformed both Turkey and Greece. Although Greece's average performance of 472 was higher than the average performance of Turkey, both performances were within the range of 408 to 480 (Level 2). Turkey's performance of 557 (Level 4) at the private school level, however, was higher than that of both Greece and Finland. This discrepancy indicates considerable differences between schools. As far as low achieving participants are concerned, 37% of the participants from Turkey were at Level 1 or below. This did not mean they lacked reading literacy skill, but that they failed to demonstrate basic skills consistently. Given the European benchmark of a 20% decrease in the percentage of low-achieving 15-year-olds in reading literacy by 2010, Turkey should show a decrease from 36.8% to 29% in 10 years.

Mathematical Competence and Basic Competence in Science

There were four domains in the *mathematics* section of PISA 2003: quantify, space and shape, change and relationships, and uncertainty. There were six levels of proficiency in PISA 2003 mathematics literacy survey: Level 6 (above 668 points). Level 5 (from 606 to 667 points), Level 4 (from 544 to 605 points), Level 3 (from 482 to 543 points), Level 2 (from 420 to 481 points), Level 1 (from 358 to 419 points), and Below 1 (below 358 points).

Table 9.4 shows that Greece's average performance of 445 was higher than that of Turkey (423), but also that both are within the range of 420 to 481 (Level 2), and are significantly lower than the top performing country, Finland.

TABLE 9.3 Reading Literacy (PISA-2003)

Country	School type	Reading literacy (Mean)	Reading below level 1 (%)	Reading level 1 (%)	Reading level 2 (%)	Reading level 3 (%)	Reading level 4 (%)	Reading level 5 (%)
Turkey	Public	437	12.48	24.31	30.90	20.85	7.68	3.77
Turkey	Private	557						
Turkey	Overall	441						
Greece	Public	470	10.23	14.37	24.96	27.26	16.83	5.69
Greece	Private	524						
Greece	Overall	472						
Finland	Public	544	1.06	4.64	14.59	31.65	33.66	14.69
Finland	Private	537						
Finland	Overall	543						
OECD	Public average	488	6.66	12.37	22.75	28.67	26.91	8.28
OECD	Private average	517						
OECD	Overall	494						

TABLE 9.4 *Mathematical, Scientific and Problem Solving Competency (PISA-2003)*

Country	School type	Math literacy (mean)	Math proficiency level 1 [below level 1] (%)	Problem solving (mean)	Problem solving below proficiency level 1 (%)	Science literature (Mean)
Turkey	Public	418	25 [28]	403	51.17	430
Turkey	Private	569		536		563
Turkey	Overall	423		407		434
Greece	Public	442	21 [18]	446	32.66	479
Greece	Private	506		508		529
Greece	Overall	445		448		481
Finland	Public	545	5 [1.5]	548	4.56	549
Finland	Private	539		546		542
Finland	Overall	544		547		548
OECD	Public average	493	13 [8]	493	17.25	494
OECD	Private average	526		524		521
OECD	Overall	500		499		499

Turkey's performance of 569 (Level 4) at the private school level once again was higher than that of either Greece or Finland. A great challenge lies ahead for Turkey, to reduce the variation between schools while reducing the very high percentage (52%) of low achievers.

PISA *scientific literacy* has three aspects: scientific knowledge or concepts, scientific processes, and situations or content. Turkey's average of 434 was lower than that of both Greece and Finland. Private and public school performance of Turkey once more supported the observation that there were considerable differences between school types: public school performance of 430 may be interpreted as "students are able to recall simple factual scientific knowledge . . . ; and to use common scientific knowledge in drawing or evaluating conclusions." However, the private school performance of 563, higher than the average for private schools in Finland and Greece, could be taken to mean these students are able to function at level 2 and are "able to use scientific concepts to make predictions or provide explanations . . ." (OECD, 2004, p. 292).

Turkey's performance vis-à-vis Finland and Greece in the following four proficiency levels of the *problem solving* domain also suggests that Turkey needs to take action to reduce the number of low achieving students and differences between school types:

- Level 3 (> 592) Reflective and communicative problem solvers
- Level 2 (499–592) Reasoning and decision making problem solvers
- Level 1 (405–498) Basic problem solvers
- Below 1 (< 405) Emergent problem solvers

Table 9.4 shows again that Turkey had the highest percentage of low scoring students in comparison to Greece and Finland. Turkey's overall performance of 407 was close to the low end of level 1, and about 51% of 15-year-old pupils from Turkey were categorized as emergent problem solvers only.

Turkey needs to use the results from the PISA 2003 to monitor and compare the outcomes of education in terms of student performance in mathematics, problem solving and science, and to describe its current state

with reference to high and low performing EU countries.

Completion of Upper Secondary Education

The completion of upper secondary education is considered as facilitating entry into the labor market and access to higher education. Also, to the EU, "life long learning participation is strongly correlated to the level of initial education reached" (Commission of the European Communities, 2006b, p. 17). The EU benchmark for upper secondary school completion rate by 2010 is 85%: "The best-performing EU countries are: Slovakia (91.5%), Slovenia (90.6%), and the Czech Republic (90.3%)" (EU Press, 2006).

Compulsory basic education in Turkey became eight years of schooling in 1997. Secondary education became four years of schooling in 2005, but is not yet compulsory. There were some two million students enrolled in about 2,940 general high schools with 93,209 teachers as of 2007. The net schooling rate in secondary education including general and vocational programs increased from 43.9% to 54.9% of the age range in the five years between 2000 and 2005. Although the increase in the enrollment rate was about 25%, the completion rate in 2005 was less than 50% (DE, 2006). If the current rate continues, the enrollment in Turkey may go up to 75% by 2015. It will, however, take considerable effort to get closer to the EU benchmark in 10 years.

STRATEGIC GOAL 1, OBJECTIVE 1.3: ENSURING ACCESS TO ICT TO EVERYONE

The EU Council Lisbon, in 2000, agreed to promote the use of ICT to help achieve the strategic goal of being "the most competitive dynamic knowledge-based economy . . ." ICT improves both efficiency and productivity; therefore, the EU countries were urged to invest in ICT infrastructure and increase the use of ICT in education and training (European Commission, 2006).

Pre-service teacher education programs have included a compulsory course called *Educational Technology and Materials Development* since 1998. The curriculum renewal process in Turkey has placed emphasis on the use of ICT in schools. The eight core skills that will be developed across the curriculum include incorporating ICT into instruction, and developing the ability to use ICT for various purposes. To this end, the MONE has been investing significantly in ICT infrastructure in recent years. By February, 2006, 45% of primary schools and 86% of secondary schools were connected to the Internet, so about 10 million students have access to computers and the Internet (Eitek, 2006). The MONE encourages teachers and students to purchase laptops and desktops through low-interest loan schemes. Additionally, the ministry provides distance in-service teacher training to develop ICT-literate teachers, and to ensure ICT is incorporated into instruction. More than 263,000 certificates have been given by Microsoft Turkey (Eitek, 2006) to teacher completing such training. The household use of computers in Turkey is limited but growing. It is estimated that there are more than 16 million Internet users, increasing annually by 20%. Data from the Eurostat (2005) household survey (see Table 9.5) show that 58% of households have access to a personal computer in 25 EU countries (EU 25), whereas in Turkey it was 12%. Turkey needs to continue to invest in ICT and increase the number of computers in schools, while promoting their effective instructional use, including e-learning. To the Council, "there is a positive correlation between the availability of computers at school and average learning outcomes" (Commission of the European Communities, 2006b, p. 23).

TABLE 9.5 Households Having Access to Personal Computers and the Internet

Countries	Access to personal computers (%)	Access to the Internet at home (%)
EU 25	58	48
Finland	64	54
Greece	33	22

STRATEGIC GOAL 1, OBJECTIVE 1.4: INCREASING RECRUITMENT TO SCIENTIFIC AND TECHNICAL STUDIES

The Lisbon strategy asserts that global competitiveness is dependent on specialists in mathematics, science, and technology (MST), and that tertiary graduates in these areas are vital for the development of knowledge-based digital economy (Commission of the European Communities, 2006b). Therefore, it is essential that interest in mathematics, science, and technology be encouraged from an early age, and that a sufficient number of qualified teachers in mathematics, science, and technology be secured (European Commission, 2002).

Figure 9.2 shows the percentage of tertiary graduates in MST per 1000 people aged 20 to 29 years. The European benchmark in this area is an increase by at least 15% by 2010. During 2002 and 2003, the number of graduates increased by 16%, so the benchmark has been achieved (Commission of the European Communities, 2006b). As for Turkey, the number increased from 5.2% in 2003 to 5.6% in 2004. Turkey's growth rate of 8% is promising but it is considerably less than the average of EU countries.

STRATEGIC GOAL 1, OBJECTIVE 1.5: MAKING THE BEST USE OF RESOURCES

Education in Turkey is highly centralized, both structurally and financially. There are four main sources of finance as shown in Figure 9.3: central government (64.8%), local administrations (0.84%), private persons and institutions (1.56%), and households (32.8%) (DE, 2006). Over 97% of education expenditure comes from two sources: the central government and households. Sources from municipalities and provincial administrations, and private persons and institutions are minimal. Figure 9.4 shows the percentage distribution of K–12 and tertiary level education expenditure.
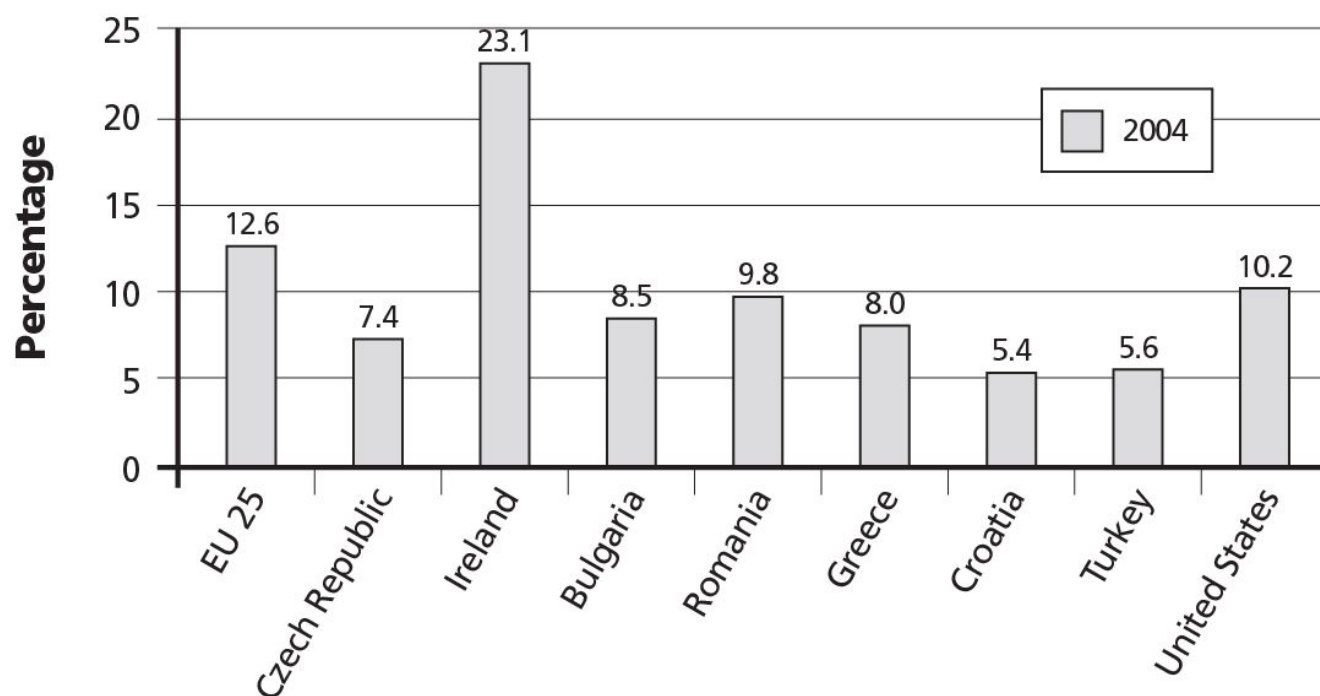

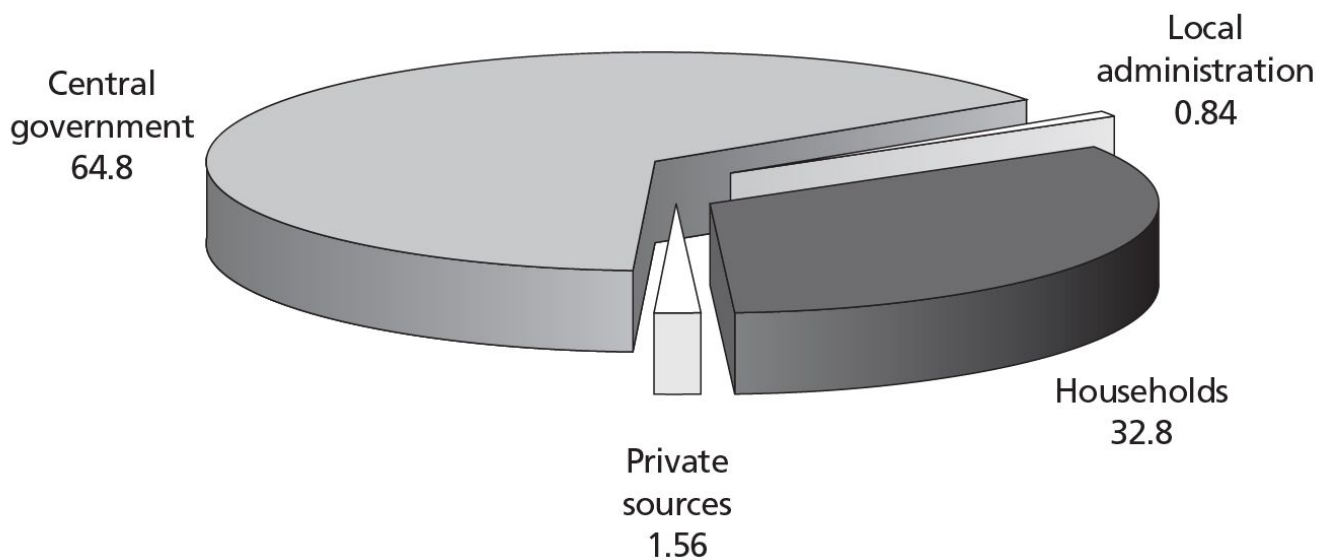*Figure 9.2* Percentage of tertiary graduates in MST.

Figure 9.3 *Sources of education expenditure in Turkey (adapted from DE 2006).*

Public Expenditure on Education

The Lisbon conclusions call for increasing investment in human resources to facilitate economic growth and social cohesion (European Commission, 2002). In 2003, total public expenditure on education as a percentage of the gross domestic product (GDP) in the EU ranged between 3.9% in Greece and 8.3% in Denmark (see Figure 9.5) (Eurostat, 2007). In Turkey, the expenditure on education was 3.08% in 1999, increasing to 3.74% by 2003 (Eurostat, 2007, OECD, 2006; UNDP, 2005). Expenditure on educational institutions from private sources for all levels of education in Turkey in 2002 was about 4.2% of GDP. The *Education Sector Study* in Turkey (World Bank, 2005) showed that combined public and private expenditure was about 7%, which was higher than such spending in the EU countries of France, Finland, the United Kingdom, and Germany. The *Study* claims that although significant resources are invested in education in Turkey, they are not used efficiently.
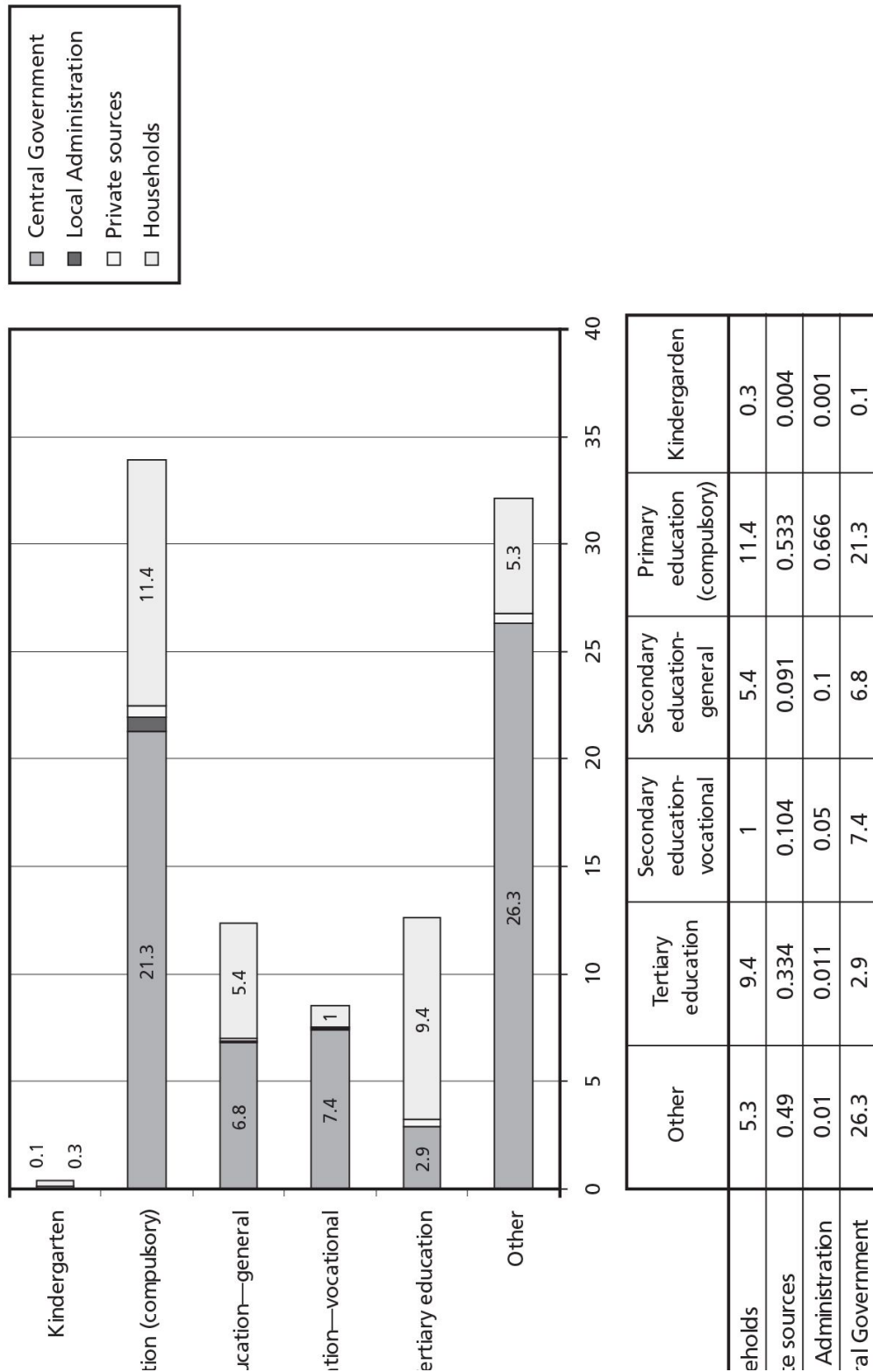
	Other	Tertiary education	Secondary education-vocational	Secondary education-general	Primary education (compulsory)	Kindergarden
eholds	5.3	9.4	1	5.4	11.4	0.3
e sources	0.49	0.334	0.104	0.091	0.533	0.004
Administration	0.01	0.011	0.05	0.1	0.666	0.001
al Government	26.3	2.9	7.4	6.8	21.3	0.1

Figure 9.4 Percentage distribution of K-12 and tertiary level education expenditure (adapted from DIE
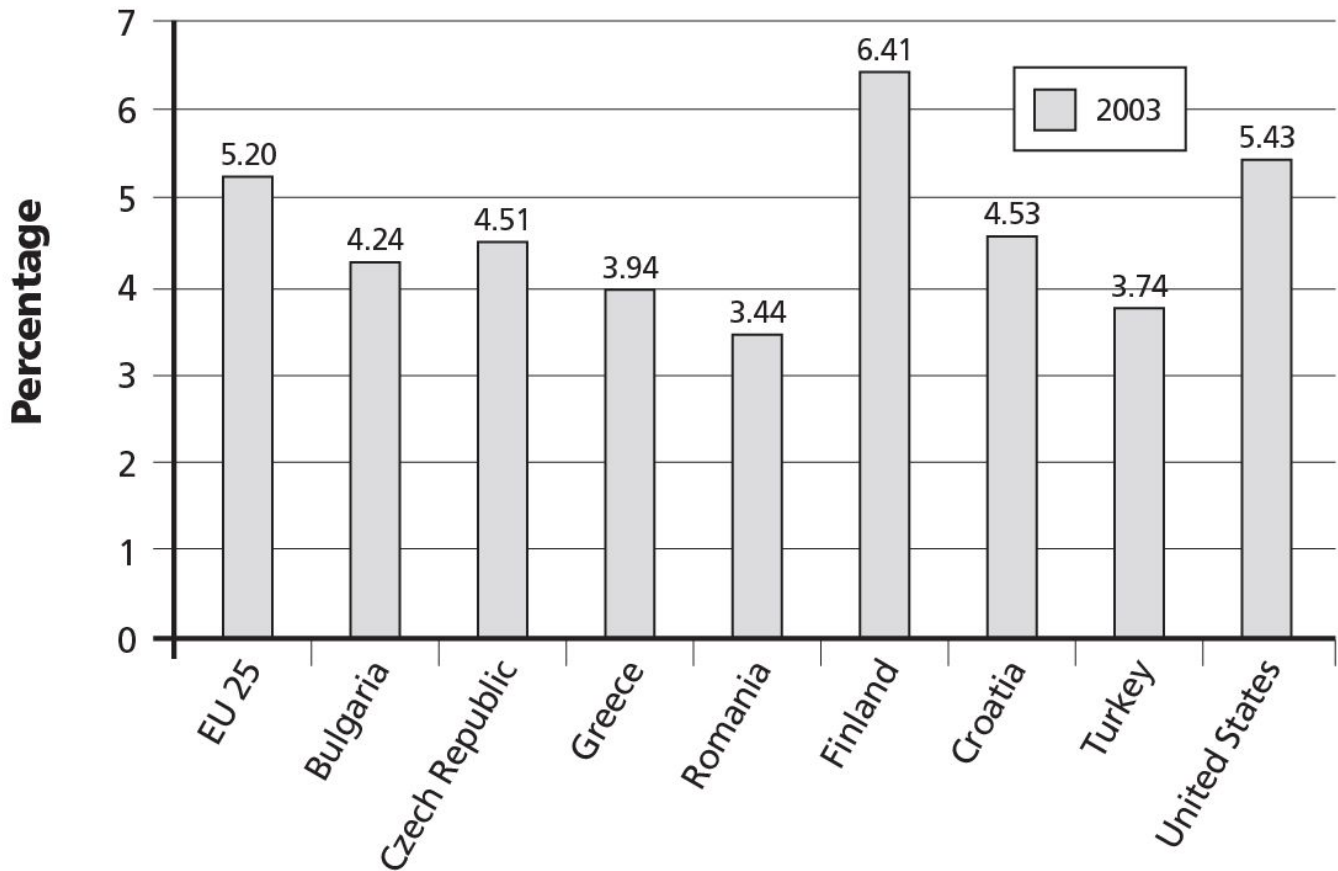
Figure 9.5 Public expenditure on education as percent of GDP.

STRATEGIC OUTLOOK

Turkey experienced instability for a long period of time prior to 2002 because of short-lived coalition governments pursuing inward-looking policies. In such a turbulent context, many political parties avoided making strategic decisions. Each time there was a new government, previously initiated policies were shelved (Aksit & Sands, 2006).

The Lisbon Strategy intends to foster the organization of education and training systems around quality, access, and openness to the wider world. Today, Turkey is much more outward-looking but still lacks a clear strategic perspective. Although numerous improvements have been made and more are under way, it is difficult to predict what the future holds. The major share of the Turkish 2007 budget was allocated to the Turkish Ministry of National Education but the provision of quality education remains a major developmental challenge in the country. To meet this challenge, there are several road maps that Turkey might use. However, to ensure sustainable progress and to address educational challenges facing the country in the 21st century, Turkey needs to develop an agreed collective vision encompassing the views of all stakeholders. A clear vision is necessary to ascertain major strategic issues affecting, and affected by, educational provision in Turkey, and to facilitate the translation of internal and external roadmaps into short and long term strategic goals.

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