

The examination of Türkiye's Curriculum Reform in terms of Key competencies of the European Commission

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Abstract

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The European Commission states that all European citizens have the right to high-quality, inclusive education and lifelong learning. The EU Commission has defined key competencies that include the knowledge, skills, and attitudes everyone needs for personal development and fulfilment, employment, social cohesion, and active citizenship. Program planners in European countries are integrating key competencies into their school curricula. The Curriculum Reform was carried out in Türkiye in 2024. The Renewed Curriculum aims to raise individuals who are producers and managers of science and technology, and to have digital competence and a culture of lifelong learning. This study examines the skills in the renewed curriculum in Türkiye in the context of the European Commission's key competencies. For this purpose, the skills and learning outcomes in the renewed program were examined, and two program development experts evaluated their compatibility with key competencies. The study was conducted based on a document review. The results of the study showed that the renewed curriculum in Türkiye included many skills, dispositions, and learning outcomes regarding the eight key competences of the European Commission. At the end of the research, recommendations for program planners were presented.

1. Introduction

In a rapidly changing and highly interconnected world, each person will need a wide range of skills and competences, and will need to develop them continually throughout life. Educational policymakers across the globe increasingly acknowledge the critical role of fostering 21st-century competencies in young learners, including problem-solving, creative thinking, self-regulation, and collaborative abilities. These skills are frequently embedded within the stated learning objectives of the national education curriculum (OECD, 2023).

The European Union's long-term success depends significantly on cultivating a highly skilled younger generation capable of fostering innovation and sustaining global competitiveness. Nevertheless, there is cause for concern, as recent data indicate a declining trend, with fewer than 10% of young individuals attaining high levels of proficiency. (EU, 2024). In an increasingly dynamic and globally interconnected environment, individuals must possess a broad set of skills and competencies, which they are required to continuously develop throughout their lifetime. The key competences outlined in this Reference Framework are intended to serve as a foundation for fostering more equitable and democratic societies.

They address the imperative for inclusive and sustainable economic growth, enhanced social cohesion, and the continued advancement of democratic values and culture (EU, 2019).

2. Theoretical foundation

2.1. Key competencies

Key competences are those which all individuals need for personal fulfilment and development, employability, social inclusion, sustainable lifestyle, successful life in peaceful societies, health-conscious life management, and active citizenship. They are developed in a lifelong learning perspective, from early childhood throughout adult life, and through formal, non-formal, and informal learning in all contexts, including family, school, workplace, neighborhood, and other communities.

Key competences for this Recommendation are defined as a combination of knowledge, skills, and attitudes. Knowledge is composed of facts and figures, concepts, ideas, and theories that are already established and support the understanding of a certain area or subject. Skills are defined as the ability and capacity to carry out processes and use the existing



knowledge to achieve results. Attitudes describe the disposition and mindsets to act or react to ideas, persons, or situations (EU, 2019).

The Reference Framework sets out eight key competences: Literacy competence, Multilingual competence, Mathematical competence, Competence in science, technology and engineering, Digital competence, Personal, social and learning to learn competence, Citizenship competence, Entrepreneurship competence, Cultural awareness and expression competence. The key competences are all considered equally important; each of them contributes to a successful life in society. Competence can be applied in many different contexts and a variety of combinations. Skills such as critical thinking, problem solving, teamwork, communication and negotiation skills, analytical skills, creativity, and intercultural skills are embedded throughout the key competences (EU, 2019). These key competencies provide a common framework for policymakers, educators, social stakeholders, and students (EU, 2019). Moreover, many European Union countries reference these key competences in their program reforms.

2.2. Türkiye Curriculum Reform

The Curriculum reform in Türkiye, which is called “the Century of Türkiye Education Model (CTEM)”, was carried out in 2024. The program is based on a holistic education approach that supports the multi-faceted development of people in terms of mental, social, emotional, physical, and moral aspects (MEB, 2004). Holistic education aims to support the growth of the entire individual, addressing not only intellectual abilities but also emotional, physical, social, artistic, and spiritual dimensions. Among these, the spiritual aspect is often considered the most essential feature of holistic education (Miller, 2007). In this context, the CTEM aims to develop students' conceptual and cognitive high-level thinking skills, as well as their social-emotional learning skills, literacy skills, tendencies, and values. In addition, the new Curriculum aims to educate students who are producers and managers of science and technology and to have digital competence and a culture of lifelong learning (MEB, 2024).

The CTEM conceptual skills involve both fundamental abilities that are learned and easily observed, as well as advanced thinking skills developed through mental processes. These skills help turn abstract concepts and complicated ideas into practical actions. Integrated skills involve tasks

combining at least two skills and demanding complex mental processes. In the CTEM, three key higher-level thinking skills are identified: (I) decision-making, (II) problem-solving, and (III) critical thinking. Social-emotional learning skills refer to the skills necessary for a person to establish positive relationships with themselves and their environment, to manage their emotions, to empathize, and thus to develop a healthy self. This study aims to examine the skills and dispositions of Türkiye's Curriculum Reform in terms of the Key Competencies of the European Commission.

3. Research methodology

To find out the skills and dispositions of Türkiye's Curriculum in terms of the Key competencies of the European Commission, a document review was conducted, one of the qualitative analysis methods. In the study, the document, the Century of Türkiye Education Model, was downloaded from the Ministry of National Education website (<https://mufredat.meb.gov.tr/>), and the Key Competences were downloaded from the European Commission website (<https://education.ec.europa.eu/focus-topics/improving-quality/key-competences>). During the research process, two curriculum and instruction field experts examined all skills in CTEM and Türkiye's new curriculum, and those associated with Key Competences were selected. In addition, examples of learning outcomes associated with skills and dispositions in the school curriculum were examined. The consensus of two program and instructional experts regarding the direct relationship between skills and learning outcomes with Key Competences was established as the primary criterion for determining the findings.

4. Results

In Table 1, CTEM includes literacy-related understanding, explanation skills, and dispositions such as curiosity, self-confidence, and initiative. In addition, learning outcomes related to comprehension and explanation skills are included in the Turkish Language Curriculum. The CTEM includes receptive and productive multilingual skills and dispositions such as curiosity, perseverance, self-confidence, and open-mindedness. The English Language Teaching Curriculum of Türkiye (ELTCoT) consists of many learning outcomes about acquiring and using all the knowledge and skills effectively and successfully to express themselves and understand others in all social.

Table 1*Key competences on Literacy and Multilingual*

Key competences	Skills	Dispositions	Examples of learning outcomes in the curriculum
Literacy	Understanding, explaining	Curiosity, Self-Confidence, Initiative, Confidence, Specialization, Focus, Creativity, Being Systematic, Asking Questions, Original Thinking	Turkish Language Curriculum -To be able to create meaning about what they listen/watch. -To be able to apply the rules of speaking.
Multilingual	Receptive Skills (Listening/Watching-Comprehension, Reading Comprehension) Productive Skills (Speaking-Expression, Writing-Expression)	Curiosity, Independence, Perseverance and Determination, Self-Confidence, Selectivity, Assertiveness, Trust, Open Mindedness	Students are expected to be able to get ready for the listening to)/watching comprehension process for the current content on “life in the universe and future with life in the universe; life in the future; space and technology” carefully. Students are expected to be able to organize a content for the assigned writing task on the current content “life in the universe and future with life in the universe; life in the future; space and technology” based on the model/example provided

Table 2*Key competences on Mathematical competence and competence in science, technology and engineering*

Key competences	Skills	Dispositions	Examples of learning outcomes in the curriculum
Mathematical competence and competence in science, technology and engineering	Science Observation, Scientific observation, scientific inference, data-based prediction, experimentation, evidence-based inference, Hypothesis generation, scientific model creation, Deduction, questioning, Induction, Analogy, logical inference, classification, comparison Analysis, comparison, generalization Mathematics Mathematical reasoning, Mathematical problem solving, Mathematical representation, Using tools and technology in mathematics	Curiosity, creativity, truth seeking, analytical thinking, doubt, original thinking, specialization, being systematic	Science Curriculum - To be able to create hypotheses about the functions of foods. - To be able to experiment to distinguish food content. - To able to make predictions based on scientific observations about the shape of the Earth. - To be able to experiment on the change of substances under the effect of heat. - To be able to design a scientific model to increase or decrease friction in daily life. Mathematics Curriculum - To be able to represent fractions in different ways that correspond to real-life situations. - To be able to make reasoning about the rules of number and shape patterns. - To be able to use mathematical tools and technology to measure angles. - To be able to solve problems related to the perimeter and area of a rectangle.

In Table 2, the CTEM includes skills such as observation, scientific observation, scientific inference, hypothesis generation, and experimentation in the field of science, and dispositions such as curiosity, truth seeking, doubt, original thinking, being systematic, and doubt. The program includes the following sample learning outcomes for these skills: “To be able to create hypotheses about the functions of foods”, “To be able to experiment to distinguish

food content”, and “To be able to make predictions based on scientific observations about the shape of the Earth.” The CTEM includes skills such as Mathematical reasoning, Mathematical problem solving, Mathematical representation, and using tools and technology in mathematics in the field of mathematics key competences. The program includes the following sample learning outcomes for these skills: “To be able to represent fractions in different

ways that correspond to real-life situations”. And “To be able to make reasoning about the rules of number and shape patterns”.

The CTEM includes digital literacy skills such as digital literacy, data literacy, and information literacy

Table 3

Key competences on Digital and Personal, social and learning to learn, and Entrepreneurship

Key competences	Skills	Dispositions	Examples of learning outcomes in the curriculum
Digital	Digital literacy, data literacy, and information literacy	Integrated into learning experiences	- Integrated into learning experiences (There is no learning outcomes) -To be able to determine the characteristics required for digital citizenship.
Personal, social and learning to learn	Self-regulation, self-awareness, cooperation, communication, and adaptation	Self-efficacy, Self-confidence, Perseverance and Determination, trust, focus	-Integrated into learning experiences (There is no learning outcomes)
Entrepreneurship	Decision making, entrepreneurship, evaluation, financial literacy	Enterprising, Professional, systematicity, original thinking, creativity	Social Science Curriculum - To be able to prepare an investment and marketing project proposal for a product he/she has designed - To be able to gather information about the copyright and patent processes of a product or idea

Table 4

Key competences on Citizenship and Cultural awareness and expression

Key competences	Skills	Dispositions	Examples of learning outcomes in the curriculum
Citizenship	Questioning, critical thinking, problem solving, Civic literacy, social participation, discussion,	Responsibility, critical thinking, independence, open-mindedness, and systematicity	Human Rights and Citizenship Curriculum Social Science Curriculum - To be able to interpret the basic rights and freedoms of being human. - To be able to determine the responsibilities required to be an active citizen. - To be able to question the importance of basic human rights and responsibilities. - To be able to summarize the problems encountered in the implementation process of democracy - To be able to discuss solution suggestions for the problems encountered in social life. Religious Education Curriculum - To be able to question fair treatment
Cultural awareness and expression	Cultural literacy, art literacy, critical thinking	Empathy, open-mindedness, playfulness, confidence	Social Science Curriculum - To be able to interpret the effect of respecting cultural characteristics on living together - To be able to produce ideas to maintain equal opportunities for individuals with special needs Religious Education Curriculum - To be able to gather information about Judaism, Christianity, Hinduism and Buddhism religions. - To be able to question the reasons for the differences in interpretation in religious understanding. - To able to analyze information about divine books.

The CTEM includes skills such as self-regulation, self-awareness, cooperation, communication, and adaptation regarding personal, social, and learning to learn key competences. Also, there are dispositions such as self-efficacy, self-confidence, perseverance and determination, trust, and focus. There are no

related to digital key competences. There are no directly defined learning outcomes for digital literacy skills and dispositions in the curriculum; however, these skills and dispositions are included in the learning experience.

directly defined learning outcomes for these skills and dispositions in the program, but they are included in the learning experience in the curriculum.

The skills, such as decision making, entrepreneurship, evaluation, and financial literacy,

are related to entrepreneurship, and dispositions such as enterprising, systematicity, and original thinking. The Social Science Curriculum includes learning outcomes. These are: “To be able to prepare an investment and marketing project proposal for a product he/she has designed.”, and “To be able to gather information about the copyright and patent processes of a product or idea”.

The CTEM includes skills related to citizenship, such as questioning, critical thinking, problem solving, civic literacy, social participation, and discussion. The model consists of responsibility, independence, open-mindedness, and systematicity dispositions. There are many learning outcomes related to citizenship key competences in the Human Rights and Citizenship and Social Science Curriculum. For example, “To be able to interpret the basic rights and freedoms of being human”, “To be able to determine the responsibilities required to be an active citizen”, and “To be able to question the importance of basic human rights and responsibilities”.

The CTEM includes many skills such as cultural literacy, art literacy, critical thinking, and dispositions such as empathy, open-mindedness, playfulness, and confidence related to cultural awareness and expression. There are some learning objectives in the Social Science Curriculum and Religious Education Curriculum. The examples are given: “To be able to interpret the effect of respecting cultural characteristics on living together”. “To be able to produce ideas to maintain equal opportunities for individuals with special needs.” “To be able to gather information about Judaism, Christianity, Hinduism, and Buddhism religion”, and “To be able to question the reasons for the differences in interpretation in religious understanding”.

5. Discussions

This study examines the skills of the CTEM and the new curriculum in terms of the European Commission's key competencies. The results revealed that the new Turkish Education model includes many skills and attitudes related to the eight competences defined by the European Commission. In addition, the new curriculum includes learning outcomes for these skills.

The CTEM and the English Language Teaching Curriculum of Türkiye include receptive and productive multilingual skills and dispositions. These skills and dispositions are consistent with the EU Commission language education policy and aims (EU, 2019). Thus, with the implementation of this

curriculum, students can use English and other languages effectively and successfully to express themselves and understand others in all social.

The results showed that the CTEM includes many skills related to science, such as scientific observation, scientific inference, experimentation, hypothesis generation, and scientific model creation, and dispositions toward science. In addition, the Science Curriculum has many learning outcomes related to these skills. Also, the model includes many mathematical skills such as mathematical reasoning, problem solving, representation, and using tools and technology in mathematics. Türkiye's 2022 Programme for International Student Assessment (PISA) and 2019 the Trends in International Mathematics and Science Study (TIMSS) exam results may play an important role in including many skills related to science and mathematics in the new model. The international exam results as PISA and TIMSS, are the main reference considered by the Türkiye National Education Administration when designing the new model (MEB, 2024). According to the 2022 PISA results, Türkiye ranked below the OECD average in high-level learning areas (OECD, 2023). Türkiye's success in TIMSS in 2019 and before has led to the development of science and mathematics curriculum in a skill-based program. As a result, Türkiye has become one of the successful countries by increasing its 2023 TIMSS score. For this reason, it was aimed to develop students' skills in science and mathematics.

The results of the study showed that the CTEM includes citizenship skills such as questioning, critical thinking, civic literacy, social participation, and dispositions such as responsibility, independence, and open-mindedness. In addition, the CTEM has many cultural awareness and expression skills, such as cultural literacy, art literacy, critical thinking, and dispositions such as empathy, open-mindedness, playfulness, and confidence. The Social Science Curriculum has many learning outcomes on citizenship and cultural awareness, and expression. The study revealed that the CTEM and new curriculum are based on global citizenship with competencies such as being sensitive and respectful to cultural differences. The skills and learning outcomes in the curriculum are important in terms of multicultural education (Banks, 2013). In recent years, multicultural education has become an important issue in many European countries' education policies and educational goals for solving problems related to refugee students (EU, 2020). Multicultural attitudes

involve the development of a sphere of social equality that produces an ethic of cultural inclusiveness (Guo, 2015). Also, research has shown that positive attitudes are directly related to culturally responsive teaching practices (Kim, et al., 2024). There has been increasing interest in equity and inclusive education in recent years, and researchers suggest a great need for diversity, equity, and inclusiveness in all OECD countries (OECD, 2023). Implementing the new curriculum can contribute to developing students' positive attitudes towards refugee students and solve the problem of education and integration of refugees. The integration of Syrian refugees into the Turkish Education System has become a problem for the Ministry of National Education (MEB, 2022). The Religious Education program includes skills and learning outcomes regarding recognizing, understanding, and respecting different religions, such as Judaism, Christianity, and Hinduism, in terms of cultural awareness. However, a few learning outcomes regarding cultural differences are not enough; they should be included in different grade levels of basic education, and new learning outcomes should be added to the religious education program.

The CTEM includes digital literacy skills and dispositions. With the implementation of the program, students may have important digital competencies for the 21st century, however, digital competencies are not defined as learning outcomes in the programs and are intended to be developed by providing learning experiences.

The results showed that the CTEM have skills related to personal, social, and learning to learn key competences. In addition, there are dispositions such as self-efficacy, self-confidence, perseverance and determination, trust, and focus. One of the important skills is self-regulation, which is the ability of students to manage their learning processes (Zimmerman, 2005). Students who have self-regulation skills can contribute to the effective use of today's technologies, such as artificial intelligence. Self-regulated students who can manage their learning processes can also develop their cultural awareness competencies. Zhu et al. (2023) revealed that the highest self-regulation skills demonstrated proficiency in all four cognitive intercultural competencies. There are no directly defined learning outcomes for these skills and dispositions in the program, but they are included in the learning experience. Program planners should define learning outcomes related to self-regulation in their programs.

The study revealed that the CTEM have some skills related to entrepreneurship, such as enterprise, systematicity, and original thinking. However, the Social Science Curriculum has few learning outcomes on entrepreneurship, and other courses in the curriculum do not have learning outcomes related to entrepreneurship. Entrepreneurship skills are one of the basic skills that students should have in the 21st century (OECD, 2023). According to the social entrepreneurship research report published by the EU, the majority of young people in Europe see entrepreneurship as very important (EU, 2023). Students' original ideas and the development of their entrepreneurial skills can be achieved through experiences in many courses in the program. Therefore, students' entrepreneurial skills should be developed.

6. Conclusions

In this study, the skills and dispositions of the CTEM and the new curriculum were investigated in the context of the European Commission's key competencies. The research results revealed that the CTEM includes skills related to eight competence areas defined by the European Commission. The results showed that CTEM includes many skills and dispositions related to mathematical competence and competence in science, technology, and engineering, citizenship, and cultural awareness and expression competencies. The science, mathematics, and social science curriculum has many learning outcomes related to these competences. Moreover, the study indicated that CTEM has skills and dispositions in digital, personal, social, and learning to learn, and entrepreneurship competences; however, the curriculum does not include learning outcomes related to these competences. Program planners should define learning outcomes related to the eight key competences of the EU. In CTEM and the new curriculum, there are limited skills related to higher-order thinking skills, such as creativity, critical thinking, and problem solving. They should include skills and learning outcomes aimed at developing higher-order thinking skills in the program.

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