

Raising Critical Thinkers: Critical Thinking Skills in Secondary Social Studies Curricula in Turkey

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ABSTRACT Developing critical thinking skills and raising critical thinkers is considered amongst the purposes of education. The aim of the present study was to investigate to what extent critical thinking skills were reflected in the attainments of the secondary social studies curricula in Turkey. Attainments of three secondary curricula in the field of social studies were examined in the study, which has a qualitative case study design, and the data was obtained from document analysis. The results demonstrated that none of the examined three curricula were found to establish a direct relationship between attainments and critical thinking skills. However, it was possible to find the attainments relevant to critical thinking skills when they were examined in detail. Attainments that were relevant to critical thinking skills were mostly found in the Geography curriculum (66.66%), followed by History (31.89%) and Democracy and Human Rights curriculum (16.66%) respectively.

INTRODUCTION

Various definitions exist regarding critical thinking, which is one of the most important skills of the 21st century. Based on the notable definitions, critical thinking can be defined as, “the art of analyzing and evaluating thinking” (Paul and Elder 2006a: 4) and “reasonable reflective thinking” (Ennis 1993: 180) which comprises, “the mental processes, strategies, and representations people use to solve problems, make decisions, and learn new concepts” (Sternberg 1986: 3), and consists of several skills and attitudes such as drawing conclusions about the validity and justifiability of arguments considering evidence (Cottrell 2005) and willingness to reason the beliefs (Mulnix 2012). Moore (2013) suggests that scholars who study the disciplines of history, philosophy and cultural studies have associated critical thinking with judgment, skepticism, a simple originality, sensitive readings, rational-

ity, an activist engagement with knowledge and self-reflexivity.

As stated by Paul (1991), critical thinking is a complex thinking process and essentially involves two dimensions, which are cognitive strategies (micro-skills and macro-abilities) and affective strategies (traits of mind). Under these dimensions, it involves 35 elements representing cognitive and affective strategies. Among the dimensions, affective strategies have a special emphasis and they incorporate the traits such as independent thinking, developing insights into egocentric or socio-centric understandings, and developing fair-mindedness. Micro-skills involve skills such as, distinguishing what is ideal versus what is actual, noticing important similarities and differences, and recognizing contradictions. Macro-abilities include abilities such as, critical reading and listening, evaluating the reliability of the source of information, and analyzing and evaluating arguments, beliefs, interpretations or theories. Facione (2013) suggests that interpreting, analyzing, evaluating, inferring, explaining and self-regulating skills are considered as the essential cognitive skills in critical thinking.

The importance given to critical thinking brings the characteristics of critical thinkers into question. Being a critical thinker is not something that happens in an instant. Being critical is a process in which the individual develops and exercises critical thinking strategies as well as is

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aware of his own ways of learning and thinking (Leicester 2010). A good critical thinker is an individual who is inquisitive, open-minded, flexible, fair-minded in evaluation, aware of personal biases, reliant on reasoning, cautious in making judgments, eager to seeking information and reasonable in selecting criteria (Facione 1990), makes judgments about the sufficiency of the information, attempts to find out the invalid arguments (Bailin et al. 1999) and is able to put forward significant questions and problems and formulate them, gather information about the issue, and evaluate and interpret the information effectively (Paul and Elder 2006b).

Teaching critical thinking has attracted considerable attention, since critical thinking is regarded as the beneficial and essential response to solve the problems confronted in the society, deal with unexpected situations effectively, make important and difficult decisions, and develop an effective thinking process about several issues (Jeevanantham 2005; Burke et al. 2014; Hughes 2014; Piergiovanni 2014). Therefore, developing critical thinking skills is considered as an instructional objective at all levels of the K-12 curriculum and these skills are expected to be integrated in the instruction of all subject areas (Facione 1990). Several studies indicate that critical thinking can be promoted through engaging students in activities such as simulations, oral or visual presentations, reenactments, multiple text analysis (Savich 2009), debate, role playing, network communication, project-based activities (Yang and Chung 2009), maps (McCall 2011), argument mapping (Mulnix 2012), writing assignments, classroom discussions (Rickles et al. 2013), discussion groups (Jones 2014), group work, field work, problem solving, multimedia (Mgomezulu et al. 2014), the procedure including pre-writing, hands-on activity, reflection and rewriting (Piergiovanni 2014), stakeholder debate (Sziarto et al. 2014), debate competitions, brainstorming, discussion, scaffolding and collaborative learning (Othman et al. 2015).

The role of the teacher and the educational process is considerably important in raising critical thinkers. Ennis (1988) attributes the achievement of schools in critical thinking instruction to the teachers having an explicit and clear idea about critical thinking. Thompson (2011) states that teachers need to implement teacher-centered learning and learner-centered learning in a balanced way, focus on the process and adopt an understanding in analyzing the past, evaluating today and estimating the needs for the future so

as to develop learners' critical thinking. Teachers are expected to be an intellectual mentor rather than being the source of information, and create a classroom environment in which discussions, decision-making, various analyses, freedom of asking questions and offering choices and alternatives are emphasized and considered important (Court 1991). In order to provide a supportive atmosphere for critical thinking, teachers are also expected to encourage, respect and value students' different viewpoints and questions (McCall 2011).

In Turkey, the secondary curricula underwent some adjustments in accordance with the constructivist approach after the primary curricula were reconstructed with respect to constructivism in 2004 (Akinoglu 2008). Consequently, basic skills, which are to be developed in the primary curricula, are also expected to develop in the secondary curricula. These common basic skills are determined by the Turkish Ministry of National Education (MoNE) as critical thinking, creative thinking, problem solving, researching and questioning, communicating, using information technologies, entrepreneurship and using Turkish accurately and effectively (MoNE 2007, 2011a,b). One of the important objectives of all curricula is to develop these skills, hence there is a need for curriculum evaluation studies indicating to what extent critical thinking skills are reflected in objectives, attainments, content, learning and teaching process, and assessment and evaluation aspects of the curriculum.

Critical thinking is a significant subject matter in social studies, which comprises a broad study area ranging from culture to environment, or from global affairs to society and individual. There are numerous studies about social studies and critical thinking skills (O'Reilly 1991; Sharma and Elbow 2000; Akinoglu and Saribayrakdar 2007; Akinoglu 2008; Alazzi 2008; Beyer 2008; Demirkaya 2008; Korkmaz and Karakus 2009; Savich 2009; Yang and Chung 2009; Peace 2010; Wolf et al. 2010; McCall 2011; Gainer 2012; Rickles et al. 2013; Burke et al. 2014; Mgomezulu et al. 2014; Sziarto et al. 2014). However, studies, which analyze and evaluate the curricula in terms of critical thinking skills, have not been found in literature. In the present study, attainments of three secondary curricula in the field of social studies are analyzed with regard to reflecting critical thinking skills.

The purpose of the present study is to determine the involvement level of critical thinking skills in the attainments of three secondary cur-

ricula in the field of secondary social studies and present the attainments relevant to critical thinking skills. Within this scope, the following questions were sought for an answer:

1. To what extent are critical thinking skills reflected in the attainments in the secondary history, geography and democracy and human rights curricula?
2. What are the attainments relevant to critical thinking skills in the secondary history, geography and democracy and human rights curricula?

METHODOLOGY

Research Design

This study was designed using the integrated multiple case study design, which is one of the qualitative research methods. In the integrated multiple case study design, more than one analysis unit (institutions, individuals, curricula) are considered individually in an integrated way and then compared with one another (Creswell 2012; Yildirim and Simsek 2013). In the present study, the attainments of three curricula, which are currently implemented in formal secondary schools in Turkey, were analyzed individually in terms of critical thinking skills in an integrated way. Then, circumstances of the three curricula in terms of the inclusion of critical thinking skills in the attainments were presented and they were compared with one another.

Data Collection Tools

Three secondary curricula, which are currently implemented in formal secondary schools in Turkey, were examined in the present study. They were categorized in the field of social studies and their subject area was coded as SS (Social Studies). Table 1 demonstrates the three examined secondary curricula in the field of social studies.

Table 1: The secondary curricula which were examined in the study

<i>Curriculum</i>	<i>Subject area</i>
Secondary History Curriculum (9 th -11 th Grades)(2007-2011)	SS
Secondary Geography Curriculum (9 th -12 th Grades) (2011)	SS
Secondary Democracy and Human Rights Curriculum (2013)	SS

Data Collection

The data for the study was obtained through document analysis from the three secondary curricula, which were developed between 2007 and 2013 and are currently implemented in the formal secondary schools in Turkey. Document analysis comprises the analysis of written materials including information about the phenomenon or phenomena intended to be investigated (Creswell 2012; Yildirim and Simsek 2013). Since the only source of data in the study was the documents which were the three curricula, the following procedure was pursued: Firstly, all of the curricula were obtained from the official website of the Board of Education (BoE), which is the official unit of Turkish Ministry of National Education responsible for all the planning activities related to education and instruction, and for the preparation and development of all the primary and secondary curricula. Then, three curricula in the field of social studies were determined as History, Geography, and Democracy and Human Rights curricula in accordance with the purpose of the study.

Data Analysis

A detailed analysis of the attainments, which were identified as the analysis unit in the three selected curricula was carried out in order to determine the inclusion level of critical thinking skills in the attainments. For the analysis of the obtained data, attainments which were directly associated with or which were relevant to critical thinking skills were determined based on the cognitive and affective strategies suggested by Paul (1991). They were presented as the number and percentage distribution in tables and samples from the attainments relevant to critical thinking skills were provided directly.

Validity and Reliability

Some precautions were taken for ensuring the validity and reliability. To begin with, the data for this study was obtained from the original documents. All of the secondary curricula which are presented in the official website of BoE and are currently implemented in secondary schools were reviewed. Then, they were classified into different fields and three curricula were selected from the ones in the field of social studies. The attainments of the selected curricula were examined in detail. Relevant literature was reviewed

and expert opinions were asked, so as to find out to what extent the attainments were interpreted accurately while determining the relevance between attainments and critical thinking skills. In accordance with the expert opinions, samples from the attainments relevant to critical thinking skills were provided directly under the title of related curriculum in the findings section.

RESULTS

The findings for the inclusion level of critical thinking skills in the attainments of the three examined curricula, and samples from the attainments are included in this section.

Attainments Relevant to Critical Thinking Skills in the Secondary History Curriculum

A direct relationship could not be found between the attainments and critical thinking skills in the secondary History curriculum. However, attainments relevant to critical thinking skills were identified when they were examined in detail. The number of attainments in the History curriculum, and the number and percentage of the attainments relevant to critical thinking skills were demonstrated in Table 2.

Table 2 indicates that the attainments relevant to critical thinking skills are included in the 9th grade at most (45.5%) and in the 10th grade (elective) at least (20%). Total percentage of the attainments for critical thinking skills is 31.89 percent. Table 3 displays the samples from the attainments relevant to critical thinking skills.

Table 2: Inclusion level of critical thinking skills in the attainments of secondary History curriculum

Grade/Course hours per week	Number of attainments	Number and percentage of the attainments relevant to critical thinking	
		n	%
9 th Grade (2 Hours)	44	20	45.45
10 th Grade (2 Hours)	64	22	34.37
10 th Grade (Elective-2 Hours)	20	4	20.00
11 th Grade (4 Hours)	33	8	24.24
11 th Grade (2 Hours)	24	5	20.83
Total	185	59	31.89

Attainments Relevant to Critical Thinking Skills in Secondary Geography Curriculum

A direct relationship could not be identified between the attainments and critical thinking skills in the secondary Geography curriculum. However, the attainments relevant to critical thinking skills were determined when they were examined in detail. The number of attainments in the Geography curriculum, and the number and percentage of attainments relevant to critical thinking skills were displayed in Table 4.

Table 4 shows that the attainments relevant to critical thinking skills are included in the 11th grade at most (77.27%) and in the 9th grade at least (42.31%). Total percentage of the attainments for critical thinking skills is 66.66 percent. Table 5 exhibits the samples from the attainments relevant to critical thinking skills.

Attainments Relevant to Critical Thinking Skills in the Secondary Democracy and Human Rights Curriculum

A direct relationship could not be observed between the attainments and critical thinking skills in the secondary Democracy and Human Rights curriculum. However, the attainments relevant to critical thinking skills were identified when they were examined in detail. The number of attainments in the curriculum, and the number and percentage of attainments relevant to critical thinking skills were displayed in Table 6.

Table 6 indicates that percentage of the attainments relevant to critical thinking skills is 16.66 percent. Table 7 displays the samples from attainments relevant to critical thinking skills.

An Overview of Attainments in the Secondary Curricula for Critical Thinking Skills

The inclusion levels of critical thinking skills in attainments of the three examined curricula are presented in Table 8.

Table 8 demonstrates that 162 out of 362 attainments in the three secondary curricula in the field of social studies are relevant to critical thinking skills. It can be inferred from this finding that attainments relevant to critical thinking skills are included in the three curricula at a considerably adequate degree with the proportion of 44.75 percent.

Table 3: Samples from the attainments relevant to critical thinking skills in the secondary History curriculum

<i>Grade</i>	<i>Attainments</i>
9 th Grade(2 Hours)	Learner inquires different viewpoints about a historical event, phenomenon or object based on the evidence and data provided.Learner evaluates the causes and effects of the Migration of Tribes in terms of political, social, cultural and economic aspects.Learner evaluates the political, social, economic and cultural activities of Turkish Seljukians in terms of the Anotolia's being a Turkish country.
10 th Grade(2 Hours)	Learner evaluates the Ottoman-Russian relationships in terms of the enlargement policies of Russia.Learner evaluates the causes of the French Revolution and movements of ideas emerging after the Revolution.Learner evaluates the characteristics of reform movements in the 18 th century and their effects upon the fields of society, culture, education and art.
10 th Grade (Elective-2 Hours)	Learner discusses the reflection of the relationships between Ottoman sultans and artists between 15 th and 16 th centuries upon the developments in the fields of culture, art and architecture with sample cases.Learner develops his own viewpoints by analyzing the reasons why the Industrial Revolution took place in England and how it influenced the world.Learner constructs argumentative essays regarding the political, social, cultural and economic developments in the second Ottoman constitutional period by analyzing the periodicals reflecting the movement of ideas in that period.
11 th Grade(4 Hours)	Learner evaluates the changes occurring in the economy of Ottoman Empire from the 17 th century onwards. Learner evaluates the changes and developments occurring in the field of education in Turkish-Islamic states. Learner evaluates the developments in the Ottoman education system after the Tanzimat Reforms.
11 th Grade(2 Hours)	Learner evaluates the economic structure in Turkish-Islamic states in terms of change and sustainability.Learner analyzes the understanding and construction of economy in Ottoman State.Learner evaluates the characteristics of Ottoman art.

Table 4: Inclusion level of critical thinking skills in the attainments of secondary Geography curriculum

<i>Grade/Course hours per week</i>	<i>Number of attainments</i>	<i>Number and percentage of the attainments relevant to critical thinking</i>	
		<i>n</i>	<i>%</i>
9 th Grade (2 Hours)	26	11	42.31
10 th Grade (2-4 Hours)	40	25	62.5
11 th Grade (Elective-4 Hours)	44	34	77.27
12 th Grade (Elective-2 Hours)	37	28	75.67
Total	147	98	66.66

Table 5: Samples from the attainments relevant to critical thinking skills in the secondary Geography curriculum

<i>Grade</i>	<i>Attainments</i>
9 th Grade(2 Hours)	Learner inquires the construction and distribution of the components of climate, and the factors that have an effect on those components.Learner infers about the characteristics and distributions of different types of climate.Learner analyzes the effect of natural environment upon human activities, and the adaptation processes of human to the natural environment within the scope of their interrelationships.
10 th Grade(4 Hours)	Learner infers about the causes and effects of migrations in the world by drawing on historical texts, documents and maps. Learner infers about the factors that have an effect on the settlement and distribution of population in Turkey.Learner analyzes natural disasters with regard to causes of their formation, characteristics, distributions and effects on human.
11 th Grade(Elective-4 Hours)	Learner analyzes the use of non-renewable sources within the scope of "exhaustibility" and "alternative sources". Learner inquires different attitudes in using the natural sources in terms of "environmental consciousness". Learners evaluates the recycling strategies in terms of sustainable use of non-renewable sources.
12 th Grade(Elective-4 Hours)	Learner interprets urbanization, migration and industrialization phenomena in accordance with their interrelationships and social effects. Learner infers about the potential changes in population, settlement and economic activities in the futureLearner evaluates the tourism policies of Turkey based on the environmental, cultural and economic effects of the tourism activities.

Table 6: Inclusion level of critical thinking skills in the attainments of secondary democracy and human rights curriculum

Grade/Course hours per week	Number of attainments	Number and percentage of the attainments relevant to critical thinking	
		n	%
(Elective-1 Hour)	30	5	16.66
Total	30	5	16.66

Table 7: Samples from the attainments relevant to critical thinking skills in the secondary democracy and human rights curriculum

Attainments
Learner evaluates how the democratic system functions in Turkey in terms of the characteristics of democracy by comparing and contrasting different application styles of democracy.
Learner interprets significant developments experienced in our country and in the world with respect to universal principles of human rights based on documents.
Learner evaluates the duties and responsibilities of government to citizens, and citizens to government and other people in terms of accomplishing democracy within the context of utilizing rights and freedoms.

Table 8: Inclusion levels of critical thinking skills in the attainments of three secondary Social Studies curricula

Field	Curriculum	Number of attainments	Number and percentage of the attainments relevant to critical thinking	
			n	%
SS	History	185	59	31.89
SS	Geography	147	98	66.66
SS	Democracy and Human Rights	30	5	16.66
SS	Total	362	162	44.75

DISCUSSION

Integrating critical thinking skills, which is one of the significant skills in the 21st century, into the curricula at all grades and implementing these curricula appropriately is considerably important in raising new generations who can think critically. In order to develop learners' critical thinking skills, they need to reflect in attainments of curricula or directly associated with attain-

ments. Hence, teachers who are responsible for implementing the curriculum are motivated and directed for developing learners' critical thinking skills. A direct relationship is established between attainments and critical thinking skills in the primary Life Science and Social Studies curricula (Akinoglu 2008; MoNE 2009). However, according to findings of the present study, a direct relationship was not found between the attainments and critical thinking skills in the History, Geography and Democracy and Human Rights curricula. Results of a study conducted by Alazzi (2008) demonstrate that teachers are not guided while designing critical thinking activities in their classes, since instructional guidebooks do not suggest activities related to critical thinking skills sufficiently. Therefore, it seems important that guidebooks or programs guide teachers for implementing critical thinking activities in their classes.

The present study suggested that even though a direct relationship was not established between attainments and critical thinking skills, the attainments relevant to critical thinking skills were identified when they were examined thoroughly. It was found out that the proportion of attainments relevant to critical thinking skills was forty-four point seven five and one of the almost every two attainments were relevant to critical thinking skills. This finding is evaluated as an indicator that critical thinking skills are included in the three secondary curricula at an adequate degree. The attainments relevant to critical thinking skills were mostly found in Geography curriculum (66.66%) and it was followed by History (31.89%) and Democracy and Human Rights curricula (16.66%) respectively.

Geography curriculum involves the attainments relevant to critical thinking skills at the highest level (66.66%). Geography, which is an important study area in formal education, provides an appropriate context and consists of many issues for developing and implementing critical thinking skills which are the inevitable skills in the pursuit of solutions to problems the world faces at the local and global level (Sharma and Elbow 2000; M Gomezulu et al. 2014). Demirkaya (2008) addresses classroom atmosphere, problem solving experiences at simple and advanced levels, questions related to critical thinking and discussion for the use of critical thinking strategies in geography instruction. A supporting environment for critical thinking can

be provided with maps in geography instruction (McCall 2011). Sziarto et al. (2014) suggest that stakeholder debates including, scaffold activities, geographic concepts, role-playing and reflection, are effective to develop students' critical thinking. Korkmaz and Karakus (2009) state that the more positive attitudes learners have towards geography course, the higher critical thinking dispositions and levels they possess. These studies suggest that a geography course can be considered as an important course in teaching and developing critical thinking skills and the results of the present study indicate that the attainments in geography curriculum aims to develop critical thinking skills.

Geography curriculum is followed by history curriculum with respect to the attainments relevant to critical thinking skills (31.89%). O'Reilly (1991) states that critical thinking skills need to be reflected in the subject areas of history so as to acquire the skills such as comparing and contrasting the interpretations or identifying the points of view as well as obtaining historical knowledge. Peace (2010) proposes some methods such as analyzing the arguments or examining the policies from different viewpoints for developing critical thinking skills in history instruction. Savich (2009) suggests that the more critical thinking skills are emphasized and integrated in history instruction, the higher scores students have on tests and the deeper understanding of history they possess. Akinoglu and Saribayrakdar (2007) also emphasize that developing critical thinking skills is considerably important in terms of history instruction. Those studies can be evaluated as an indicator of the importance of critical thinking skills in history classes and the present study implies that critical thinking skills need to be addressed more in the attainments in history curriculum

The proportion of critical thinking skills included in the attainments of Democracy and Human Rights curriculum is 16.66 percent. It can be inferred from this finding that critical thinking skills are reflected in the attainments of Democracy and Human Rights curriculum less than those of History and Geography. However, critical thinking skills are indicated amongst the basic skills intended to develop in the four out of five themes in Democracy and Human Rights curriculum (MoNE 2013). Gainer (2012) emphasizes the need for individuals who can think crit-

ically, to develop courage for inquiring complex problems and solve problems collaboratively for democracy to function appropriately. Providing students with critical thinking skills is a must for helping them become good citizens because critical thinking establishes a foundation for a democratic society (Beyer 2008; Yang and Chung 2009). These studies indicate that developing critical thinking skills for the establishment of democracy and human rights in a society can be considered as one of the significant purposes of education and the present study shows that attainments in the democracy and human rights curriculum need to be more associated with critical thinking skills.

CONCLUSION

The present study was conducted in order to find out the involvement level of critical thinking skills in the attainments of three secondary curricula in the History, Geography and Democracy and Human Rights curricula and to present the attainments relevant to critical thinking skills. The results demonstrate that a direct relationship is not established between the attainments of the three curricula and critical thinking skills. However, attainments relevant to critical thinking skills have been identified when they are examined in detail. Attainments relevant to critical thinking skills are mostly included in Geography curriculum and it is followed by History and Democracy and Human Rights, respectively. Critical thinking skills seem to be included in the three secondary curricula at an adequate degree.

RECOMMENDATIONS

It is considerably important for today's societies to improve curricula by evaluating them in terms of critical thinking skills and conduct comprehensive and comparative research, which evaluates the present circumstance of curricula for determining the inclusion level of critical thinking skills and other basic skills intended to be developed in all of the curricula. Future studies can be conducted with teachers and their opinions can be asked to find out to what extent they are aware of the curriculum in terms of developing critical thinking skills. Their practices about developing critical thinking skills can also be examined.

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