



ERPA 2014

## Primary school teacher candidates' views towards critical reading skills and perceptions of their competence

Ruhan Karadağ<sup>a\*</sup>

*aAdiyaman University, Faculty of Education, Adiyaman, Turkey*

---

### Abstract

The aim of this study to explore primary school teachers' views towards critical reading skills and their perceptions of competence. The participants are 25 teacher candidates who are fourth year students studying in the Department of Primary School Education at the Education Faculty of Adiyaman University. Adopting a qualitative data approach, the data of the study is collected via semi-structured interviews and descriptive statistics is used to analyze it. The results of the study reveal that the primary school teacher candidates do not consider themselves critically literate and they are not aware of critical reading strategies. Moreover, the results show that primary school teachers find the information they have received throughout their teacher education insufficient. The teacher candidates are also found to believe that they lack the skills that critical literacy requires and thus they need more training on this issue.

© 2014 The Authors. Published by Elsevier Ltd. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/3.0/>).

Peer-review under responsibility of the Organizing Committee of the ERPA Congress 2014.

*Keywords:* literacy; critical reading; teaching Turkish; primary school teacher candidate; qualitative research.

---

### 1. Introduction

The concept “literacy” has been defined in various ways until today. The variety in needs and the variation in circumstances have led to these different definitions (Güneş, 1994, p.499). Conventional literacy approach focuses on basic reading and writing skills such as the knowledge of alphabet (single letters) and phonetic awareness (Flewitt, 2008, p.125). This leads to the perception that in broad terms literacy is about writing and reading the written texts (Reinking, 1994). Literacy is basically defined as “the ability to read and write” (Thomas, 1994,

---

\* Corresponding author. Tel.: +90 416 223 19 88, fax: +90 416 223 14 26  
*E-mail address:* rkaradag@adiyaman.edu.tr

p.3)but literacy is not a simple skill or a type of activity, it is something involving different aims and talents (Guthrie&Kirsch, 1984). Literacy is actually a complicated and multifaceted phenomenon (Gibbons, Lascar & Mizon-Morales 1998, p. 27), which requires a great deal of knowledge and skills such as reading, writing, communication and critical thinking (International Literacy Institute, 2002, p. 9). Especially after 1990s the concept of literacy has been changed due to the technological advances, changes in life conditions in cities and needs emerged recently. Therefore, literacy has become involving various phenomena not a single one. That is to say, literacy has started to be used with different types of literacy such as computer literacy, technology literacy, internet literacy and media literacy (Altun, 2005). In addition to these, other types of literacy such as economy, environment, music and politics literacy (Patersson, 1996). In today's world, an literate individual has to possess not only reading and writing skills but also various mental talents and skills (NCTE, 2008; Mallette&Karchmer, 2002). It is thought that individuals who have turned their basic reading and writing skills into critical reading habits may form a society that can make use of information technologies (Sever, 2009).

Critical reading involves skills such as thinking beyond what is written in the text, questioning the rights and wrongs of it as well as interpreting it (Aşlıoğlu, 2008, p.1; Özdemir, 1997, p.19). Critical reading requires an individual judging, questioning and evaluating a text and drawing conclusions by making use of reliable resources and his own mind (Özensoy, 2011, p.13). Critical reading skills are not only for teachers actively working in classroom settings but also people who learn throughout their lives (Allen, 2004; Nilson, 2003). Improving reading skills, especially critical reading skills, is crucial in order for the completion of mental and affective development (Kuzu, 2004, p.60) and individual creation as well as the responsibility for the integration to the society (Neilsen, 1989, p.14). Critical reading requires active involvement in the text in an in-depth and more complicated way rather than superficial and mechanical way (Ateş, 2013, p.43).

Among the institutions where the knowledge and skills for critical reading should be initially taught are primary schools. Primary school teaching plays an important role in people's lives in acquiring the skills such as research skills, questioning, problem solving, critical thinking, reasoning, learning how to learn, and lifelong learning. Teachers are the main human resources in teaching all these skills effectively. Teachers are required to start their career with new qualifications in order to educate individuals of information society.

The curriculum of the Turkish course which was revised in 2004 and 2005 aims to educate individuals "who use Turkish effectively, think creatively and critically as enterpreneurs researching and questioning...". In this process, it is of vital importance for teachers to have critical thinking skills and use them effectively in order for their students to acquire this skill. Therefore, teacher education programs need to be structured in a way to provide teacher candidates with knowledge and skills regarding critical reading. This is only possible through the exploration of teacher candidates' views towards critical reading skills and their perceptions of competence. In the literature, there has been a number of studies done to investigate the literacy level of teacher candidates in different fields (Baker, 2008; Heeren, 2007; Kalu&Ekwueme, 2004; Kist, 2007; Probert, 2009; Siegel & Wissehr 2011; Spiropoulou et al., 2007; Stables, Martin & Arnold 2004). In addition to this, there has also been research on new literacies (Barr et al., 2000; Carmen, 2000; Cervetti, Damico & Pearson, 2006; Dezuanni, Kapitzke&Iyer 2010; Dooley, 2008; Henderson & Scheffler, 2003; Kovalik et al., 2010; McPherson et al., 2007; Mosley, 2007; Risko, 2012; Yeo, 2007; Warren & Kasbohm, 2004). However, the number of research studies exploring primary school teacher candidates regarding their views towards critical reading skills and their perception of competence is very few. Therefore, this study aims in-depth exploration of teacher candidates' views towards critical reading skills and their perception of competence, which may contribute to the preparation of primary school teacher education programs at education faculties in the light of the findings of the study.

The aim of this study to explore primary school teachers' views towards critical reading skills and their perceptions of competence. The following questions are addressed in the study:

- What are the views of primary school teachers about the concept of critical reader?
- What are their perceptions of competence and the training they have received on critical literacy?
- What are their cognitive state regarding critical reading strategies and what are the critical reading strategies they use?
- What are their expectations from and suggestions about the development of critical reading strategies?

## 2. Method

### 2.1. Model of the study

This study, which aims to determine the proficiency perceptions of the preservice teachers regarding their critical reading skills has been designed with phenomenology model based on the qualitative research. In the phenomenology there is subjectivity since an individual makes comments on a fact or event depending on his/her own perception and experience. The fundamental way of data collection in such studies is the interview technique. In this study, the semi-structured interview technique was used.

### 2.2. Participants

The participants of the study were students at Adiyaman University Education Faculty, Turkey. The sampling was composed of the 25 teacher candidates studying Primary School Teacher Education (4th grade). 16 of whom were females and 9 of whom were males. In determining the participants, criterion sampling method has been employed. The participants have been chosen among the senior students who have taken Teaching Turkish Course and are to graduate at the end of the year.

### 2.3. Data collection and analysis

The data of the study were collected from the 4th grade students in 2013-2014 academic years by using semi-structured interview technique. The researcher of the study prepared the questions to be used in the interviews in such a way to find answers to the main and sub aims of the study and then the validity study was done by submitting the questions to the views of the experts. The interview questions were revised according to the views of two experts; one is an expertise in the field and the other has experience in qualitative research methods and then an interview was held with four students who did not take part in the study group. The data gathered were analyzed using qualitative descriptive analysis technique. In this process, data were first described in a logical and meaningful way. Then, cause-and-effect relationships were scrutinized and some conclusions were drawn accordingly. In order to reflect the views of the participants in a striking way, the researchers often make use of direct quotations from the interviews. The primary school teacher candidates participated in the interviews were given codes and numbers. Teacher candidates were coded as TC1, TC2; Teacher Candidate1, Teacher Candidate2).

### 2.4. Validity and reliability of the study

The following measures were taken for the validity of the study: After collecting data through interviews, the answers to the open-ended questions were analyzed by the researcher and an expert separately. Then, considering the main themes and sub-themes emerged from the data, the issues of “agreement” and “disagreement” were discussed. For the reliability computation, the reliability formula suggested by Miles and Huberman (1994) was employed ( $\text{Reliability} = \frac{\text{Agreement}}{\text{Agreement} + \text{Disagreement}}$ ). The result indicated that the reliability score was 89%. Miles and Huberman (1994) state that reliability scores above 70% indicate reliability for a study. Therefore, as being 89%, the reliability score of this study (90%) was considered reliable.

## 3. Findings

In the study, the participants were first asked the following questions: “What do you think of critical reading?”, “Who do you think is a critical reader?”. The responses to these questions are distributed in Table 1. Table 1 presents the views of the participants regarding “critical reading” and “critical reader”. As seen in the table, the majority of the teacher candidates define the concept of critical reading as “Judging the reading material and not accepting all the information retrieved from the text, developing positive or negative attitudes towards the reading text while reading it, being neutral while reading, reading different types of texts and thinking from many different

perspectives”. As for their views about the “critical reader”, the majority of the teacher candidates define it as “Realizing the negative and positive sides of what is being read, reading different genres instead of relying on a single (type) of text, Not being a bigot, judging a text considering shared values not his own values and being open to change”.

Table 1. The Views of Primary School Teacher Candidates about Critical Reading and Critical Reader

Critical reading	Participants	f	%
Judging the reading material and not (directly) accepting all the information retrieved from the text	TC5, TC10, TC13, TC15, TC17, TC18, TC20, TC21, TC25	9	25
Developing positive or negative attitudes towards the reading text while reading it	TC7, TC12, TC13, TCA15, TC20, TC23, TC25	7	19.4
Being neutral while reading	TC6, TC13, TC19, TC22, TC24	5	13.8
Reading different types of texts	TC3, TC4, TC9, TC14	4	11.1
Thinking from many different perspectives	TC2, TC4, TC14	3	8.3
Reading by thinking	TC8, TC20	2	5.5
Being aware of what is being read	TC11, TC25	2	5.5
Evaluating a reading text with all its aspects	TC19, TC25	2	5.5
Doing extraordinary things that are against the existing system	TC16	1	2.8
Realizing the mistakes of the writer	TC1	1	2.8
<b>Critical reader</b>			
Realizing the negative and positive sides of what is being read	TC7, TC10, TC13, TC15, TC17, TC18, TC19, TC20, TC22, TC23, TC24, TC25	12	23.1
Reading different genres instead of relying on a single (type) of text	TC3, TC4, TC5, TC9, TC10, TC14, TC20, TC21, TC23, TC24	10	19.2
Not being a bigot	TC2, TC4, TC5, TC13, TC14, TC17, TC19, TC20	8	15.4
Judging a text considering shared values not his own values	TC6, TC13, TC14, TC15, TC21, TC22	6	11.6
Being open to change	TC2, TC5, TC18, TC19	4	7.7
Choosing what and who to read / Being aware of what he reads	TC12, TC18	2	3.9
Reading a large number of books	TC15, TC21	2	3.9
Knowing what he reads and the writer of the text he reads	TC11	1	1.9
Being neutral while reading	TC13	1	1.9
Respecting different point of views	TC15	1	1.9
Having and offering counter ideas to the existing system	TC16	1	1.9
Comparing what he reads to the other texts	TC20	1	1.9
Detecting and correcting the mistakes in a text	TC1	1	1.9
Being aware of what he reads	TC7	1	1.9
No description	TC8	1	1.9

TC2 expresses his/her opinion about critical reading as follows: “*It [critical thinking] is a system of thinking that allows [us] to consider a topic from different perspectives, not from a single angle. For example, it is something like not getting all the information from İlber Ortaylı when studying history, but getting it from different historians.*” On the other hand, TC10 emphasizes the fact that reading is a process of judging what one reads and explains it as follows: “*Critical reading does not mean directly taking what we read, but processing it in our brain to see whether it is parallel to our opinions and organizing it accordingly.*” Another teacher candidate TC20 states his/her opinions regarding critical readers as follows: “*It is the ability of pondering the text that is being read. In other words, it is not accepting the [information in] the text but comparing it to other texts as well as realizing the level of the text and identifying the deficiencies in it.*”

Table 2 illustrates the perceptions of teacher candidates of their competence regarding critical reading and the training they have received on it. As seen in the table, the majority of the teacher candidates do not consider themselves critical readers and feel incompetent regarding it. TC15 states his/her opinion as follows: “*I am not a person who reads a lot. In general, I read books that support my ideas. That’s why, I don’t consider myself a critical reader.*” TC20, another teacher candidate, says. “*You need to have a background to read critically. If you have a good background then you can criticise a reading material, but because we read to get information about*

something, I cannot see it well enough.” Table 2 also present the information about the training that the teacher candidates have received on critical reading. As seen in the table, all of the teacher candidates have stated that they have not received any training on critical reading. To illusturate this, TC4 says “I haven’t received any training but I try to improve myself regarding this. To be more precise, I’m trying. I have learned to make use of different sources. I’m trying to make use of different thoughts and sources like newspapers, magazines and articles.”

Table 2.The Perceptions of Primary School Teacher Candidates of Competence and Their Training on Critical Reading

The perceptions of primary school teacher candidates of competence towards critical reading		f	%
Sufficient	TC5, TC9	2	8
Partly Sufficient	TC3, TC4, TC10, TC11, TC18, TC19, TC20	7	28
Insufficient	TC1, TC2, TC6, TC7, TC8, TC12, TC13, TC14, TC15, TC16, TC17, TC21, TC22, TC23, TC24, TC25	16	64
The training that primary school teacher candidates received on critical reading			
Trained	---	--	--
Not trained	TC1, TC2, TC3, TC4, TC5, TC6, TC7, TC8, TC9, TC10, TC11, TC12, TC13, TC14, TC15, TC16, TC17, TC18, TC19, TC20, TC21, TC22, TC23, TC24, TC25	25	100

Table 3.The Cognitive States of Teacher Candidates Regarding Critical Reading Strategies and the Strategies They Use

The cognitive states of teacher candidates regarding critical reading strategies and techniques		Participants	f	%
I know what critical strategies are	Yes	TC19	1	4
	Partly	TC10, TC18, TC20	3	12
	No	TC1, TC2, TC3, TC4, TC5, TC6, TC7, TC8, TC9, TC11, TC12, TC13, TC14, TC15, TC16, TC17, TC21, TC22, TC23, TC24, TC25	21	84
The Strategies and Techniques Used	Hypothesing	TC19	1	4
	Question-Answer (Questioning)	TC10, TC18	2	8
	Comparing	TC20	1	4
	Non users	TC1, TC2, TC3, TC4, TC5, TC6, TC7, TC8, TC9, TC11, TC12, TC13, TC14, TC15, TC16, TC17, TC21, TC22, TC23, TC24, TC25	21	84

As seen in Table 3, the majority of teacher candidates do not know what critical reading strategies and techniques are and thus they do not use such strategies and techniques while reading. TC3 has expressed his/her opinion about it as follows: “Let’s skip this question, I don’t know. I have no idea about it.” TC5, on the other hand, says “I don’t know any strategies. Let’s put it in this way. It’s my own [personal] strategy: I’m reading history, actually only history because I don’t read much. While I’m reading them [history books], I read about opposing ideas about us rather than books that support my ideas because I want to understand what they think about us.” Another teacher candidate TC7 explains why s/he does not know critical reading strategies and techniques as follows: *We haven’t been [taught] critical reading approach since we started primary school. That’s the reason [why we don’t know these]. This [education] starts in family. Families are authoritarian and they do not approach anything critically. The same thing continues with the teachers at school because they behave in the same way and they do not ask for students’ opinions. That’s why we cannot approach things critically.*”

As seen in Table 4, teacher candidates think that training on critical reading skills should be given in teacher education to improve the critical reading skills. In addition to this, employing a critical reading approach in conducting classes, giving importance to reading newspapers, organizing conferences and providing critical literacy courses in the primary school teacher education program are mentioned among the expectations and suggestions of teacher candidates. One of the teacher candidate states his/her opinions about developing critical reading strategies as follows: “First of all, the education system should be changed. There should be a critical reading approach. It is said that we now have constructivist education but teachers have not changed yet. Teachers should also be given in-

service training, to me.”

Table 4. The Expectations of Teacher Candidates about the Development of Critical Reading and Their Suggestions Related to it

Expectations and Suggestions	Participants	f	%
The courses should be given to support critical reading	TC4, TC18, TC20	3	9.1
Conferences should be held.	TC3, TC12, TC21	3	9.1
Reading newspapers should be considered important.	TC2, TC3, TC7, TC15	4	12.1
The training should be hands-on.	TC4, TC5, TC7, TC9, TC13, TC22	6	18.1
Critical approach should be employed after primary school education	TC7	1	3.1
The reading habit should be given [to students].	TC8, TC17, TC25	3	9.1
Projects and training that help improve critical reading skills should be organized.	TC13, TC18	2	6.1
It should be given importance to in-service training.	TC7	1	3.1
Information and skills about critical reading should be given [to teacher candidates] in pre-service training.	TC4, TC5, TC7, TC8, TC11, TC25	6	18.1
Critical literacy courses should be given in primary school teacher education program.	TC2, TC7, TC13, TC21	4	12.1

#### 4. Results, discussions and suggestions

The findings of the study reveal that the majority of the primary school teacher candidates perceive the concept of critical reading as “judging what is being read, not accepting every piece of information read in a text, developing positive or negative attitudes towards the reading text while reading the text, being neutral while reading, reading different genres and thinking from many different perspectives”. As for how the critical readers, most of the teacher candidates think that critical readers are the ones who “can see the positive and negative sides of what they read, not relying on a single type of text but different genres, not being a bigot, judging a text considering shared values not his own values and being open to change”. In the literature review, critical reading has been defined in many different ways: “realizing what is read and paying attention to whether the information is reliable or not; questioning the information retrieved from a text” (Akyol, 2011); “reasoning the information in a text” (Darch and Kameenui, 1987); “evaluating what is being read without bias” (Belet, 2011); “thinking over a reading text and dwelling on the rights and wrongs of it” (Özdemir, 2000); “distinguishing good from bad and right from wrong” (Sadioğlu and Bilgin, 2008). This shows the links between how the teacher candidates perceive critical reading and critical readers and what is stated in the related literature. As for the views of teacher candidates about critical reading and critical readers, it can be stated that the participants have knowledge about them in very broad terms. Moreover, the findings of the study reveal that this knowledge is very little and the teacher candidates perceive themselves incompetent with regard to critical reading.

The results of the study indicate that the majority of the teacher candidates do not consider themselves critical readers and feel incompetent. This finding is parallel with the findings of the study conducted by Karasakaloğlu, Saracaloğlu and YılmazÖzelçi. This study by Karasakaloğlu, Saracaloğlu and Özelçi (2012) was conducted to explore the self-efficacy level of primary school teachers regarding critical reading and the results revealed that the participants had low self-efficacy levels. On the other hand, the study by Topçuoğlu, Ünal and Sever (2013) found that the students studying Turkish language teaching had high perceptions towards critical reading. This might lead the conclusion that the teaching reading course in the Turkish language teaching department has an impact on the self-efficacy level and reading methods and strategies of the students. Taking this into consideration, providing teaching reading courses in the Primary School Teacher Education program might have an impact on building positive attitudes towards critical reading and also contribute to the improvement of knowledge and skills regarding critical reading.

The findings also show that the teacher candidates have received no training about critical reading during teacher education. Also, the majority of the teacher candidates have been found to lack information about critical reading strategies and techniques and they have not employed any of them while reading. Considering teacher education programs and teacher qualifications, this finding might be worrying. The importance of including critical reading training into teacher education was emphasized by researchers long before (Wolf et al, 1967). However, there are

studies in the literature indicating the low level of critical reading skills among students at university level (Aşılıoğlu, 2008). The study conducted by Karasakloğlu, Saracaloğlu and YılmazÖzelçi (2012) shows that it is of vital importance for the improvement of the teacher education programs to have teacher candidates with critical reading skills and high self-efficacy levels regarding it.

The results of the study also reveal that teacher candidates have opinions and suggestions about including practical courses regarding critical reading in teacher education. In addition to this, conducting lessons with a critical approach, giving importance to reading newspapers, organizing conferences and providing critical literacy courses in the primary school teacher education program are found in the study. Alson, Küçüköğlu (2008) states that educational approaches to raise “critical reading awareness” are beneficial and extending such an approach to all educational institutions might contribute to educate individuals with high levels of consciousness and with critical reading skills. In addition to this Topçuoğlu-Ünal and Sever (2013) state that the content of the courses at universities should be designed to better teach critical reading strategies.

The following suggestions might be given based on the findings of the study:

- Functional courses to improve students’ critical reading knowledge and skills might be included in the undergraduate programs.
- Critical literacy courses should be a part of curriculum from the beginning of primary education to higher education programs.
- This study attempts to explore the views of primary school teacher candidates about critical reading and their perceptions of competence. Similar studies might be conducted with other primary school teacher candidates at other universities.
- The findings of the study are limited to the data collected via semi-structures interviews. Similar studies might be conducted employing quantitative research techniques with larger samples.
- This study is limited to the views of the teacher candidates studying Primary School Teacher Education at the Education Faculty of Adıyaman University. In the future studies, a comparative analysis might be done by including different samples to the study.

## 5. References

- Allen, M. (2004). *Smart thinking: Skills for critical understanding and writing*. Oxford: Oxford University Press.
- Altun, A. (2005). *Gelişenteknolojilerveyeniokuryazarlıklar*. Ankara: AnıYayınları.
- Aşılıoğlu, B. (2008). The importance of critical reading for cognitive learning and the ways to improve it. *D.Ü.ZiyaGökalep Eğitim Fakültesi Dergisi*, 10, 1-11.
- Ateş, S. (2013). Critical reading and its teaching as a skill. *TURJE, Turkish Journal of Education*, 2 (3), 40-49
- Baker, J. (2008). *Exploring technological literacy: Middle school teachers' perspectives*. Unpublished doctoral thesis, Walden University.
- Barr, R, Watts-Taffe, S, Yokota, J, Ventura, M & Caputi, V. (2000). Preparing teachers to teach literacy: Rethinking preservice literacy education. *Journal of Literacy Research*, 32(4), 463–470.
- Belet, D. (2011). Eleştirelokumayönteminin gelişirilmesinde hikaye anlatmayönteminin kullanılması: öğretim deneyi uygulaması. *Bilig*, 59, 67-69.
- Carmen, L (2000). New literacies in teacher education. *Journal of Adolescent & Adult Literacy*, 43(5), 424 – 435.
- Cervetti, G., Damico, J. & Pearson, P. D. (2006). Multiple literacies, new literacies, and teacher education. *Theory into Practice*, 45 (4), 378 – 386.
- Coiro, J., Knobel, M., Lankshear, C., & Leu, D. J. (2008). Central issues in new literacies and new literacies research. In J. Coiro, M. Knobel, C. Lankshear, & D. J. Leu. (Eds.), *The handbook of research in new literacies* (pp. 1–22). Mahwah, NJ: Lawrence Erlbaum.
- Darch, C. & Kameenui, E.J. (1987). Teaching LD students critical reading skills: a systematic replication. *Learning Disability Quarterly*, 10(2).
- Dezuanni, M., Kapitzke, C. & Iyer, R. (2010). Copyright, digital media literacies and preservice teacher education. *Digital Culture & Education*, 2(2), 230–245.
- Dooley, C. M. (2008). Multicultural literacy teacher education: seeking micro-transformations, *Literacy Research and Instruction*, 47(2), 55-75.
- Flewitt, R. (2008). Multimodal literacies. In J. Marsh & E. Hallet (Eds.), *Desirable literacies: Approaches to language and literacy in the early years*. SAGE Publications Ltd.
- Gibbons, J. Lascar, E. & Mizón-Morales, M. I. (1998). The role of social class and home literacy practices in literacy proficiency in a group of Chilean adolescents. In T. O'Brien (Ed.), *Language and literacies: selected papers from the annual meeting of the British Association for Applied Linguistics held at the University of Manchester*, (September 1998).
- Guthrie, J. T. & Kirsch, I. S. (1984). The emergent perspective on literacy. *Phi Delta Kapan*, 66 (5), 351-355.
- Güneş, F. (1994). Okur-yazarlık kavramı ve düzeyleri. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 27 (2), 499-507.
- Heeren, E. S. (2007). *Exploring the new literacies: Instruction and assessment practices of middle school master teachers of internet literacy*. Unpublished doctoral thesis, University of Memphis.
- Henderson, Martha V. & Scheffler, Anthony J. (2003). New literacies, standards, and teacher education, *Education*, 124 (2).
- International Literacy Institute (April 2002). *Towards guidelines for the improvement of literacy assessment in developing countries: Conceptual*

- dimensions based on the lap project. A working document prepared by the International Literacy Institute University of Pennsylvania. Retrieved 21 June 2012, from <http://www.literacy.org/products/ili/pdf/LAPGuidelines.pdf#search='Current%20literacy%20relative%20absolute%2C'>
- Kalu, I. & Ekwueme, C. O. (2004). Assessment of teachers' level of literacy and attitude towards information and communication technology application in science, technology and mathematics education. *e-Journal of Instructional Science and Technology (e-Jist)*, 7(1).
- Karasakaloğlu, N., Saracaloğlu, A.S. & YılmazÖzelçi, S. (2012). Sınıföğretmeni adaylarının meştrelokuma öz-yeterliklerine ilişkin algıları. *Mustafa Kemal Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 9 (19), 405-422.
- Kist, W. (2007). Basement new literacies: dialogue with a first-year teacher. *The English Journal, (High school edition)*, 97 (1), 43-48.
- Kovalik, C. L. Jensen, M. L. Schloman, B. & Tipton, M. (2010). Information literacy, collaboration, and teacher education. *Communications in Information Literacy*, 4(2).
- Kuzu, T. S. (2004). Etkileşimsel modelde uyunokuma öğretiminin Türkçe bilgilendiricilerin anlamadüzeyine etkisi. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi*, 37(1), 55-27.
- Mallete, M. H. & Karchmer, R. A. (2002). Lessons learned from preparing preservice teachers to integrate technology in their literacy teaching. In D. L. Schallert, C. M. Fairbanks, J. Worthy, B. Maloch, & J. V. Hoffman (Eds.), 51st Yearbook of the National Reading Conference (pp. 298 – 309). Oak Creek, WI: National Reading Conference.
- McPherson, S. Wang, S-K., Hsu, H-Y. & Tsuei, M. (2007). New literacies instruction in teacher education. *TechTrends*, 51 (5), 24-31.
- Mosley, M. R. (2007). *Learning to teach literacy in a teacher education program: Integrating multiple frameworks to become a new literacies teacher*. Unpublished doctoral thesis, Washington University.
- NCTE (2008). (National Council of Teachers of English). The NCTE definition of 21st century literacies. Retrieved 18.06.2012, from <http://www.ncte.org/positions/statements/21stcentdefinition>.
- Neilsen, A. R. (1989). *Critical thinking and reading: Empowering learners to think and Act*. Illinois: The National Council of Teachers of English.
- Nilson, L.B. (2003). *Teaching at its best: A research based resource for college instructors*. M.A: Anker Publishing Company.
- Özdemir, E. (2000). *Eleştirelokuma*. Ankara: BilgiYayınevi.
- Özensoy, A. U. (2011). The effects of the social studies course organized according to critical reading, on students' critical thinking skills. *Mersin Üniversitesi Eğitim Fakültesi Dergisi*, 7(2), 13-25.
- Patersson, R. (1996). *Verbo-visual communication*. In T. Velders (Ed.), *Multimedia education in praxis: selected readings* (pp. 11-15). Deventer, Netherlands: International Visual Literacy Association.
- Probert, E. (2009). Information literacy skills: Teacher understandings and practice. *Computers & Education*, 53(1), 24 – 33.
- Reinking, D. (1994). *Electronic literacy: perspectives in reading research*. ERIC.
- Risko, V. J. (2012). Celebrating teachers: Multiple literacies, multiple learnings. *Reading Today*, 29(5).
- Sadioğlu, Ö. & Bilgin, A. (2008). İlköğretim öğrencilerinin eleştirelokuma becerileri ile cinsiyet ve anne-baba eğitimi arasındaki ilişki. *İlköğretim Online*, 7(3), 814-822, 2008.
- Sever, S. (2009). Okuma kültürü dindirmesürecinde temel sorunlar ve çözüm önerileri, II. Uluslararası Türkçenin Eğitimi-Öğretimi Kurultayı Açılış Metni. Retrieved 17 February 2014, from <http://www.egitimsenistanbul7.org/media/1321394190.pdf>
- Siegel, M. A. & Wissehr, C. (2011). Preparing for the plunge: Preservice teachers' assessment literacy. *Journal of Science Teacher Education*, 22(4), 371-391.
- Spiropoulou, D., Triantafyllia, A. Kontaxaki, S. & Sarantis, B. (2007). Primary teachers' literacy and attitudes on education for sustainable development. *Journal of Science Education and Technology*, 16(5), 443 – 450.
- Stables, A. Martin, S. & Arnhold, G. (2004). Student teachers' concepts of literacy and numeracy. *Research Papers in Education*, 19(3), 345-364.
- Thomas, A. M. (1994). Definitions and evolution of the concepts. In M. C. Taylor & J. A. (Eds.), *Draper adult literacy perspectives*. (pp.3-13). Florida: Krieger Publishing Company.
- Topçuoğlu Ünal, F. & Sever, A. (2013). Sense-efficacy perceptions of Turkish teacher candidates' for critical reading. *Journal of Language and Literature Education*, 2(6), 33-42.
- Warren, F. C. & Kasbohm, K. E. (2004). Information literacy in teacher education: A collaborative model. *The Educational Forum*, 69 (1), 44-52.
- Wolf, W., Huck, C.S., King, M.L., & Ellinger, B.D. (1967). Critical reading ability of elementary school children. Retrieved 16 May 2017, from <http://files.eric.ed.gov/fulltext/ED014407.pdf>
- Yeo, M. (2007). New literacies, alternative texts: Teachers' conceptualisations of composition and literacy. *English Teaching-Practice and Critique*, 6 (1), 113 – 131.