Teaching and Learning Conceptions of Pre-service English Language Teachers

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Abstract

In this research, pre-service English language teachers' teaching and learning conceptions were explored with regards to gender and grade level. A total of 227 pre-service English language teachers studying at a state university in Turkey participated in the study. Data were collected through "The Teaching and Learning Conceptions Questionnaire (TLCQ)" and analysed quantitatively. Results showed that pre-service English language teachers have higher level of constructivist conception when compared to traditional conception. In addition, a statistically significant difference was detected between the participants' constructivist conceptions and their gender, in favour of females. Also, the participants traditional conceptions differed significantly based on grade level with lower-level participants having higher level of traditional conception. The study concluded with the discussion of the results in relation to the earlier research and offered some pedagogical implications and suggestions. This study attempts to be helpful for English language education policy-makers, teacher educators, teachers, and material designers.

Keywords: English Language Teaching (ELT), Teaching and Learning Conceptions, Constructivist Approach, Teacher Education

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INTRODUCTION

Teaching and learning conceptions refer to teachers' beliefs related to their teaching and learning preferences along with roles of teachers and students (Chan & Elliot, 2004). There are generally two opposing conceptions about teaching and learning in the literature that are traditional and constructivist conceptions (Aypay, 2011; Chan & Elliot, 2004; Schunk, 2008). Traditional conception promotes a teacher-centered educational environment where the primary role of teacher is to present the topic and provide information to students (Cheng et. al., 2009). Rather than discoverer of knowledge, students are regarded as receivers of knowledge provided by teacher, without questioning it (Senemoğlu, 2004). Therefore, teachers are seen as the only authority in the classroom who control students (Brooks & Brooks, 1999). In traditional approach, the best teaching method is 'lecture method' as it provides as much information as possible (Chan & Elliot, 2004). Teachers generally stick to a specific course book, and they mostly use drilling and practice method (Prawat, 1992). Students are expected to be quiet and follow what the teacher instructs. In such classes, instead of meaningful and contextual learning, rote-learning occurs (Baş & Beyhan, 2013).

In traditional language learning environment, teachers are regarded as the knowledge holder who transmit it with the help of lectures and textbooks. Language teachers present the topic to the whole class, instead of using group work or pair work activities. In traditional ELT classrooms, the focus is mostly on grammar, vocabulary, mechanical drills, reading literary works, writing prescribed essays, translation, and spelling (Agola, 2004; Crandall, 1997; Larsen-Freeman, 2000). As the focus is on the structure of language, grammar rules and vocabulary items are memorized by the learners. In these classrooms, correctness is more important than meaning (Demirel, 2003; Reinfried, 2000; Richards & Rodgers, 2007). Since the language is not taught by using visuals and in a meaningful context, there is no connection between the new information and the previous one. Therefore, language learners have difficulty in making the knowledge concrete for them and engaging in the lesson (Gül, 2016; Kavanoz, 2006). Even though an advanced knowledge of grammar rules and words, language learners experience problems when listening and speaking in a communicative context (Büyükduman, 2005; Gül, 2016; Kırkgöz, 2009).

Contrary to traditional conception, the constructivist conception advocates a learner-centered and active learning environment where learners construct their own knowledge (Howard et al., 2000; Mayer 2004; Piaget, 1973). Without adhering to any specific person or doctrine, learners are expected to be responsible for their learning. Learners do not believe everything they hear; they always question the knowledge and make research in pursuit of truth (Chan & Elliot, 2004). Teachers act as facilitators and encourage students to make research, explore, discuss and express their ideas freely (Chan & Elliot, 2004; Dunlop & Grabinger, 1996; Vygotsky, 1978). Rather than using only drill and practice activities, teachers employ discussion, problem solving, task-based, and collaborative activities (Chan & Elliot, 2004; Tam, 2000). Teachers are aware of the fact that each student is unique, so they teach by paying attention to individual differences. Teachers understand the feelings of the students, respect students' ideas, and make students feel important by valuing their ideas (Brooks & Brooks, 1999; Chan & Elliot, 2004).

Principles of constructivist conception in language teaching include intercultural awareness, creativity, autonomy, learning awareness, content awareness, real and complex situations, and collaborative learning (Aljohani, 2017; Reinfried, 2000). One of the basic premises of constructivist language teaching is its 'action-orientedness'. Main components of action-oriented method involve cooperative learning (e.g., pair work, group work), project-based learning, theme-based learning, learning by teaching, peer learning and individualisation of learning (Aljohani, 2017; Kaufman, 2004; Nikitina, 2010). Another important feature of constructivist language learning is 'content-orientedness' which promotes that acquiring a language is more effective in authentic and complex learning situation (Oxford, 1990; Reinfried, 2000). Thus, language teaching techniques and activities are designed and utilized in a way that will enable students to use language in authentic, pragmatic and functional way (Demircan, 1988; Gül, 2017; Güneş & Karaazmak, 2017). In constructivist language classrooms, students are expected to be proactive and shape knowledge according to their own

understanding, rather than passively absorbing it (Aljohani, 2017; Marlowe & Page, 2005). Language learners engage in critical thinking, investigating and solving real-life problems, collaborating with their peers, developing models, diagrams and projects, discovering, writing articles, journaling and so on (Aljohani, 2017; Howard et al., 2000). In constructivist conception, the ultimate goal is to equip students with the necessary skills to use the language effectively outside the class. Hence, less attention is paid to grammatical rules and there is more focus on fluency than accuracy in order to make students use language in a meaningful way (Crandall, 1997; Gül, 2016; Nunan, 2000). Moreover, students are encouraged to be autonomous learners and use their own learning strategies during their language learning experience (Brooks & Brooks, 1999; Marlowe & Page, 2005; Nunan, 2000; Piaget, 1973).

Since 2005, there is a transition from traditional to constructive approach in education. Likewise, in the field of ELT, constructivist approach is highly valued and promoted (Aljohani, 2017; Gül, 2016; Kırkgöz, 2009; Kavanoz, 2006). Especially, the emergence of content-based pedagogical paradigms has opened up new opportunities for language teaching and learning (Kaufman, 2004). The recent literature has revealed that constructivist way of teaching and learning English is more effective and beneficial compared to the traditional way (Al Muhaimeed, 2013; Nikitina, 2010; Sengupta, 2015). In this respect, English language teachers are expected to adopt a constructivist approach by creating a learner-centered class environment, encouraging students to construct their own knowledge, facilitating students' learning, respecting individual differences, and supporting learner autonomy.

In the literature, teaching and learning conceptions of elementary school teachers (Baş, 2014), primary school teachers (Engin & Daşdemir, 2015), and English language teachers (Mardiha & Alibakhshi, 2020) were explored in the context of constructivist and traditional approaches. In addition, a variety of studies investigated teaching and learning conceptions of pre-service teachers from different departments in Turkey (Aydın et al., 2015; Aypay, 2011; Baş & Beyhan, 2013; Bıkmaz, 2017; Oğuz, 2011; Şahan & Terzi, 2015; Şahin & Yılmaz, 2011) and around the world (Chan et al., 2007; Löfström & Poom-Valickis, 2013; Tang et al., 2012). Although there is a plethora of research on teaching and learning conceptions of teachers and pre-service teachers from different fields, there is a lack of research investigating pre-service English language teachers' teaching and learning conceptions within the context of traditional and constructivist approaches. Therefore, it has been deemed important to investigate the teaching and learning conceptions of pre-service English language teachers in Turkey as it will shed light on their teaching behaviours in the classroom and how they will teach in the future.

Within this background, the primary purpose of this study is to find out the teaching and learning conceptions of pre-service English language teachers. The secondary purpose is to determine whether the participants' teaching and learning conceptions differ based on their gender and grade. To this end, this study seeks answers to the following research questions:

- 1. What are the teaching and learning conceptions of pre-service English language teachers?
- **2.** Do pre-service English language teachers' conceptions of teaching and learning show a significant difference according to their gender and grade?

METHODOLOGY

Research design

In this research, from descriptive research methods, survey method was used. Survey method is used to determine perceptions, actions, and beliefs of people as well as to identify the relationship between different variables and make predictions (Christensen, Johnson & Turner, 2015). It is a cross-sectional survey study adopting a quantitative methodology.

Participants

For the selection of the participants, convenience sampling method was used. The sample of the study consisted of 227 pre-service English language teachers studying at a state university in Turkey, who volunteered to take part in the study. A consent form was received from the participants indicating that they voluntarily participated in the study. Participants' demographic information is provided below:

Table 1 Demographic information of the participants

Variables		f	%	Total	
Gender	Females	155	68.3	227	
	Males	72	31.7		
Grade	1 st grade	47	20.7	227	
	2 nd grade	78	34.4		
	1 st grade 2 nd grade 3 rd grade	51	22.5		
	4 th grade	51	22.5		

Data Collection

This study adopts a quantitative approach for the data collection. Data were collected through "The Teaching and Learning Conceptions Questionnaire (TLCQ)" which was developed by Chan and Elliot (2004) and adapted to Turkish by Aypay (2011).

For the adaptation of the TLCQ scale, translation and back-translation method was employed by Aypay (2011). After confirming that there was no difference between the meanings of the instruments, validity and reliability studies were conducted. A confirmatory factor analysis indicated an acceptable fit (RMSEA= .067). Cronbach reliability coefficient for the whole instrument was .71, while sub-scale reliabilities were reported as .88 for the constructivist conception and .83 for the traditional conception (Aypay, 2011). In the current study, the Cronbach alpha coefficient for the overall instrument was calculated as .74, while it was .78 for constructivist conception and .84 for traditional conception.

The scale consists of 30 five-point likert-type items ranging from 1= Strongly Disagree to 5= Strongly Agree. The scale includes two sub-dimensions (1) Constructivist conception consisting of 12 items and (2) Traditional conception consisting of 18 items. There are not any reverse-scored items in the scale. Participants do not receive a total score from the overall scale. The higher the score they get from any sub dimension, the higher their teaching and learning conceptions for that particular dimension.

Data Analysis

Before the analysis of the data, test of normality was conducted to determine if the data were normally distributed. Inspection of mean scores, trimmed mean scores, skewness/kurtosis values, and Histogram and Normal Q-Q Plots revealed that the data were normally distributed (Pallant, 2010). Therefore, parametric tests were calculated for the analysis of the data. Data were analysed by using SPSS (Statistical Package for the Social Sciences) 26.0 software.

In order to determine pre-service English language teachers' teaching and learning conceptions, descriptive statistics were calculated. Secondly, to find out whether there is a significant difference between the participants' teaching and learning conceptions and their gender, an independent samples t-test was conducted. Lastly, to determine if the participants' teaching and learning conceptions differ based on their grade levels, a one-way between groups ANOVA test was used. For the significant F values, the Bonferroni test was used to determine the source of significance.

FINDINGS

RQ1. What are the teaching and learning conceptions of pre-service English language teachers?

In order to answer the first research question, descriptive statistics were used. As Table 2 shows, the mean score for the constructivist conception was M=4.39 (SD=.49). This finding reveals that the pre-service English language teachers highly adopt constructivist conception. On the other hand, the mean value for traditional conception was M=2.75 (SD=.59), indicating that pre-service English language teachers prefer constructivist approach over the traditional approach.

Table 2 Descriptive statistics for teaching and learning conceptions of participants

	N	M	SD
Constructivist	227	4.39	.49
Traditional	227	2.75	.59

RQ2. Do pre-service English language teachers' conceptions of teaching and learning show a significant difference according to their gender and grade?

To determine whether the participants' conceptions of teaching and learning differ significantly based on their gender, an independent samples t-test was conducted. As Table 3 indicates, there was not a significant difference in the pre-service English language teachers' traditional conceptions for females (M=2.71, SD=.59) and males (M=2.81, SD=.60; t (227) =-1.20, p=.23, two-tailed). On the other hand, there was a significant difference in the participants' constructivist conceptions for females (M=4.44, SD=.50) and males (M=4.26, SD=.47; t (227) =2.55, p=.01, two-tailed), with a moderate effect size (Cohen's d=.37, Cohen, 1988).

Table 3 T-test results based on gender

		N	M	SD	t	р
Constructivist	Females	155	4.44	.50	2.55	.23
	Males	72	4.26	.47	2.55	
Traditional	Females	155	2.71	.59	1.20	01
	Males	72	2.81	.60	-1.20	.01

To scrutinize if there is a difference participants' conceptions of teaching and learning based on their grades, a one-way between-groups ANOVA test was conducted. As indicated by Table 4, there was not statically significant difference at the p<.05 level in constructivist conceptions of the participants based on their grades. However, there was a statistically significant difference at the p<.01 level in traditional conceptions of the participants for four different grades; F (3, 223) =7.791, p=.00. The effect size was calculated as medium (eta squared = .09). Post-hoc comparisons using the Bonferroni test indicated that the mean score for first graders (M=3.06, SD=.59) was significantly different from second graders (M=2.69, SD=.57) and fourth graders (M=2.51, SD=.55) Third graders (M=2.78, SD=.57) did not differ significantly from first, second, or fourth graders.

Table 4 One-way between-groups ANOVA test results based on grade

		Sum of Squares	df	Mean Square	F	р	Group Differences
	Between Groups	.448	3	.149	.609	.610	none
Constructivist	Within Groups	54.712	223	.245			
	Total	55.160					
Traditional	Between Groups	7.646	3	2.549	7.791	.000	1 st graders> 2 nd graders, p<.0
	Within Groups	72.954	223	.327			1 st graders> 4 th graders, p<.0
	Total	80.600					

DISCUSSION AND CONCLUSION

This study was designed to explore the teaching and learning conceptions of pre-service English language teachers and determine whether their conceptions differ based on gender and grade levels. The sample of the study consisted of 227 pre-service English language teachers who study at a state university in Turkey. Data were collected through "The Teaching and Learning Conceptions Questionnaire (TLCQ)" which was developed by Chan and Elliot (2004) and adapted into Turkish by Aypay (2011).

According to results of the analyses, pre-service English language teachers have a high level of constructivist conception while they possess a lower level of traditional conception. Therefore, it could be postulated that pre-service English language teachers prefer constructivist approach over the traditional approach in their teaching and learning process. This finding is broadly consistent with a large number of earlier studies (Aydın et. al., 2015; Aypay, 2011; Bıkmaz, 2017; Chan et al., 2007; Cheng et al., 2009; Engin & Daşdemir, 2015; Şahan & Terzi, 2015; Şahin & Yılmaz, 2011; Mardiha & Alibakhshi, 2020; Oğuz, 2011; Tang et al., 2012) which revealed that teachers/pre-service teachers highly adopt constructivist conception compared to traditional conception. A possible explanation for this result might be the reflection of the curriculum development based on the constructivist learning approach in the Turkish Education System in 2005-2006 academic year. It can be deduced that, the curriculum and practices in teacher education faculties positively influenced beliefs of pre-service English language teachers regarding the constructivist conception.

Another result of the study was that there was a significant difference between the participants' constructivist conceptions and their gender; females possessing slightly higher levels of constructivist teaching and learning understanding than males. On the other hand, traditional conceptions of the participants did not differ significantly in terms of gender. This finding matches those found in earlier studies. For example, Aypay (2011) also found a significant differentiation in favour of female pre-service teachers in constructivist conception. Likewise, a number of studies detected a statistical difference that male teachers/pre-service have a higher level of traditional conception than their female counterparts (Aypay, 2011; Baş, 2014; Oğuz, 2011; Şahan & Terzi, 2015). It can therefore be assumed that male participants prefer a more traditional approach when compared to females; while female participants hold a higher level of constructivist conception. According to Oğuz (2011) this difference might stem from the educational experiences of the males in the family and at school along with the characteristics of the socio-cultural environment in which they grew up. The socio-cultural environment might have developed more rigid and authoritarian attitudes in males than females.

Lastly, while there was not statically significant difference in constructivist conceptions of the participants based on their grades, a significant difference was detected in traditional conceptions for first, second and fourth graders. It was revealed that, the traditional views of 1st year pre-service teachers were higher than 2nd graders and 4th graders. This finding is in agreement with the studies revealing that teacher candidates studying in the lower-level class are closer the traditional conception while those studying in the upper-level classroom are more inclined to the constructivist conception (Aydın et al., 2015; Aypay, 2011; Bıkmaz 2017; Lamote & Engels, 2010; Löfström & Poom-Valickis, 2013). Pre-service teachers' starting teacher education programs with a high traditional view can be explained by the former educational experiences and practices that are based on teacher-centered and traditional approach (Bıkmaz, 2017). As their grade level increases, it is expected that they will be closer to the constructivist conception as a result of teaching and learning practices and experiences at the faculty (Aydın et al., 2015; Tang et al., 2012). The fact that pre-service teachers take courses related to field education, teaching professional knowledge and teaching practice in the third and fourth years of teacher education programs may also explain the significant difference between the averages (Löfström & Poom-Valickis, 2013; Tang et al., 2012). In this context, it can be implied that education and training activities at the faculty reduce students' belief in the effectiveness of traditional conceptions in learning and teaching (Aypay, 2011).

Overall, the findings of the current study are mostly in line with the previous studies regarding teaching and learning conceptions of teachers/pre-service teachers. Pre-service English language teachers' conceptions can give important clues in explaining their teaching behaviours in the future. In this context, it can be assumed that the result of the research is positive for pre-service English language teachers who will be the implementers of the program in the future. In light of the findings, it is suggested that English language education policy-makers, material designers and teacher educators should take into account of constructivist principles while designing teacher education programs. In addition, English language teacher educators should (1) promote pre-service teachers to think about, criticize, discuss and evaluate the practices they or other pre-service teachers prefer in applied and teaching practicum courses, (2) apply constructivist principles in the courses and employ student-centered teaching methods such as cooperative learning, project-based learning, problem-based learning and discussion (3) carry out activities which improve the critical thinking and reflective thinking skills of pre-service teachers, and (4) train teachers who can organize and manage constructivist learning environments for their students.

The present study is limited to the quantitative and self-reported data collected through a likert-type scale. The future studies can employ qualitative data collection techniques such as interviews, focus groups and observations. In addition, the same study can also be reiterated by adopting a mixed and longitudinal method through assessing the teaching and learning conceptions of the pre-service English language teachers in each grade level (1st- 4th) to determine the impact of English language teacher education practices more clearly. Moreover, the extent to which teachers/pre-service English language teachers are able to put their understanding into their teaching practices should also be investigated. Lastly, further studies can take this research as a starting point and explore the factors and previous experiences that shape the pre-service English language teachers' conceptions.

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REFERENCES

- Agola, E. (2004). Constructivist Versus Traditional Methods in Language Education. *Perspectives In Learning*, 5(1). 46-49.
- Al Muhaimeed, S. A. (2013). Task-based language teaching vs. traditional way of English language teaching in Saudi intermediate schools: A comparative study. [Doctoral Dissertation, Kent State University]. https://etd.ohiolink.edu/apexprod/rws_etd/send_file/send?accession=kent1383257660&disposition=inline
- Aljohani, M. (2017). Principles of "constructivism" in foreign language teaching. *Journal of Literature and Art Studies*, 7(1).

- Aydın, Ö., Tunca, N., & Alkın-Şahin, S. (2015). Investigation of pre-service science teachers' conceptions of teaching and learning in relation to some variables. *K. Ü. Kastamonu Eğitim Dergisi*, 23(3), 1331-1346.
- Aypay, A. (2011). The adaptation of the teaching-learning conceptions questionnaire and its relationships with epistemological beliefs. *Educational Sciences: Theory & Practice*, 11(1), 7-29.
- Baş, G. (2014). Evaluation of elementary teachers' teaching-learning conceptions from some variables. *Dicle Üniversitesi Ziya Gökalp Eğitim Fakültesi Dergisi*, 22, 18-30.
- Baş, G., & Beyhan, Ö. (2013). Correlation between pre-service teachers' teaching-learning conceptions and their student control ideologies. *H. U. Journal of Education, Special issue* (1), 14-26.
- Bıkmaz, F. (2017). Öğretmen adaylarının öğretme-öğrenme anlayışları ve bilimsel epistemolojik inançlarının araştırılması: Boylamsal bir çalışma. *Eğitim ve Bilim*, 42(189), 183-196.
- Brooks, J. G., & Brooks, M. G. (1999). *In search of understanding: The case for constructivist classrooms* (Revised ed.). Alexandria, VA: Association for Supervision and Curriculum Development.
- Büyükduman, F. İ. (2005). The opinions of elementary school English teachers on the English curriculum for elementary schools. *H. U. Journal of Education*, 28, 55-64.
- Chan, K. W., & Elliott, R. G. (2004). Relational analysis of personal epistemology and conceptions about teaching and learning. *Teaching and Teacher Education*, 20, 817-831.
- Chan, K. W., Tan, J., & Khoo, A. (2007). Pre-service teachers' conceptions about teaching and learning: A closer look at Singapore cultural context. *Asia-Pacific Journal of Teacher Education*, 35(2), 181-195.
- Cheng, M. M. H., Chan, K-W., Tang, S. Y. F., & Cheng, A. Y. N. (2009). Pre-service teacher education students' epistemological beliefs and their conceptions of teaching. *Teaching and Teacher Education*, 25(2), 319-327.
- Christensen, L.B., Johnson, R.B., & Turner, L.A. (2015). *Research methods design and analysis*. (12th ed.). Pearson.
- Cohen, J. (1988). Statistical power analysis for the behavioral sciences. (2nd ed.). Lawrence Erlbaum Associates.
- Crandall, J. (1997). Language teaching approaches for school-aged learners in second language contexts. In G. R. Tucker & D. Corson (Eds.), *Encypclopedia of language and education* (pp. 75-84). Kluwer Academic Publishers.
- Demircan, O. (1988). Foreign language teaching in Turkey: Past to present. Remzi.
- Demirel, O. (2003). Foreign language teaching. Pegem Publications.
- Dunlop, J. C., & Grabinger, R. S. (1996). Rich environments for the active learning in higher education. In G. B. Wilson, (Ed.), *Constructing learning environments: Case studies in instructional design* (pp. 65-82). Educational Technology Publications.

- Engin, G., & Daşdemir, İ. (2015). Evaluation of primary school teachers' teaching-learning conceptions with regards to different variables. *The Journal of Academic Social Science Studies*, 33, 425-432.
- Gül, A. (2016). Constructivism as a new notion in English language education in Turkey [Doctoral dissertation, Kent University]. https://www-s3-live.kent.edu/s3fs-root/s3fs-public/file/Gul%20-%20Abstract.pdf
- Güneş, H. & Karaazmak, F. (2017). Issues related to English language teaching at primary schools and suggested solutions. *The Journal of International Social Research*, 10(54), 731-737.
- Howard, B. C., McGee, S., Schwartz, N., & Purcell, S. (2000). The experience of constructivism: Transforming teacher epistemology. *Journal of Research on Computing in Education*, 32, 455–465.
- Kaufman, D. (2004). Constructivist issues in language learning and teaching. *Annual Review of Applied Linguistics*, 24, 303-319.
- Kavanoz, S. H. (2006). An exploratory study of English language teachers' beliefs, assumptions, and knowledge about learner-centeredness. *The Turkish Online Journal of Educational Technology*, 5(2), 3-9.
- Kırkgoz, Y. (2009). Globalization and English language policy in Turkey. *Educational Policy*, 23(5), 663-684.
- Lamote, C., & Engels, N. (2010). The development of student teachers' professional identity. *European Journal of Teacher Education*, 33(1), 3-18.
- Larsen-Freeman, D. (2000). Techniques and principles in language teaching. Oxford University Press.
- Lau, W. W. F. (2021). Predicting pre-service mathematics teachers' teaching and learning conceptions: The role of mathematical beliefs, mathematics self-efficacy, and mathematics teaching efficacy. *International Journal of Science and Mathematics Education*, 20, 1141-1160.
- Löfström, E., & Poom-Valickis, K. (2013). Beliefs about teaching: persistent or malleable? A longitudinal study of prospective teachers' beliefs. *Teaching and Teacher Education*, *35*, 104-113.
- Mardiha, S. M., & Alibakhshi, G. (2020). Teachers' personal epistemological beliefs and their conceptions of teaching and learning: A correlational study. *Cogent Education*, 7(1).
- Marlowe, B. A., & Page, M. L. (2005). *Creating and sustaining the constructivist classroom* (2nd ed.). Corwin Press.
- Mayer, R. E. (2004). Should there be a three-strikes rule against pure discovery learning? *American Psychologist*, *59*(1), 14–19.
- Nikitina, L. (2010). Addressing pedagogical dilemmas in a constructivist language learning experience. *Journal of the Scholarship of Teaching and Learning*, 10(2), 90-106.
- Nunan, D. (2000). Language Teaching Methodology. Longman.
- Oğuz, A. (2011). Öğretmen adaylarının demokratik değerleri ile öğretme ve öğrenme anlayışları. Değerler Eğitimi Dergisi, 9(22), 139-160.

- Oxford, R. L. (1990). Language learning strategies: What every teacher should know. Newbury House.
- Pallant, J. (2010). SPSS Survival manual: A step by step guide to data analysis using SPSS. (4th ed.). Open University Press.
- Piaget, J. (1973). To understand is to invent. The Viking Press.
- Prawat, R. S. (1992). Teachers beliefs about teaching and learning: a constructivist perspective. *American Journal of Education*, 100(3), 354–395.
- Reinfried, M. (2000). Can radical constructivism achieve a viable basis for foreign language teaching?- A refutation of the 'Wolff-Wendt' theorem. *Erfurt Electronic Studies in English*, Retrieved from http://webdoc.gwdg.de/edoc/ia/eese/artic20/marcus/8_2000.html
- Richards, J. C., & Rodgers, T. S. (2007). *Approaches and methods in language teaching: A description and analysis*. Cambridge University Press.
- Schunk, D. H. (2008). Learning theories: An educational perspective (5th ed.). Pearson Education.
- Sengupta, A. (2015). Generating content through online collaborative writing: a study. In G. Pickering & P. Gunasheka (Eds.), *Innovation in English language teacher education: Selected papers from the fourth International teacher educator conference* (pp. 56-65). British Council.
- Senemoğlu, N. (2004). Gelişim, öğrenme ve öğretim: Kuramdan uygulamaya (10. baskı). Gazi Kitabevi.
- Şahan, H. H., & Terzi, A. R. (2015). Analyzing the relationship between prospective teachers' educational philosophies and their teaching- learning approaches. *Educational Research and Reviews*, 10(8), 1267-1275.
- Şahin, S., & Yılmaz, H. (2011). A confirmatory factor analysis of the teaching and learning conceptions questionnaire (TLCQ). *Journal of Instructional Psychology*, 38(3), 194-200.
- Tang, S. Y. F., Wong, A. K. Y., & Cheng, M. M. H. (2012). Professional learning in initial teacher education: Vision in the constructivist conception of teaching and learning. *Journal of Education for Teaching: International Research and Pedagogy*, 38(4), 435-451.
- Tam, M. (2000). Constructivism, Instructional Design, and Technology: Implications for Transforming Distance Learning. *Educational Technology and Society*, 3(2).
- Turan, M. B. (2019). The relationship between university students' epistemological beliefs and teaching/learning conceptions. *International Journal of Progressive Education*, 15(1), 184-194.
- Vygotsky, L. (1978). *Mind in society: The development of higher psychological processes.* Harvard University Press.