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## **EXAMINING THE IMPACT OF CONSTRUCTIVIST AND REFLECTIVE ELT COURSES ON PRE-SERVICE TEACHERS' BELIEFS ABOUT LANGUAGE LEARNING AND TEACHING: A LONGITUDINAL STUDY**

*Research article*

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# EXAMINING THE IMPACT OF CONSTRUCTIVIST AND REFLECTIVE ELT COURSES ON PRE-SERVICE TEACHERS' BELIEFS ABOUT LANGUAGE LEARNING AND TEACHING: A LONGITUDINAL STUDY

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## Abstract

This longitudinal study considered the constructivist-oriented English Language Teaching (ELT) program in a state university in Turkey as a dynamic variable, and examined its impact on pre-service teachers' beliefs about language learning and teaching over their four-year long program. In the study mixed-methods research design was adopted. The participants were composed of 39 randomly selected volunteer students (24 females and 15 males). As the data collection tool, Beliefs About Language Learning Inventory (BALLI) was utilized, and a semi-structured interview was administered to randomly selected twelve participants. Due to the COVID-19 pandemic, the participants completed Spring semester's course-work in their junior year, as well as all the course-work and practicum in senior year as distant education. Despite the emergency distant teaching and learning context, survey data demonstrated that some beliefs about language learning and teaching changed. Findings from interviews provided evidence supporting the survey results and reasons for the changes. Findings suggested that pre-service ELT programs using constructivist approaches and reflection could change ELT pre-service teachers' beliefs about language learning and teaching even in emergency distant teaching and learning contexts. The findings were informative for developing and designing ELT programs worldwide in face-to-face and in distance education contexts.

*Keywords:* Teacher education, English as Foreign Language (EFL), beliefs, constructivism

## 1. Introduction

Beliefs, which vary based on cultural and contextual factors, have the potential to influence people's experiences, actions and decisions (Atlan, 2006; Bandura, 1986; Nikitina & Furuoka, 2006). Foreign language learners also have preconceived beliefs, assumptions and ideas about language learning (LL) based on their own experiences (Ellis, 1995; Horwitz, 1987; Wenden, 1987). Bailey, Curtis and Nunan (2001) further claim that teachers usually teach the same way they were taught by making reference to their own learning experience. Some of these beliefs could be detrimental to the LL process (Horwitz, 1985). Therefore, it is important for ESL teacher educators to "eliminate any detrimental beliefs in their trainees before they start to teach ESL, to ensure that they do not inform their trainees' teaching." (Peacock 2001, p. 178). However, it has been suggested that beliefs are "generally characterized as well entrenched" (Peacock 2001, p. 180) and some studies indicate they are resistant to change (Agathopoulou, 2010; Çapan, 2014; Johnson, 1994; Pajares, 1992; Peacock, 2001; Richardson, 1996; Tatto, 1998). On the other hand, Williams (1999) state that providing teachers with the link between theory and practice, which should be mediated by reflection in a socio-constructivist approach, may change beliefs. Some studies provide evidence supporting this statement (Busch, 2010; Cabaroglu & Roberts, 2000; Cota Grijalva & Ruiz-Esparza Barajas, 2013; Debreli, 2012; Mattheoudakis, 2007; Özmen, 2012; Yuan & Lee, 2014).

The contradictory findings on pre-service teachers' beliefs about LL could be due to the little or no information provided about the program of study and content of English language teaching (ELT) programs in which the studies were conducted (Bramald, Hardman, & Leat, 1995; Mattheoudakis, 2007). Teacher education programs are mostly regarded as a constant rather than as a dynamic variable (Cabarroglu & Roberts, 2000). Therefore, Kavanoz, Yuksel and Tercanlioğlu (2017) argue that "the quality of teacher education programs should be considered as an influential variable that might cause changes in pre-service language teachers' beliefs (p. 119). Furthermore, Clark-Goff and Eslami (2016) suggest researchers to carefully examine how teacher educators organize and facilitate the content of teacher education courses. They say "an in-depth exploration of the practices of the instructors and course components would be a valuable study for informing teacher education programs." (Clark-Goff & Eslami, 2016, p. 32) However, "Little empirical evidence exists in the teacher education literature on the influence of teacher education on teachers' values and beliefs (Tatto, 1998, p. 66).

This paper presents a longitudinal, mixed methods study investigating whether there is a change in EFL pre-service teachers' beliefs about language learning by the end of their teacher education program. The details of the ELT program are provided to explain how the structure and the content of a program may influence beliefs. The present study seeks to enrich and clarify contradictory information in the field and provide implications for the design and content of the current ELT teacher education programs worldwide.

## **2. Literature Review**

Discussion of various terms used and definitions made for beliefs is beyond the scope of this paper. However, it should be stated that in this study, "belief" is defined based on the seminal work of Cabarroglu and Roberts (2000); "a set of conceptual representations which signify to its holder a reality or given state of affairs of sufficient validity, truth or trustworthiness to warrant reliance upon it as a guide to personal thought and action" (p. 388). Furthermore, this study defines change in beliefs as "movement or development in beliefs" (Cabarroglu & Roberts, 2000, p. 389). In the following sections, extant research conducted longitudinally with pre-service ESL teachers are reviewed and constructivist as well as reflective teaching in teacher education is discussed.

### **2.1. Views on pre-service ESL teachers' beliefs in longitudinal studies**

There is an ongoing discussion between two sets of views about the impact of teacher education programs on beliefs. In the first view, transformation of beliefs is considered to be difficult, slow or very slow (Peacock, 2001; Richardson, 1996). One of the longitudinal studies providing empirical support for this position is by Kunt and Özdemir (2010). The researchers aimed to identify possible changes in the beliefs of pre-service English language teachers who took methodology courses at the beginning and end of their teacher education program. The results showed that the participants' beliefs remained constant or changed to a small extent in certain areas. They concluded that methodology courses had a little or no impact on pre-service teachers' beliefs. Peacock (2001), also examined whether the beliefs of 146 ESL pre-service teachers would change during their 3-year study of LL and TESL methodology. Although he reported changes in three key areas, no significant changes were found. Based on these results, Peacock concluded that considerable efforts should be made to eliminate any unrealistic beliefs prospective teachers may hold before they start teaching.

In the second view, transformation of beliefs is considered plausible through pre-service teachers' educational experiences in teacher preparation classes, professional education and practicum (Busch, 2010; Cabarroglu & Roberts, 2000; Cota Grijalva & Ruiz-Esparza Barajas, 2013; Özmen, 2012; Radwan, 2019). One of the longitudinal studies providing evidence to this

view is by Busch (2010). The researcher reported significant changes in pre-service teachers' beliefs over three years (Busch, 2010). The changes were related to the length of time for acquisition, difficulty of language acquisition, the role of culture, the role of error correction, the importance of grammar, and the efficacy of audio-lingual learning strategies. The participants linked the causes of the changes to the content of the course and their experiential activities in the professional field. Mattheoudakis (2007) also investigated the impact of a three-year teacher education programme on 66 pre-service EFL teachers' beliefs about learning and teaching in Greece. Mattheoudakis (2007) explained that the practicum helped the pre-service teachers realize that the classroom reality helped them test their knowledge and become more aware of their personal beliefs about learning and teaching. In other words, unlike Peacock (2001), Mattheoudakis (2007) found a gradual development in the pre-service teachers' beliefs during the programme and suggested that pre-service teachers need opportunities for reflection during the teaching practice. Cota Grijalva and Ruiz-Esparza Barajas (2013) also reported that after completing teaching practice courses pre-service ESL teachers made links between theory and practice and has some changes in their beliefs. They hypothesized that the changes could be due to the teaching preparation received in the program along with the Teaching Practice courses where the pre-service teachers experience and reflect on teaching (Cota Grijalva & Ruiz-Esparza Barajas, 2013).

The studies reported above illustrate the impact of field experience pre-service teachers' beliefs. However, there are also studies, though not too many, that longitudinally investigate the impact of teacher education courses. For example, in their phenomenological study, Kavanoz et al., (2017) aimed to examine the impact of the courses given in the program on altering pre-service teachers' beliefs about learning and teaching a foreign language. The participants were twenty-three first year and twenty-one final year language teacher candidates. The results revealed that "the program created an increase in their awareness and an improvement in their understanding of the processes inherent in foreign language teaching and learning" (Kavanoz et al., 2017, p. 119). They concluded that pre-service teachers' beliefs are not consistent or fixed and reconceptualization of beliefs occurs over time through personal experience.

Finally, in his longitudinal, mixed-method study Özmen (2012) considered the ELT pre-service program as a dynamic variable and investigated the impact of not only the teacher education courses but also the practicum on pre-service ESL teachers' beliefs about LL and teaching for four years. Results show that through the courses in the third and fourth years of the program, participants changed their beliefs about ways of facilitating LL and kind of teacher identity they should develop. Özmen (2012) further reported that engagement in the teaching practicum seemed to have a higher impact on the development of participants' beliefs than courses. Especially, "reflective writing and post-feedback sessions during the practicum were reported to help them build attitudes and actions on a well-established theoretical ground; that is, the practicum actually enabled them to make sense of the theoretical courses such as linguistics, SLA and other applied linguistic courses" (Özmen, 2012, p. 9).

## **2.2. Constructivist approach and reflection in teacher education**

Teacher education programs that embrace constructivist approach provide pre-service teachers with learning opportunities that encourage reflection, dialogues, critical thinking, knowledge ownership, and understanding in context and within learning communities (Black & Ammon, 1992; Cochran, DeRuiter, & King, 1993; O'Loughlin, 1992). Such constructivist-oriented teacher education programs are expected to be more likely to influence teacher change in desired directions. (Tatto, 1998). An indispensable component of constructivist-oriented approach is reflection. It "involves thinking about and critically analyzing our experiences and

actions, and those of our students, with the goal of improving our professional practice. It allows us to adapt general guidelines of learning and teaching to our particular contexts and disciplines, and to our own particular teaching strengths and preferences.” (McLean, 2007, p. 5.9). Researchers suggest that helping pre-service teachers reflect on their beliefs and make connections between their beliefs and their practices may be important in changing their beliefs (Cota Grijalva & Ruiz-Esparza Barajas, 2013; Kavanoz et al., 2017; Mattheoudakis, 2007; Özmen, 2012; Yuan & Lee, 2014). Vartuli (2005) argues that “Students and teachers have prior beliefs ... based on their experiences, knowledge, and values. These beliefs are often unconsciously held assumptions about children, classrooms, and content to be taught. To become explicit, they must be the subject of reflection” (p. 82). Therefore, Williams (1999) recommends teacher educators to connect theory with practice through reflection within a socio-constructivist view of learning context, to help learners reshape or construct new beliefs. This way, prospective teachers may become more receptive to new information about language teaching even though the new information presented are not in consonance with the student’s own experience as a language learner (Horwitz, 1985).

Studies conducted in ESL teacher education programs focusing on reflective teaching report positive findings on pre-service ESL teachers’ beliefs about LL and teaching (Farrell, 1999; Camacho, Durán, Albarracin, Arciniegas, Martínez, & Cote, 2012). For example, Farrell (1999) conducted a study in Singapore to understand five pre-service teachers’ beliefs when teaching grammar. He found that through the reflective process participants became more aware of their past influences, indicating reflection as a powerful method of shaping their own development as teachers. In another study, Camacho and her colleagues (2012) conducted a study with five foreign language pre-service teachers. The study aimed understanding how reflection helped them throughout the practicum. They found that reflection gave participants an opportunity to analyze their actions and how they can change their way of teaching.

The studies reported above used reflection mostly during the practicum phase of the teacher education process. However, as Johnson (1994) suggests, teacher education courses must create opportunities for prospective teachers to explore their beliefs about LL and teaching. Therefore, the implementation of reflection while taking teacher education courses might also influence beliefs. Despite the potential that teacher education programs have in changing pre-service teachers’ beliefs, this potential remains under-researched (Bernat & Gvozdenko, 2005; Peacock, 2001). Therefore, there is a need for empirical evidence showing the influence of teacher education courses on pre-service teachers’ beliefs and whether these beliefs can be molded in time (Crhová & Gaona, 2014; Tatto, 1998). There are limited number of studies, if any, that investigate change in pre-service teachers’ beliefs about LL longitudinally, consider teacher education program as a variable, rather than a constant, and examine impact of constructivist-oriented teacher education courses and reflection on pre-service teacher’ beliefs. The goal of this longitudinal study was to explore whether pre-existing beliefs held by ELT pre-service teachers changed by the end of their four-year long teacher education program and if they changed, what pre-service teachers consider as the reasons of such changes. This study examined the following research questions;

- 1) Do pre-service teachers’ pre-existing beliefs about second language learning and teaching change after the four-year ESL teacher education program?
- 2) If there was a change in pre-service ESL teachers’ beliefs about second language learning and teaching, what pre-service teachers considered as the reasons of such changes?

### 3. Methodology

To answer the research questions, a longitudinal, mixed-methods study was designed. “Mixed methods research provides more evidence for studying a research problem than either quantitative or qualitative research alone” (Creswell & Plano Clark, 2011, p. 12). Mixed methods study also increases the reliability of the findings as qualitative data can help explain quantitative results (Cumming, 2004; Lazaraton, 2000). In this study, the interviews served as a qualitative tool for not only data triangulation but also providing explanations for the results the survey data presented. The hypothesis was that a constructivist-oriented teacher education program, emphasizing participatory learning and reflection, would influence pre-service ESL teachers’ beliefs.

#### 3.1. Setting

The study was conducted at a state university located in the western part of Turkey. Similar to all the other universities in Turkey, this university follows a national curriculum. Pre-service ESL teachers have to take courses, worth 240 credits. Some courses are related to LL and teaching as well as literature, while others are general educational courses. Despite adhering to the same national curriculum, the courses within the curriculum may be implemented in various ways based on the teaching and learning approaches embraced by the ELT teacher educators. The core ELT courses in this study were taught by two faculty members who earned their both masters and doctoral degrees from the U.S. and are specialized in TEFL. Following the general trends in teacher education worldwide, the constructivist language teaching policies such as Common European Framework of Reference for Languages, as well as the constructivist theories that inform the national K-12 English curriculum, these instructors designed their courses based on the constructivist theory. Constructivists consider teachers as facilitators and students as the center of learning. They focus more on students’ competencies that are required in the 21<sup>st</sup> century, such as critical thinking, problem solving, communication, and collaboration (Ananiadou & Claro, 2009 as cited in Inayati & Emaliana, 2017).

While working with the cohort that participated in the study, the instructors taught the following obligatory courses; Listening and Pronunciation I&II, Oral Communication Skills I&II, Language Acquisition, Teaching English to Young Language Learners I&II, Teaching Language Skills I&II, ELT Methodology I&II, and Assessment and Evaluation in ELT. They also taught the following elective courses; Materials Evaluation and Development in ELT, Educational Technologies in Teaching of English, New Approaches in ELT, Teaching English to Adults, and Reading Aloud to ELLs. Instead of giving mid-term and final exams, both instructors required completion of various experiential tasks to successfully complete the courses. For example, pre-service teachers were assigned as discussion leaders to discuss weekly course readings with their classmates under the supervision of the instructors. This way, they were able to link theoretical information to their own experiences and beliefs. They were asked to watch professionally and academically prepared videos on language teaching and analyze them. Following the videos, they were required to do micro-teachings. In order to help pre-service teachers to become familiar with the national curriculum before their practicum in senior year, they were required to prepare lesson plans for their micro-teachings based on the national K-12 English curriculum. The essential part of the micro-teachings was designing student-centered and communicative-oriented lessons by creating their own material or activities, rather than using available language teaching materials such as course books. They presented at least ten micro-teachings throughout their ELT program, which were recorded as video, and received feedback from both their peers and instructors. Furthermore, after each micro-teaching, they were required to write a reflective narrative about their teaching after watching their own micro-teaching video by answering some leading questions such as

“What do you think was the most effective part of the lesson?”, “What did you find most challenging about this lesson?”, “Which areas need improvement/modification to improve your planning and teaching?”, “What is your goal for the next lesson?”

STs in teacher education programs do practicum in their junior year in a K-12 government school. In the first semester of their practicum, they only observe students, teachers and the school system. They narrate their observations and discuss them with their teacher educators. In the second semester, STs start teaching every week for one course hour (40 or 45 minutes) within the guidance of their mentor teacher working as an English teacher in the practicum school. Students prepare lesson plans before their teaching and they write reflections after their teaching. The academic faculty observes each ST twice during the semester and gives feedback in the real K-12 teaching context. However, the cohort in this present study had to complete not only their Spring courses in their junior year but also their one-year practicum in senior year completely as distant education because face-to-face education ceased due to the Covid pandemic. During the distant education, they continued doing their micro-teaching both for their courses and practicum online, and continued to receive feedback from their teacher educators.

### **3.2. Participants**

The participants of the study were volunteer students who were selected randomly in the ELT program. Their age ranged from 17 to 47. There were 24 females and 15 males, majority of whom were graduates of Anatolian High Schools. For their reasons of studying English, 17 participants indicated interest in the English culture, 18 participants indicated future career, and 4 participants indicated both. Out of 45, 39 pre-service teachers participated in the study. Similar to the participants in Özmen’s (2012) study, participants in this present study came mainly from a teacher-centered, grammar-based and exam-oriented school system. In order to be accepted to an ELT program, they took a national standardized exam which included 80 multiple-choice test items which assessed only grammar and academic vocabulary knowledge with some sub-skills of reading. As a result, most students entered the ELT program with limited speaking, listening and writing skills.

### **3.3. Instruments and Procedures**

#### **3.3.1. Beliefs about Language Learning Inventory (BALLI)**

For the quantitative part of the study, participants responded to BALLI (Horwitz, 1987) as pre- and post-survey. BALLI is a self-report inventory and includes 34 items to investigate different learner beliefs which are grouped in five thematic areas: foreign language aptitude, the difficulty of language learning, the nature of language learning, learning and communication strategies and motivations and expectations. A couple of items concerning language and nationality were modified for use in Turkey. The items of the inventory are scored on a five-point Likert-scale: 1-strongly disagree, 2-disagree, 3-neither agree nor disagree, 4-agree, 5-strongly agree. However, two items (4 and 14) have different response scales. Cronbach’s alpha coefficient was computed as 0.83 for pre-test results and 0.89 for post-test results. According to Hair, Anderson, Tatham, and Black (1998), the acceptable value of Cronbach alpha is at least .70. Regarding the reliability of BALLI, Nikitina and Furuoka (2006) state that “despite criticisms and doubts regarding the reliability of BALLI, Horwitz’s instrument can be considered to be a suitable tool for conducting research on language learning beliefs in different socio-linguistic settings” (p. 217).

Pre-survey was implemented at the beginning of the Fall semester before 2018 when participants were freshman. Post-survey was implemented towards the end of Spring semester when participants were seniors. IRB approval as well as participant consents were attained for

the post-survey. Before pre- and post-survey, participants were informed that participation in the study was voluntary and would not impact any of their course grades. Participants completed their post-survey in two weeks through an online survey platform because face to face education was suspended due to the COVID-19 pandemic, and courses were continued online.

### 3.3.2 Semi-structured interview

For the qualitative part of the study, a semi-structured interview was conducted after the analysis of pre- and post-survey data with 12 randomly selected participants. The purpose of the interview was to identify the possible influencing factors that caused changes in beliefs from participants' perspectives. Participants were informed about their rights to secure the ethical grounds of the study. Interviews were conducted on different days in online platform as three focus-groups, each group had four interviewees. Each interview lasted 30 minutes on average and was audio recorded. All the interviews were conducted in the interviewees' mother tongue, Turkish, for them to express their views and ideas more precisely and thoroughly (Dörnyei, 2007). The questions in the interviews were related to the items in the questionnaires which demonstrated change in beliefs, and participants were asked for the potential reasons for the changes.

## 3.4. Data Analysis

As the data collected for this study was not normally distributed and the number of participants was only 39, instead of conducting a paired-sample t-test, descriptive statistics such as frequency and percentage was utilized for the analysis. All the items in the inventory were analyzed and interpreted individually because Horwitz (1988) explains that "a single composite score is not derived from the BALLI; rather, individual items yield descriptions of discrete student conceptions of language learning" (p. 284). Therefore, results of this study is shown in tables which report each item based on the percentages of students that agreed or strongly agreed (SA+A), disagreed or strongly disagreed (SD+D), or were neutral (N). Percentages are rounded to the nearest whole number.

For the analysis of the qualitative data, all the recorded interviews were transcribed verbatim and were sent to the participants for member checking. Afterwards, content analysis was conducted for the transcript of each participant (Dörnyei, 2007). Content analysis includes transcribing, coding, looking for patterns, making interpretations, and building theories from the data. Therefore, data from the interviews were coded in an iterative manner through several phases to identify the reasons for the change in participants' beliefs. To enhance the trustworthiness of the findings, another researcher independently analyzed both the survey and interview data.

## 4. Results

Overall results show change in 14 out of 34 items. In the following section, results are reported based on the five themes of the BALLI. Tables are given in each theme to visually summarize the pre- and post-survey percentages. However, only the items demonstrating a large percentage change are explained in detail along with the data attained from the interviews.

### 4.1. Theme 1: Difficulty of Language Learning

Regarding difficulty of LL, there are six items and, as Table 1 illustrates, there is considerable change in five of these items (Item 3, 4, 15, 25, 34) In Item 3, seventy-seven percent of pre-service teachers believed that some languages are easier to learn than others in the pre-test, but in the post-test, ninety percent agreed with this statement. Regarding the beliefs about difficulty of English (Item 4), compared to the pre-test (33%), more participants (49%)

agreed in the post-test that English is an easy language. Interviews with participants show that the changes in Items 3 and 4 are due to the additional foreign languages, either German or French, that participants had to learn in high school and at university. However, they have been learning English since they were in elementary school and for more weekly hours, so they are more exposed to English. They also stated that they learned German or French with the sole purpose of passing the course. However, they are learning English because they are interested in the English culture and have career goals.

Item 15 inquired the necessary time language learners need to speak English well if they study it one hour a day. In the post-test, the participants who believed that it takes 3-5 years increased (36%) compared to pre-test (23%). Interviews revealed that in the post-test more participants decided 3-5 years would be enough to speak English well because in the methodology courses they have learned various methods and approaches that could fasten learning a language. Therefore, they began to believe that if language learners work systematically and use appropriate methods, 3-5 years would be enough to learn a language.

Table 1. *Percentage Analysis of Difficulty of Language Learning*

BALLI Items	A + SA		N		D + SD	
	Pre	Post	Pre	Post	Pre	Post
3. Some languages are easier to learn than others.	77	90	15	10	8	0
4. English is ..... *	(d+e) 33	(d+e) 49	(c) 54	(c) 43	(a+b) 13	(a+b) 8
5. I believe that I will learn to speak English very well.	82	92	18	5	0	3
15. If someone spent one hour a day learning a language, how long would it take them to speak the language very well? **	(d+e) 38	(d+e) 28	(c) 23	(c) 36	(a+b) 39	(a+b) 36
25. It is easier to speak than understand a foreign language.	15	15	33	18	52	67
34. It is easier to read and write English than to speak and understand it.	46	62	23	20	31	18
* (a) A very difficult language (b) A difficult language (c) A language of medium difficulty (d) An easy language (e) A very easy language						
** (a) Less than a year (b) 1-2 years (c) 3-5 years (d) 5-10 years (e) You can't learn a language in one hour a day						

In Item 25, more students disagreed in the post-test (67%) that that it is easier to speak than to understand a foreign language. Finally, most of the participants (64%) found it is easier to read and write English than to speak and understand it (Item 34). In the interviews, participants stated that they did not have many opportunities to speak English in high school because they mostly studied grammar and did reading activities to prepare for the university entrance exam. However, while they were learning German and French at the university, they realized that speaking is a difficult task. Furthermore, while they were doing presentations and micro-teachings in the ELT program, they reported to have difficulty in speaking. Finally, they mentioned that while taking the course on teaching language skills, they became more aware that speaking is a difficult skill to teach and learn, compared to reading and writing.

## 4.2. Theme 2: Foreign Language Aptitude

Table 2 presents the percentages related to the foreign language aptitude component of the BALLI. Majority of the participants believed in both pre- and post-test that; children are better FL learners than adults, there is a special ability for learning a FL, if people already speak a foreign language, it is easier for them to learn another one, and everyone can learn to speak a foreign language. However, most of the participants disagreed with the statements that; people from my country are good at learning foreign languages, people who are good at mathematics or science are not good at learning foreign languages. The participants seemed indecisive about Item 16, I have a special ability for learning foreign languages, and Item 30, people who speak more than one language are very intelligent.

Table 2. *Percentage Analysis of Foreign Language Aptitude*

BALLI Item	A + SA		N		D + SD	
	Pre	Post	Pre	Post	Pre	Post
1. It is easier for children than adults to learn a foreign language.	90	92	5	8	5	0
2. Some people have a special ability for learning foreign languages.	90	87	8	8	2	5
6. People from my country are good at learning foreign languages.	20	8	23	31	57	61
10. It is easier for someone who already speaks a foreign language to learn another one.	80	85	20	13	0	2
11. People who are good at mathematics or science are not good at learning foreign languages.	8	5	10	13	82	82
16. I have a special ability for learning foreign languages.	51	46	31	41	18	13
19. Women are better than men at learning foreign languages.	2	8	31	46	67	46
30. People who speak more than one language are very intelligent.	41	46	28	23	31	31
33. Everyone can learn to speak a foreign language.	82	87	13	5	5	8

Out of nine items in the language aptitude component, there was change in only one item which compared the gender difference in aptitude (Item 19). In the pre-test, sixty-seven percent of the participant agreed that women are better language learners than men, but this percentage decreased to forty-six percent in the post-test. When the reason for such a change is asked, participants stated that before entering in the ELT program, their language classrooms consisted mostly of female students, while science classes mostly had male students. Therefore, they subconsciously thought that women are good at LL. However, after taking courses on language acquisition, they learned that everyone has a specific area in brain that is responsible from LL, and realized that LL is not related to gender but other factors such as interest, motivations, goals to list a few.

### 4.3. Theme 3: Nature of language learning

Results regarding the participants' beliefs about the nature of LL is presented in Table 3. Out of six items, three items remained almost unchanged or changed to a small degree (Items 8, 12, 17), while three items changed considerably (Items 23, 27, 28). Item 23 was related to participant's beliefs about the importance of grammar in learning a language. In the pre-test, forty-four percent of participants considered grammar to be important, but only twenty-three percent agreed with this belief in the post-test. Item 27 inquired beliefs about whether learning a foreign language is different than learning other academic subjects. Twenty-six percent of the participants in neutral position decreased to five percent in the post-test. Participants agreeing with Item 27 increased from seventy-two percent to eighty-five percent. The largest change is observed in item 28, which states the most important part of learning English to be learning how to translate from native language. In pre-test, while forty-six percent of participants agreed with this statement in the pre-test, only thirteen percent agreed with it in the post-test. The percentage of participants who disagreed with this belief increased from twenty-six percent in pre-test to fifty-six percent in post-test.

Table 3. *Percentage Analysis of Nature of Language Learning*

BALLI Item	A + SA		N		D + SD	
	Pre	Post	Pre	Post	Pre	Post
8. It is necessary to know about English-speaking cultures in order to speak English.	72	72	20	23	8	5
12. It is best to learn English in an English-speaking country.	87	90	8	8	5	2
17. The most important part of learning a foreign language is learning vocabulary words.	72	62	18	28	10	10
23. The most important part of learning a foreign language is learning the grammar.	44	23	33	23	23	54
27. Learning a foreign language is different than learning other academic subjects.	72	85	26	5	2	10
28. The most important part of learning English is learning how to translate from my native language.	48	13	28	31	26	56

During the interviews participants explained that in the pre-test the percentage for importance of grammar was higher because in their previous school experiences their teachers focused on teaching of grammar and the exam oriented educational system required learning of grammar. However, participants stated that after taking courses like Teaching English to Young Learners or ELT Methodology, they realized different ways of teaching English such as communication-centered activities and introducing grammar within a context such as songs or reading texts. Furthermore, they learned about importance of other skills such as speaking and listening. After learning about these skills and different methods of learning a language, they stated that learning a language became more meaningful and edutaining. Finally, after learning various edutaining methods through ELT courses and applying these methods in their micro-teachings, the participants considered that learning a language is different than learning other academic subjects.

#### 4.4. Theme 4: Learning and Communication Strategies

Table 4 demonstrates participants' beliefs about learning and communication strategies. Items 18 and 26 are related to learning strategies, while the rest (7, 9, 13,14, 21, 22) are related to communication strategies. Majority of the participants in this study believe it is important to repeat and practice a lot (Item 18) in both pre- (95%) and post-test (92%). For Item 26, which stated the importance of practicing with audio materials, seventy-two percent of the participants agreed with the item at the beginning, but this percentage decreased to fifty-six percent in the post-test. Interviews revealed the reason for the decrease as the availability of various new technologies that could be used to practice English, which they learned during their Educational Technologies in ELT course.

Table 4. *Percentage Analysis of Learning and Communication Strategies*

BALLI Item	A + SA		N		D + SD	
	Pre	Post	Pre	Post	Pre	Post
7. It is important to speak English with an excellent pronunciation.	56	51	39	15	5	34
9. You shouldn't say anything in English until you can say it correctly.	5	3	13	0	82	97
13. I enjoy practicing English with the native speakers of English I meet.	87	87	10	13	3	0
14. It's o.k. to guess if you don't know a word in English.	74	85	18	15	8	0
18. It is important to repeat and practice a lot. *	95	92	3	8	2	0
21. I feel timid speaking English with other people.	44	36	23	15	33	49
22. If beginning students are allowed to make errors in English, it will be difficult for them to speak correctly later on.	44	15	23	18	33	67
26. It is important to practice with cassettes, tape recorders. *	72	56	20	34	8	10
* Beliefs that are related to learning strategies. The rest is related to communication strategies						

Related to the items for communication strategies, there was not much change in Items 13 and 14. However, for other items (7, 9, 21, 22) some change was observed, especially in items 7 and 22. For Item 7, the main change is in participants who had a neutral opinion about the importance of speaking with excellent pronunciation. While 39 percent of the participants was neutral about this belief in the pre-test, only fifteen percent was neutral in the post test. Majority of them changed their state to disagreement (5% in pre-test vs 34% in the post-test). Regarding Item 9, all of the participants who had a neutral state (13%) in pre-test, changed their beliefs to disagreement. Therefore, the disagreement percentage changed from eighty-two percent in the pre-test to ninety-seven percent in the post-test. In the interviews, participants explained the changes in Items 7 and 9 to the fact that in their ELT courses they learned that language is for communication and they realized that many people speak English with an accent. They said "as long as our students can express their thoughts meaningfully and as long as pronunciation

does not interfere with the communication process, perfect pronunciation is not important.” They also stated that when teachers correct students’ pronunciation or do not allow them to speak until they speak correctly, such behavior would negatively impact their motivation and discourage them from learning English.

Item 21 discusses the issue of timidity while speaking English. At the beginning of the ELT program, forty-four percent of the participants reported feeling timid, but in the post-test, thirty-six percent reported feeling timid. The participants stated that they did not have much speaking opportunities during their previous schooling experience, and thus, when they first entered the program, they felt timid about speaking English. However, as they started doing presentations and micro-teachings, their timidity decreased.

The largest change is observed in Item 22, beliefs about corrections. In pre-test, thirty-three percent of the participants disagreed that student errors should be corrected early on, which increased to sixty-seven percent in the post-test. Interviews revealed that at the beginning of the ELT program, participants considered error correction as correcting all the errors. However, after taking ELT courses, they realized that errors related to the topic of the lesson should be given priority for correction. In other words, they became more selective of the errors that should be corrected in order not to impact student learning and motivation negatively. They further stated that correcting all the errors may both discourage students from learning English and create an unnecessary cognitive load.

#### 4.5. Theme 5: Motivation and expectations

Results related to motivation and expectations indicate that participants had positive beliefs about their motivation and expectations when they entered the program, which continued to be stable throughout their teacher education. Only Item 20, inquiring whether speaking English is important for Turkish people, changed slightly. The participants who had a neutral state in pre-test (31%), decreased to eighteen percent. In the post-test, more participants disagreed with the item (20%) compared to the pre-test (7%). Participants who changed their views from neutral to disagreement explained that most Turkish people consider English as a course they should pass.

Table 5. *Percentage Analysis of Motivation and Expectations Component of BALLI*

BALLI Item	A + SA		N		D + SD	
	Pre	Post	Pre	Post	Pre	Post
20. People in my country feel that it is important to speak English.	62	62	31	18	7	20
24. I would like to learn English so that I can get to know its speakers better.	77	85	15	13	8	2
29. If I learn English very well, I will have better opportunities for a good job.	92	95	5	2	3	3
31. I want to learn to speak English well.	95	97	5	3	0	0
32. I would like to have friends whose native language is English.	90	97	8	3	2	0

#### 5. Discussion

It has been known that for teacher education programs, “it is highly important to examine the misconceptions of pre-service teachers and to bring about positive change in their knowledge, attitude, and beliefs” (Clark-Goff & Eslami, 2016, p. 33). In an attempt to bring

about positive change in pre-service ESL teachers' beliefs, this longitudinal mixed-methods study examined the impact of an ELT program, especially the ESL courses designed based on the constructivist approach and reflection, on pre-service teachers' beliefs about LL and teaching. The ELT program, especially the ESL courses, were designed in the light of constructivists-oriented and reflection-based methods. Pre-service teachers prepared at least 10 lesson plans parallel to the national English curriculum, taught at least 10 micro-lessons which were recorded on video, received feedback to each of the micro-teachings they taught, wrote reflections about their teaching after watching their own recorded videos, discussed theoretical work, connected readings to their own beliefs and experiences. As Johnson (1994) suggested, the ESL courses in this study tried to "provide a safe environment for pre-service teachers to discover who they are, what they believe, and how they teach." (p. 451) Furthermore, through watching academically and professionally prepared ELT videos and doing micro teachings, they also provided "preservice teachers with concrete models of alternative instructional practices to observe as well as to experience." (Johnson, 1994, p. 451).

Comparison of percentages between pre- and post-test revealed change in 14 out of the 34 BALLI items. The largest changes were observed in two themes; difficulty of language learning and communication and learning strategies. Interviews were helpful in understanding the reasons for the changes. In difficulty of language learning five out of six items changed. The main reason for these changes were related to the second foreign language the participants learned. They compared English to German or French. This finding provides empirical evidence to arguments by Okay and Balçıkanlı (2017) who stated that their participants might have compared the difficulty of English to their experiences they had while learning French or German. Interviews also indicated that after learning different LL methods and approaches in their ESL courses, the participants began to believe that LL is not difficult.

The second largest change was observed in communication and learning strategies, in which five items out of eight changed. By the end of their ELT program, participants became more aware that the main function of language is communication. They stated in the interviews that as long as students can express their thoughts without distorting the intended message, pronunciation and grammar errors can be ignored. They also stated that errors should be tolerated at times, because if all the errors are corrected, LL would become cognitively overwhelming and boring. Furthermore, similar to what participants in Radwan's (2019) study expressed, fear of making mistakes may hinder speech production and participation in LL activities. An important finding was related specifically to item 18, which is related to the importance of repeating and practicing. Similar to the findings of previous studies (Altan, 2012; Tercanlioğlu, 2005), majority of the participants considered repeating and practicing important. Repetition and practice could be referenced to traditional learning strategies (Tercanlioğlu, 2005). However, interviews indicated that participants considered repetition as a necessity for learning vocabulary and practice for improving communication skills. In other words, rather than supporting behavioristic approach, participants interpreted this statement for achieving success in various language areas and communication skills. Finally, another change was observed in uses of technologies to practice English. At the beginning of the ELT program, similar to previous studies (Tercanlioğlu, 2005), most participants agreed practicing language with cassettes and tape recorders. However, after taking courses on Educational Technologies in ELT course, they have learned more current and edutaining technologies to practice English. Therefore, their response to practicing language with cassettes and tape recorders decreased sharply in the post-survey.

Related to foreign language aptitude, three out of six items changed. The items related to the importance of grammar and translation in learning a language scored high in pre-test. This result from pre-test is not surprising because similar to the participants in extant studies in the

Turkish context (e.g., Özmen, 2012), the participants in this study were coming from transmissive/traditional educational settings that focused on mainly teaching of grammar and vocabulary and practice of reading skills to prepare for standardized exams. However, after taking ESL courses and learning new approaches in ELT, doing micro-teachings and receiving feedback to the application of these new approaches, as well as reflecting on them after watching their own recorded teaching, the participants not only learned but also practiced various methods of teaching a language. This way, they also learned that learning a language is different than studying other academic subjects. This change in the decrease in the importance given to grammar and translation in learning is also observed in the findings of Radwan (2019).

For the foreign language aptitude theme, only the item inquiring if women are better than men at learning foreign languages changed. It is known that pre-service teachers' beliefs are constructed based on their experiences in previous educational settings and personal experiences as language students (Busch, 2010; Johnson, 1994). Similarly, in this study, participants reasoned the initial state of their belief regarding gender difference to their personal experiences in previous educational settings. They stated that in high school, their language classrooms mostly had female students. Therefore, they subconsciously thought that women are good at LL. However, after taking ESL courses, they learned that LL is not related simply to gender, but to other factors such as interest, motivation, goals and more name a few.

The last theme, which had no change, is motivations and expectations. The limited change in this theme is not surprising as participants' background information had indicated at the beginning of the study that they had both integrative and instrumental motivation (Gardner & Lambert 1959). In other words, participants had indicated that they learned English as a foreign language because they had both positive attitudes toward the foreign culture and a desire to participate as a member of it and goal of acquiring language in order to use it for a specific purpose. Throughout the program, their motivation stayed mostly stable.

The results from the five themes indicate that after the four-year long coursework, participants' beliefs about LL and teaching seemed to transform gradually. Similar to findings of Busch (2010), participants in this present study attributed the reasons for changes to; reading materials and content of courses (learning about new technologies used in ELT etc.), experience with ESL students (through doing at least 10 micro-teaching), class discussions/presentations (under the supervision of the course instructor), logical induction leading to new belief (discussion on theoretical work and comparing that information to personal beliefs and experiences), and to concurrent experience studying a foreign language (learning German or French as an obligatory elective course). If the courses were offered simply as an intellectual input, based on knowledge transmission, they would not contribute to pre-service teachers' belief development (e.g., Chin & Benne, 1985; Mattheudakis, 2007; Özmen, 2012).

In addition to the coursework, practicum is an important phase in teacher education programs. A review of 113 studies on practicum experience indicate that activities and goals in diverse practicum settings impact pre-service teachers' teaching competencies and enable gaining familiarity with diverse student groups (Cohen, Hoz, & Kaplan, 2013). Specifically in the ELT field, some studies which evaluated the impact of a course or practicum on beliefs through short-term research designs, report limited change in beliefs after practicum (Agathopoulou, 2010; Çapan, 2014; Johnson, 1994). However, other longitudinally designed studies report changes in beliefs after practicum (Busch, 2010; Debreli, 2012; Cota Grijalva & Ruiz-Esparza Barajas, 2013; Mattheoudakis, 2007; Yuan & Lee, 2014). Some studies further indicate that the most significant change in beliefs occur during or after the practicum, rather

than during course work (Mattheudakis, 2007; Özmen, 2012). In the present study, participants had to complete Spring semester in their junior year and one-year practicum in senior year in online teaching platform due to the Covid pandemic. They were not able to teach for at least four weeks because students did not attend the online English classes. Despite the lack of face-to-face practicum experience, it is still encouraging to see change in participants' beliefs.

Özmen (2012) concludes in his research that “a teacher education program based on a constructivist view of education might have a significant impact on the belief development of the pre-service STs” (p. 11). Williams (1999) also states if pre-service teachers are provided with chances to link between theory and practice, which should be mediated by reflection in a socio-constructivist approach, change can be observed in beliefs. The findings of this present study support these statements. Considering the previous longitudinal studies in the field, this study is important in that it shows that if the ESL courses are designed constructively, use reflection and provide opportunities for practice, even if practicum is completed as distant education, the beliefs of pre-service ESL teachers can still change. Furthermore, contrary to the views which state that teacher education programs are incapable of changing pre-service teachers' beliefs (Peacock, 2001; Tatto, 1998), findings of this study confirm that change in beliefs is possible and does not occur overnight (Cabaroğlu & Roberts, 2000; Kavanoz et al., 2017; Richardson, 1996).

## **6. Implications, Limitations and Suggestions**

This study has some implications for ELT teacher education programs. One of the implications is to design courses based on constructivist-oriented approaches and use alternative assessment tools. If pre-service ESL teachers are given opportunities to discuss theoretical work, make connections to their beliefs and experiences, and have hand-on practice of teaching before their practicum, they can explore and realize any unrealistic beliefs or misconceptions they may hold, and replace them with new information and knowledge. As changing beliefs do not occur overnight, it should be considered as a process and assessment should focus on this learning process. Rather than evaluating the comprehension of theories or methodologies through traditional mid-term and final exams, pre-service teachers should be evaluated through projects, micro-teachings, discussion leading of reading tasks, and presentations to name a few. In other words, alternative assessment tools and tasks should be created to save pre-service teachers from a deeply-situated, exam-oriented habit that are attained from their previous educational experiences.

Another implication is related to the number of students in ESL courses. In order to enable teacher educators to design their courses as described above, classes should not be crowded. Otherwise, there won't be enough time in the curriculum to allow students do presentations, discussions or micro-teachings. Furthermore, alternative assessments will cause an overwhelming amount of work-load for the course instructors. The higher number of pre-service teachers in ESL courses, the more likely it is that the courses will be offered as an intellectual input that is based on knowledge transmission.

Finally, the number of obligatory ESL courses in ELT programs should be increased. For instance, instead of holding courses on translation, communication skills or educational research and methods obligatory, the ESL courses, which were offered as electives such as Materials Evaluation and Development in ELT, Educational Technologies in Teaching of English, New Approaches in ELT, Teaching English to Adults, and Reading Aloud to ELLs could be taught as obligatory courses. The literature courses should also aim informing pre-service ESL teachers about literature can be used to teach English, rather than solely focusing on analysis of a literature piece as it is commonly done in Department of Literature Studies.

As with any research, this study has a few limitations. First, since BALLI is a self-report questionnaire, it is subject to the usual limitations associated with self-report data such as biased-responses. These biased responses may show a more positive perspective than the reality. Participants may also have stated what they thought the teacher educators wanted to hear, or shown what they learned in the course textbooks, whether they believed it or not. Second, the participants in this study were selected from one Turkish University. Therefore, the course-content and -demands may vary in different universities both within Turkey and in other countries. As a result, generalizations of the findings in this study should be made cautiously. Finally, even though the pre-service teachers in this study had more positive views after the coursework, this study did not investigate the long-term effects of the change in their belief. As a result, it cannot be claimed that participants' beliefs have permanently changed. In the light of these limitations, future studies should follow pre-service teachers into their classrooms in order to determine whether constructivist ELT teacher education programs have long-term effects on their beliefs and teaching.

## **7. Conclusion**

The aim of this longitudinal, mixed-methods study was to explore the impact of the ESL courses designed through constructivist approach and reflective teaching on thirty-nine pre-service teachers' belief development. Participants' beliefs were identified in sophomore year, when they entered the program, and in senior year of the program. The teacher education program in this study provided participants with opportunities to discuss theories so that they were able to link theories to their own learning experiences and beliefs. During their ESL core-courses, participants were able to put their theoretical knowledge into practice by doing at least ten micro-teachings informed by current language teaching methodologies. They have also received feedback to their micro-teachings and reflected on their teaching by watching the video recordings of their own micro-teachings. Findings from the survey data reveal that participants' beliefs have changed, indicating more alignment with current research and sound educational practice. Findings from semi-structured interviews explain the reasons for the change as mainly the ESL courses they had taken in the ELT program and the micro-teachings they have done. Teacher education programs should design their courses in ways that allow pre-service teachers discuss LL theories and their own LL experiences, and do multiple micro-teachings based on the current LL methodologies for putting theory into practice.

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