

REPUBLIC OF TURKEY
ÇAĞ UNIVERSITY
INSTITUTE OF SOCIAL SCIENCES
DEPARTMENT OF ENGLISH LANGUAGE TEACHING

**THE RELATIONSHIP BETWEEN UNIVERSITY STUDENTS’
EPISTEMOLOGICAL AND FOREIGN LANGUAGE LEARNING BELIEFS**

THESIS BY
Mehmet Emin MUNİS

SUPERVISOR
Assoc. Prof. Dr. Jülide İNÖZÜ
(ÇUKUROVA UNIVERSITY)

MASTER OF ARTS

TARSUS/MERSİN

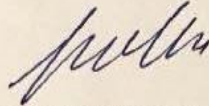
NOVEMBER / 2017

REPUCLIC OF TURKEY

ÇAĞ UNIVERSITY

DIRECTORSHIP OF THE INSTITUTE OF SOCIAL SCIENCES

We certify that thesis under the title of "The Relationship between Epistemological and Foreign Language Learning Beliefs of University Students" which was prepared by our student Mehmet Emin MUNİS with number 20158032 is satisfactory for the award of the degree of Master of Arts in the Department of English Language Education.



Univ. Outside - Supervisor- Head of Examining Committee: Assoc. Prof. Dr. Jülide İNÖZÜ
(Çukurova University)



Univ. Inside - Member of Examining Committee: Assist. Prof. Dr. Kim Raymond HUMİSTON



Univ. Inside - Member of Examining Committee: Assoc. Prof. Dr. Şehnaz ŞAHİNKARAKAŞ

I certify that this thesis conforms to formal standards of the Institute of Social Sciences.



24/ 11 / 2017

Assoc. Prof. Dr. Murat KOÇ
Director of Institute of Social Sciences

Note: The uncited usage of the reports, charts, figures and photographs in this thesis, whether original or quoted for mother sources is subject to the Law of Works of Arts and Thought. No: 5846.

DEDICATION

To my wife, Şeyma, my son, Bünyamin and my daughter, Elif.

ACKNOWLEDGEMENTS

I would firstly like to acknowledge Assoc. Prof. Jülide İNÖZÜ, my advisor, for her continued support, guidance, patience and the substantial feedback she gave throughout the entire process. Her patience is greatly appreciated and the theoretical, practical, and motivational contributions she has made to this study have been priceless.

I would like to thank Assoc. Prof. Şehnaz ŞAHİNKARAKAŞ for her warm support and useful feedback during the lessons of the MA programme. I learnt a lot from her about academic research.

I would like to express my sincerest thanks to my thesis committee member, Assist.Prof.Kim Raymond HUMISTON, for his corrections and valuable feedback. I also wish to thank all the instructors in the M.A. program for every piece of contribution they have made to my intellectual and epistemic growth.

I owe very special and heartfelt thanks to Assist.Prof.Emine GÖZEL from Şırnak University for her helpful suggestions, comments and support.

My heartfelt appreciation goes to Instr. Bilal ALTAN, who has provided emotional support and continuing encouragement.

Finally, I would like to thank the students of Şırnak University who filled in the questionnaires and answered the interview questions sincerely.

Mehmet Emin MUNİS

Mersin/2017

ÖZET

ÜNİVERSİTE ÖĞRENCİLERİNİN EPISTEMOLOJİK VE YABANCI DİL ÖĞRENMEYE İLİŞKİN İNANÇLARI ARASINDAKİ İLİŞKİ

Mehmet Emin MUNİS

Yüksek Lisans Tezi, İngiliz Dili Eğitimi Anabilim Dalı

Danışman: Doç. Dr. Jülide İNÖZÜ

Kasım, 2017, 146 sayfa

Bu çalışmada, üniversite öğrencilerinin epistemolojik ve yabancı dil öğrenimine dair inançları araştırılmıştır. Bu doğrultuda, Şırnak Üniversitesinde okuyan 157 kız 145 erkek olmak üzere 302 birinci sınıf öğrencisi çalışmaya katılmıştır. Nicel veri toplama araçları olarak BALLI ve EBQ anketleri; nitel veri toplamak amacıyla görüşme yöntemi kullanılmıştır. Nicel verilerin analizinde tanımlayıcı istatistikler, yüzdelikler, ortalamalar; öğrencilerin epistemolojik ve yabancı dil öğrenimine ilişkin inançlarının, cinsiyet ve alan değişkenlerine göre karşılaştırılmasında t-Testi; epistemolojik ve yabancı dil öğrenimine dair inançları arasındaki ilişkiyi belirlemek amacıyla Pearson r. Korelasyon Testi kullanılmıştır. Çalışmada, üniversite öğrencilerinin epistemolojik inançların öğrenmenin çaba ve yeteneğe bağlı olduğu alt boyutlarında gelişmiş inançlara sahip oldukları, tek bir doğrunun olduğuna dair inanç boyutunda ise kararsız oldukları tespit edilmiştir. Öğrencilerin yabancı dil öğrenimine ilişkin ise birçok inança sahip oldukları gösterilmiştir. Öğrencilerin epistemolojik ve yabancı dil inançları arasında zayıf fakat anlamlı bir ilişki tespit edilmiştir. Kız öğrencilerin öğrenmenin yeteneğe bağlı olduğuna yönelik olarak erkek öğrencilere göre nispeten daha gelişmiş inançlara, yabancı dil öğrenimine ilişkin ise kız ve erkek öğrencilerin benzer inançlara sahip oldukları bulunmuştur. Sosyal alan öğrencilerinin epistemolojik inançların öğrenmenin çabaya ve yeteneğe bağlı olduğu boyutlarında pozitif bilim alanları öğrencilerine göre nispeten daha gelişmiş inançlara sahip oldukları, yabancı dil öğrenmeye dair inançların öğrenmenin doğası boyutuyla ilgili yine sosyal alan öğrencilerin daha duyarlı oldukları ortaya çıkarılmıştır.

Anahtar Kelimeler: Epistemolojik İnançlar, Yabancı Dil Öğrenimine İlişkin İnançlar

ABSTRACT

THE RELATIONSHIP BETWEEN UNIVERSITY STUDENTS' EPISTEMOLOGICAL AND FOREIGN LANGUAGE LEARNING BELIEFS

Mehmet Emin MUNİS

Master of Arts, Department of English Language Education

Supervisor: Assoc. Prof. Dr. Jülide İNÖZÜ

November, 146 Pages

In this study, the relationship between epistemological and foreign language learning beliefs of university students in a Turkish university context was investigated. The study also analysed the students' beliefs regarding gender and field of study variables. In this regard, 157 males and 145 female freshmen studying at Şırnak University participated in the study. To collect data, the EBQ and the BALLI questionnaires and interviews were used. Descriptive statistics, frequencies, means, independent sample t-test to reveal the differences between the variables, and Pearson correlations were used to analyse the relationship between the participants' epistemological and FLL beliefs, while coding and content-analysis techniques utilized to analyse qualitative data. The results revealed that university students had sophisticated epistemological beliefs in terms of learning depends on effort and ability dimensions of the EBQ, while they were uncertain about one single truth dimension. The study also revealed that the participants held various beliefs related to foreign language learning. There was a significant and slight relationship between students' epistemological and FLL beliefs. The students' epistemological beliefs differed slightly regarding learning depends on ability dimension of the EBQ in favour of females, but they did not differ in terms of their FLL beliefs. The students of social science had more sophisticated beliefs in terms of learning depends on effort and ability dimensions than the students of hard science, but they had similar beliefs concerning one single truth dimension of the EBQ. Their beliefs only differed in terms of the nature of language learning dimension of the BALLI.

Keywords: Epistemological Beliefs, Foreign Language Learning Beliefs

ABBREVIATIONS

FLL: Foreign Language Learning

The BALLI: Beliefs about Language Learning Inventory

The EBQ: Epistemological Beliefs Questionnaire



LIST OF TABLES

Table 3.1. The Percentage of Males and Females Participated in the Study	41
Table 3.2. Demographic Data of the Participants Filled in the Questionnaires	41
Table 3.3. Demographic Data of the Interviewees.....	42
Table 4.1. Learners' Beliefs about Effort in Learning	50
Table 4.2. Learners' Beliefs about Ability in Learning	52
Table 4.3. Learners' Beliefs about Singularity of Truth	54
Table 4.4. Learners' Beliefs about Difficulty of Language Learning.....	56
Table 4.5. Beliefs about Difficulty of English and Duration of Fluency	56
Table 4.6. Learners' Beliefs about Foreign Language Aptitude	58
Table 4.7. Learners' Beliefs about the Nature of Language Learning.....	60
Table 4.8. Learners' Beliefs about Learning and Communication Strategies	61
Table 4.9. Learners' Beliefs about Motivations and Expectations	63
Table 4.10. The Relationship between Students' Epistemological and FLL Beliefs.....	64
Table 4.11. Learners' Epistemological Beliefs in terms of Gender	65
Table 4.12. Learners' Foreign Language Beliefs in terms of Gender.....	66
Table 4.13. Learners' Epistemological Beliefs in terms of Field of Study.....	67
Table 4.14. Learners' Foreign Language Learning Beliefs in terms of Field of Study ..	68
Table 4.15. Students' Beliefs about Ways of Acquiring Knowledge	72
Table 4.16. Students' Beliefs about Features of Successful Learners	75
Table 4.17. Students' Beliefs about the Ways of Overcoming Difficulties in Learning	78
Table 4.18. Students' Beliefs about the Role of Ability in Learning.....	80
Table 4.19. Students' Beliefs on Certainty of Knowledge.....	82
Table 4.20. Students' Beliefs on Investigation of Knowledge.....	82
Table 4.21. Students' Beliefs on the Singularity of Truth	84
Table 4.22. Students' Beliefs about Their Level in English	85
Table 4.23. Students' Beliefs about Their Best Developed Skill.....	86
Table 4.24. Students' Beliefs about Difficulty of Skills	86
Table 4.25. Students' Beliefs about the Most Important Domain.....	86
Table 4.26. Students' Beliefs about Foreign Language Aptitude	89
Table 4.27. Students' Beliefs about Their Talent in FL.....	90
Table 4.28. Students Beliefs about Learning English Well in the Future	91
Table 4.29. Students Beliefs about Reasons for Learning a Foreign Language	92

Table 4.30. Students’ Beliefs about Challenges in FLL	94
Table 4.31. Students’ Suggestions for Success in FLL	96



LIST OF APPENDICES

Appendix 1: Turkish Version of Epistemological Beliefs Questionnaire	123
Appendix 2: Turkish Version of Beliefs about Language Learning Inventory	127
Appendix 3: Interview Questions	130
Appendix 4: Permission Letter	132
Appendix 5: Ethics Approval.....	133



TABLE OF CONTENTS

COVER.....	i
APPROVAL	ii
DEDICATION	iii
ACKNOWLEDGEMENTS	iv
ÖZET	v
ABSTRACT.....	vi
ABBREVIATIONS.....	vii
LIST OF TABLES	viii
LIST OF APPENDICES	x

CHAPTER 1

INTRODUCTION	1
1.0. Introduction.....	1
1.1. Background to the Study.....	2
1.2. Purpose and Problem Statement of the Study.....	4
1.3. Significance of the study.....	5
1.4. Limitations	6
1.5. Assumptions of the study.....	6

CHAPTER 2

REVIEW OF THE LITERATURE	7
2.0. Introduction.....	7
2.1. Beliefs and Knowledge	7
2.2. Epistemological Beliefs	8
2.2.1. Epistemological Development Models.....	10
2.2.2. Epistemological Beliefs as Multi-Dimensional System	13
2.2.3. Epistemological Beliefs and Classroom Learning.....	15
2.2.4. Epistemological Beliefs Studies	17
2.2.5. Epistemological Beliefs Studies Regarding Gender, Achievement and Field of Study	20
2.3. Foreign Language Learning Beliefs	24
2.3.1. Studies on Language Learning Beliefs	27

2.3.2. Studies on Language Learners' Beliefs across Cultural Groups	32
2.3.3. Language Learners' Beliefs in Relation to Strategy Use.....	33
2.3.4. Studies on Learners' Beliefs Regarding Gender and Field of Study	34
2.3.5. Studies about the Effective Factors on Learners' Beliefs.....	35
2.4. Epistemological Beliefs and Foreign Language Learning Beliefs	36

CHAPTER 3

METHODOLOGY	38
3.0. Introduction.....	38
3.1. Research Questions.....	38
3.2. Context of the Study	38
3.3. Research Design	39
3.4. Sampling and Participants	40
3.5. Instruments/Data Collection	42
3.5.1. Epistemological Belief Questionnaire (EBQ)	42
3.5.2. The Turkish Version of Schommer's Epistemological Beliefs Questionnaire	43
3.5.3. The Beliefs about Language Learning Inventory (BALLI).....	44
3.5.4. Interviews	44
3.6. Procedure of the Study.....	45
3.7. Data Analysis.....	46
3.8. Reliability.....	48

CHAPTER 4

FINDINGS AND RESULTS	49
4.0. Introduction.....	49
4.1. Findings about the First Research Question: What are the Epistemological Beliefs of University Students?.....	49
4.2. Findings about the Second Research Question: What are the Foreign Language Learning Beliefs of University Students?	55
4.3. Findings about the third Research Question: Is There a Statistically Significant Relationship between the Epistemological Beliefs and Language Learning Beliefs of University Students?.....	64

4.4. Findings about the Fourth Research Question: Is There Any Significant Difference in Epistemological and Language Learning Beliefs of University Students in terms of Gender?	64
4.5. Findings about the Fifth Research Question: Is There Any Significant Difference in Epistemological and Language Learning Beliefs of University Students in terms of Field of Study?.....	66
4.5. Summary	69
4.6. Analysis of Interviews	71
4.6.1. Analysis of Interviews about Learners' Epistemological Beliefs.....	71
4.6.2. Analysis of Interviews about Learners' Language Learning Beliefs	84

CHAPTER 5

CONCLUSION AND DISCUSSION	99
5.0. Introduction.....	99
5.1. Conclusion and Discussion.....	99
5.2. Implications of the Study	112
5.3. Recommendations for further studies	113
6. REFERENCES.....	114
7. APPENDICES	123
7.1. Appendix 1: Turkish Version of Epistemological Beliefs Questionnaire	123
7.2. Appendix 2: Turkish Version of Beliefs about Language Learning Inventory	127
7.3. Appendix 3: Interview Questions	130
7.4. Appendix 4: Permission Letter	132
7.5. Appendix 5. Ethics Approval.....	133

CHAPTER 1

INTRODUCTION

1.0. Introduction

We all have beliefs and these beliefs influence us in many ways. They have a critical role in our efforts, decisions and behaviours. When we attempt to learn any subjects, our beliefs, which are defined as notional concepts and attitudes that people assume to be true (Borg, 2001) are effective and they direct our learning process either in a positive or negative way.

Definitely, people hold varied kinds of beliefs concerning a great deal of issues; one of them is epistemological beliefs, which are defined by Jehng, Johnson, and Anderson (1993) as “socially shared intuitions about the nature of knowledge and learning” (p. 24). In a system of education, students bring their settled epistemological beliefs into their learning settings. When it comes to language learning, similarly, learners also take along their existing foreign language learning (FLL) beliefs with themselves into an educational environment. That is, “in their endeavours to learn a foreign language, learners try to make sense of their world and construct their own beliefs on the basis of their own experience” (Kayaoğlu, 2013:37).

We are in an era where students are placed at the centre of an education system. Likewise, “foreign language teaching and learning have changed from teacher-centred to learner-centred environments” (Moeller & Catalano, 2015:327). Therefore, learners’ needs, learning styles, beliefs, aims, and attitudes are recommended to be taken into account by educators. In this regard, understanding foreign language learners’ epistemological and language learning beliefs, and how these beliefs are connected with each other is of great importance as these beliefs may affect students’ language learning process and achievement.

Learners’ beliefs and motivation in FLL are interrelated and their beliefs about themselves, the language they learn and language learning may affect their behaviours (Hall, 2011). Therefore, we heed any attempts to elicit epistemological and foreign language learning beliefs of learners and to examine the relationship between these two kinds of beliefs will be valuable and contribute to foreign language learning studies. Awareness of learners’ both epistemic and language learning beliefs and the relationship between the two may enable instructors of foreign languages to provide

more efficient ways of teaching and create more appropriate opportunities for foreign language learners.

1.1. Background to the Study

With the tendency towards a learner-centred approach in education, factors affecting learners have started to take much interest. This change has led those who concern learning to understand learners' perspectives and look at learning through their lens. One of the factors that are thought to have effects on learners is their beliefs. Anthropologists, social psychologists, and philosophers had an agreement on the definition that beliefs are psychologically-held understandings, premises or propositions associated with the world that are perceived as truths; and they have made contribution to understanding the phenomenon of beliefs and their impacts on actions (Richardson, 1996). "Beliefs are thought to drive actions" (Richardson: 1996:7); in this wise, they may affect learners' behaviours and decisions while learning. Therefore, an understanding of them should be regarded as one of the most important aspects of learning process. An insight into beliefs that learners bring into learning process may enhance and promote the quality of a learner-centred education.

Likewise, foreign language learning and teaching have undergone through the same paradigm shift due to the studies investigating the way students learn a foreign language (Moeller & Catalano, 2015). In a foreign language setting, learners surely hold a range of beliefs about language learning. Language learners' beliefs may be about lots of components of learning such as beliefs about general learning, foreign language learning, teachers, themselves, their and their teachers' roles, and feedback given by teachers (Cotterall, 1995). These beliefs may affect or prevent learners' receptiveness to the opinions and activities presented in language classrooms (Cotterall, 1995), may have influences on their perception of language, the strategies and methods they use, and their achievement in positive or negative way. The importance of "understanding learner beliefs about language learning is essential to understanding learner strategies and planning appropriate language instruction" (Horwitz, 1999:557), and "examining learner beliefs may help teachers understand why learners behave as they do and lead to a clearer understanding of classroom life" (Hall, 2011:138).

As human beings, our understanding and perception of nature, acquisition and sources of knowledge reflect our personal epistemology, namely, our epistemological beliefs that "are defined as socially shared intuitions about the nature of knowledge and

learning” (Jehng et al., 1993: 24). “Beliefs about knowing and knowledge are potentially important determinants of intellectual performance” (Schommer, 1990:309); and they have significant impacts on one’s learning process, as well. They probably influence the way students learn and methods of teachers (Schommer-Aikins, 2004). Hence, “these beliefs may help or hinder learning” (Schommer & Walker, 1995:430). That’s why they matter and necessitate a closer attention. An in-depth understanding of epistemic beliefs in a learning medium may improve individuals’ learning (Schommer, 1990).

Research showed the role of epistemological beliefs in students’ learning and the relation between epistemological beliefs and learners’ academic performances (Schommer, 1990; Hofer, 2000; Cano, 2005; Kızılgüneş, Tekkaya & Sungur, 2009). Kızılgüneş et al., revealed the indirect effects of epistemological beliefs on attainment motivation and learning approach. Epistemic beliefs affect the way learners’ draw conclusions from the given information. For instance, the extent a learner believes in certain knowledge indicates his/her level of abstracting changeable or certain conclusions from a text; the more one believes in accurate knowledge, the more he or she tends to abstract absolute consequences (Kardash & Scholes, 1996). Likewise, learners who regard knowledge as isolated pieces of information may believe that knowledge is formed by recollection of definitions, and they may depend on rehearsal strategies as tools of studying (Schommer & Walker, 1995).

As epistemic beliefs reflect our ideas about acquisition of knowledge and formation of learning, it is brought to mind that whether a relationship between learners’ epistemological and FLL beliefs exists or not. When we review the literature, we realize that the relationship between learners’ epistemological beliefs and language learning beliefs were rarely investigated. Mori’s (1999) study, one of the few, investigated language learning beliefs and epistemological beliefs of college students learning Japanese and the study revealed that epistemological and language learning beliefs had multiple independent dimensions with a complex system, and epistemological beliefs impact FLL. Another study in this area by Ziegler (2015) looked for the relation between epistemological beliefs and vocabulary knowledge in FLL.

For effective foreign language learning to take place, how learners’ epistemological beliefs are related to and interact with their beliefs about FLL need to be clearly understood and need to be explored. This kind of studies will enable instructors and teachers of foreign languages to understand what is really going on in

language learners' minds and adjust their teaching practices in accordance with beliefs of learners.

1.2. Purpose and Problem Statement of the Study

Dealing with the influential factors in FLL is an essential issue in the way of providing learners with a good deal of helpful opportunities for a better language learning experience. Many factors such as learners' learning styles, aims, needs, age, aptitude, motivation are handled and discussed by educators in the field of foreign language learning. One of these factors is learners' belief. In a FLL process, learners bring in their beliefs and preconceptions with them about learning and teaching, and "virtually all learners, particularly older learners, have strong beliefs and opinions about how their instruction should be delivered" (Lightbown and Spada, 2013: 90). In this regard, handling undergraduate students' beliefs will be valuable and can utilize an insight into FLL by adults.

On the other hand, learners hold epistemic beliefs that are defined as one's opinions about knowledge and the way it is acquired. As a philosophical concept a learner's personal epistemological beliefs influence the way he plans to study a subject, his strategies of study and academic attainment (Schommer, Crouse & Rhodes, 1992). Similarly, epistemic beliefs may affect and direct learners' FLL processes. Assuming that one language learner believes that the ability to learn is innate or that knowledge is absolute (Schommer, 1993), then, the learner may exhibit attitudes or may make decisions about foreign language learning consonant with those epistemic beliefs. Likewise, if learners believe that learning depends on effort as shown in a study by Eren (2007), then, they may endeavour much in learning a language. When viewed from this aspect, the importance of language learners' epistemological beliefs can be unfolded better.

Actually, both epistemological beliefs and beliefs about language learning have been investigated separately so far. However, studies concerning the relation between the two are limited in this sense. More research in this area exploring the relationship between epistemological and language learning beliefs may help for a deeper understanding of students learning a foreign language. It is obvious that an "insight into epistemological beliefs may advance our understanding of human learning" (Schommer, 1990:503); and definitely "understanding learner beliefs about language

learning is essential to understanding learner strategies and planning appropriate language instruction” (Horwitz, 1999:557).

Within this framework, in this study, we aim to explore and investigate the relationship between epistemological beliefs and language learning beliefs of the university students in a Turkish university context and whether there is a gender and field of study differences in students’ language learning beliefs and epistemological beliefs. The research focuses on the following research questions:

1. What are the epistemological beliefs of university students?
2. What are the language learning beliefs of university students?
3. Is there a statistically significant relationship between the epistemological beliefs and language learning beliefs of university students?
4. Is there any significant difference in the epistemological and language learning beliefs of university students in terms of gender?
5. Is there any significant difference in the epistemological and language learning beliefs of university students in terms of fields of study?

1.3. Significance of the study

“Foreign language acquisition was revealed to be a complex, multidimensional process influenced by both learner and environment variables” (Moeller & Catalano, 2015:330). In this context, learners are influential by carrying their beliefs in language learning process. More studies concerning learners’ opinions while learning a foreign language may broaden language instructors’ teaching perspectives.

The beliefs people construct throughout their lives lead up to either positive or negative results at every stage of their lives. Foreign language learning is also a process that affected by diverse factors, of course, by learners’ beliefs, as well. When the literature is reviewed, it is seen that there is a lack of studies concerning the relation between language learning beliefs and epistemological beliefs. Yet, learners’ FLL beliefs may be reflection of their epistemological beliefs. In other words, epistemological beliefs may shape learners’ beliefs toward learning a foreign language. Hence, this study targets to be an additional source as a research focusing on learners’ epistemological beliefs and language learning beliefs, and the relation between these beliefs. An awareness and understanding of this aspect of beliefs in relation to foreign language learning may lead educators and researchers in the field of foreign language

learning to investigate further studies in this regard. On the other hand, the outcomes of this study may be a suggestive one for teachers and instructors of foreign languages in adaptation of their teaching in accordance with their learners' beliefs towards learning a foreign language.

1.4. Limitations

This study carried out only in one Turkish university by gathering beliefs of first-grade students who took English as a compulsory course during the academic year of 2006-2017. Therefore, the results cannot be generalized to all the university students in Turkey. The study only handled the relationship between epistemological and FLL beliefs of learners. These can be regarded as the limitations of this present study.

1.5. Assumptions of the study

The participants who were the first-grade undergraduate students from Şırnak University assumed to have filled the questionnaires and answered the semi-structured interview questions sincerely and honestly, which were used as data-collecting tools of this study.

CHAPTER 2

REVIEW OF THE LITERATURE

2.0. Introduction

Throughout in this chapter, the research on learners' epistemological and foreign language learning beliefs is reviewed and the concepts and studies with regard to these beliefs are introduced. In this sense, the term *beliefs*, epistemological beliefs, epistemological beliefs and learning, epistemological beliefs studies; then, foreign language learning beliefs, studies related to FLL beliefs, and the research on the relationship between epistemological beliefs and language learning beliefs are presented.

2.1. Beliefs and Knowledge

We all hold beliefs about issues and phenomenon happening around us; our behaviours obviously are affected by them. Philosophers identify the word *belief* as the attitudes human beings assume to be true (Schwitzgebel, 2015). Richardson (1996) defines beliefs "as psychologically-held understandings, premises or propositions about the world that are felt to be true" (p. 103).

Although the holder of a belief as a notional aspect assumes it to be true, he/she may also find out that others may have alternative beliefs. This shows the difference between knowledge and belief; knowledge is regarded as realities (Borg, 2001). Similarly, Fenstermacher (1994) makes the distinction between belief and knowledge by stating that a claim to know is different from a claim to believe as it requires justification that beliefs do not. In this sense, knowledge requires conditions in order to be accepted as truths. From this point of view, knowledge is traditionally defined as justified true beliefs (Crumley, 2009; Audi, 2010). Lehrer (2015) suggests four conditions of knowledge: *truth condition* (regarding something as true), *acceptance condition* (accepting something to be true), *justification* (affirmation of something accepted as true) and *justification without falsity* (the complete justification that a person has for what she/he accepts must depend on true statement). Justification seeks

rationale, reason and proof to believe (Audi, 2010). Namely, knowledge claim depends on some evidence (Richardson, 1996)

However, “beliefs are subjective and exist within one’s own experience” (Barcelos, 2012: 36). Individuals’ “beliefs have much in common with concepts such as dispositions, implicit theories, preconceptions, attitudes, values, opinions, judgments, perspectives and even personal theories” (Kayaoğlu, 2013:36), and therefore, differ from knowledge in terms of evidence, justification and affirmation. In this regard, “knowledge entails true belief but belief does not entail knowledge” (Armstrong, 1973:152). However, what makes beliefs important is their way “to drive actions” (Richardson, 1996:106) and having a role in people’s decisions and behaviours and being effective in their lives.

Epistemologists also concerns the way individuals acquire knowledge. Various ways of acquiring knowledge are defined: from authority figures and experts, one’s own justification and judgement, one’s effort and learning process or totally by one’s learning ability with no effort (Chan & Elliott, 2004). According to O’Brien (2006) individual’s knowledge can be categorized in three sorts of knowledge: 1) factual/propositional knowledge, 2) know-how (ability knowledge) and 3) knowledge by acquaintance. Individuals may hold different knowledge; two people, or males and females may differ in their knowledge or ways of knowing. However, the categories of knowledge mentioned above remains stable (Fenstermacher, 1994).

2.2. Epistemological Beliefs

Except beliefs about events, people constitute beliefs about knowledge and learning, as well. Individuals’ beliefs are interrelated with their understanding about any kind of subjects, events or phenomenon. Those beliefs surely reflect our perception of knowledge and learning called epistemological beliefs, which “are defined as socially shared intuitions about the nature of knowledge and learning” (Jehng et al., 1993:24).

The word *Epistêmê* is a Greek word signifying knowledge (Parry & Richard, 2014), and “the term ‘epistemic’, by contrast, is related to knowledge more generally and to the conditions for acquiring it” (Hofer & Pintrich, 2002:4). As to the word *Epistemology*, “it is the theory of knowledge and justification” (Audi, 2010:1), and as a philosophical term, it is “concerned with the origin, nature, limits, methods and justifications of human knowledge” (Hofer & Pintrich, 2002:4). In other word,

epistemology is “the philosophical study of knowing and other desirable ways of believing and attempting to find the truth” (Zagzebski, 2008:1). Epistemology not only deals with knowledge but also reasoned belief, probability, plausibility, proving (Rescher, 2003). According to Zagzebski (2008), Epistemology basically deals with such questions: What is knowledge? Is knowledge possible? How do we get it?

Individuals’ epistemological beliefs, which also called as *personal epistemology* is defined as individuals’ cognitions associated with knowledge and the nature of knowledge. It “refers to what individuals think knowledge is and how they think that they and others know” (Hofer & Bendixen, 2012:227). In this sense, personal epistemology concerns how people come to know, what the beliefs they have of knowing, and how these antecedents affect their thinking (Hofer and Pintrich, 1997). On the other hand, personal epistemology is defined by Schommer (1990) as a system of independent beliefs that have obvious effects on comprehension and learning, and they are influenced by home and educational background.

What aspects the framework of epistemological beliefs should include were dealt with by the researchers. Hofer and Pintrich (1997) propose that the construction of epistemological beliefs be restricted to individuals’ beliefs in relation to the nature of knowledge and the processes of knowing. Defining individuals’ beliefs about knowledge and the process of knowing as personal theories, they indicate that beliefs about learning, teaching and intelligence are linked to epistemological beliefs, and that general thinking and reasoning processes are associated with epistemological thinking, as well. Schommer (1990, 1993) also included learning in epistemological beliefs alongside with beliefs related to knowledge by proposing a multi-dimensional belief system.

Kuhn, Cheney & Weinstock (2000) point out to the fact that “beliefs about knowing and knowledge are potentially important determinants of intellectual performance” (p: 309). In this regard, individuals’ views of knowledge and learning as mental processes inevitably play a role in individuals’ behaviours and decisions. Research on personal epistemology has focused on individuals’ opinions about the nature and the sources of knowledge and their epistemological developmental process. On the other hand, how individuals realize learning is another concern of personal epistemology. Researchers concerning epistemological beliefs proposed some models and systems to understand personal epistemology of individuals. Personal epistemological beliefs were evaluated as developmental stages until Schommer (1990), who considered them as a multi-dimensional system. In this sense, developmental and

multidimensional views are two ways, in which the evaluation of personal epistemology was carried out. Developmental views that evaluate individuals' personal epistemology as a process including level and stages by defining and commonly labelling three levels as *absolutism/objectivism* (knowledge is right or wrong, and authorities have the answers), *multiplism/subjectivism* (knowledge consists of mere opinions, and anyone's opinion is valid), and *evaluativism/objectivism-subjectivism* (knowledge must be evaluated for evidence), while multidimensional views focused on epistemological dimensions as *certain/simple knowledge, justification for knowing, source of knowledge* and *attainability of truth* (Muis&Franco, 2009). The models and systems display that individuals' development with regard to the aspects of knowledge follow the road from immature beliefs to more sophisticated ones or from those of *subjective* to those of *objective* through number of stages and levels over time. A closer view of these models and systems are presented in the following parts.

2.2.1. Epistemological Development Models

Several models about learners' developmental stages with regard to their beliefs about knowledge and learning were proposed by researchers. These models indicate mental and cognitive stages and transitions that individuals are at or pass through in time, in the way of construction of knowledge and learning. Those who completed these phases may hold more sophisticated beliefs about knowledge and learning. Namely, personal opinions about phenomena and happenings around may be transformed into more objective, reasoned and interrogative ones from those of subjective and unquestioned.

Scheme of intellectual and ethical development

Research on epistemological improvement starts in the mid of the 1950s with Perry (1970) whose study resulted in a scheme, which was utilized for understanding the aspects of knowledge that college students displayed during their undergraduate education (Hofer & Pintrich, 1997). Perry formed a checklist named a Checklist of Educational Values (CLEV), which was conducted to 313 first-grade students in the academic year of 1954-1955 and interviewed 31 students (27 males, four females). At the end of the CLEV implementation and interviews, Perry and his friends made up a scheme called Perry's Scheme of Intellectual and Ethical Development consisting of

nine developmental positions grouped in four categories as *dualism*, *multiplicity*, *relativism*, and *commitment within relativism*.

In the category of *Dualism*, there are two positions; at position 1, learners believe that knowledge is either true or false (certain) and at position 2, they think that knowledge is determined by authorities and learners get it. *Multiplicity* has position 3 where learners come to find out that knowledge diversifies; the authorities do not have an agreement yet and the actuality is still knowable, and position 4, in which individuals start to believe that one can freely express his opinions; knowledge is not certain and the present options are acceptable equivalently. The category of *Relativism* consists of position 5, in which learners' ideas change towards a contextual relativism; they start to think that they may form meaning actively, and position 6 where they find out that knowledge is contextual and relative; they start to believe that they can improve their own personal opinions. Lastly, at *commitment within relativism* category, the individuals consider their self-identity and values within the framework of relativism (cited in Hofer & Pintrich study, 1997).

Women's ways of knowing

Perry's work mostly focused on men's beliefs about knowledge. To retrieve this deficiency, Belenky, Clinchy, Goldberger, Tarule (1986) created a model focusing on women's views on learning by creating five epistemological categories: 1) *silence* (women do not produce ideas); 2) *received knowledge* (women do not form their ideas but are able to get knowledge from authorities); 3) *subjective knowledge* (women believe that truth is individually sensed); 4) *procedural knowledge* (women know how to use and transfer it); and 5) *constructed knowledge* (women believe that they can create knowledge) (cited in Brookes study, 1988).

Argumentative reasoning

According to Hofer & Pintrich (1997) "Kuhn's (1991) contribution to epistemological understanding has been in the connection of epistemological theories to reasoning" (p. 105). As the former of this model, Kuhn determined three categories of epistemological beliefs as *absolutist*, *multiplist*, and *evaluative*. *Absolutists* regard knowledge as certain and they indicate that their beliefs are quite accurate, while *multiplists* doubt that authorities possess exact knowledge and think that experts

contradict about truth in the course of time. *Evaluative* thinkers do not view knowledge as certain, but they recognize expertise and believe that they are not as certain as experts (cited in Hofer & Pintrich study, 1997).

Epistemological reflection model

Magolda (1992) studied epistemological beliefs of 101 university students (51 females) for five years. She interviewed the students and conducted her Measure of Epistemological Reflections (MER) in her longitudinal study.

The interviews, which were implemented in the first-year of the study dealt with six areas of epistemological development: the roles of the learner, instructor and peers; evaluation in learning, the nature of knowledge and decision making. However, the latter interviews included questions about the nature of knowledge, out-of-class learning, and student changes in response to learning experience.

Magolda's study revealed four categories: *absolute*, *transitional*, *independent*, and *contextual*. Those who are in *absolute* stage believe that knowledge is absolute, and authorities possess the replies. *Transitional* people start to suspect the certainty of knowledge and realize that authorities may not know all of the knowledge. *Independent* ones begin to think that authorities are not the sole source of knowledge and create their own beliefs beside those of authority. *Contextual* people form their own points of view by utilizing evidence. This study differs from the previous studies by investigating both males and females' epistemological beliefs and improvements (cited in Hofer&Pintrich study, 1997).

Reflective judgement model

Kitchener & King (1981,1994) developed another model concerning human's reasons of beliefs, the variations in their aspects of truths, justifications, and the nature of knowledge influenced by age and education level; on the other hand, the relation between people's epistemological presumptions and their manners of forming judgments on controversial matters. The model consists of seven stages and three levels, which are *pre-reflective thinking* level (stage 1 and 3), *quasi-reflective thinking* level (stage 4 and 5), and *reflective thinking* level (stage 6 and 7). Pre-reflective thinkers regard knowledge as absolute, and they believe that all questions have one single answer that is defined by authorities with certainty. They also think that there are no ill-

structured problems but well-structured ones; they depend on unproven views. *Quasi-reflective thinkers* suspect absoluteness of knowledge and see ambiguity in it as a procedure that leads to construction of knowledge. Various approaches, diverse types and rules of evidence are utilized. *Reflective thinkers* make use of evidence and logic to judge issues. They believe that claims about knowledge must be considered in a context-related way and they must be assessed in terms of consistency and coherence.

2.2.2. Epistemological Beliefs as Multi-Dimensional System

The developmental approaches presented above considered knowledge as one single dimension. However, Schommer (1990, 1993) as the leading researcher dealing with epistemological beliefs considered them as multi-dimensional systems. Likewise, Hofer (2000) proposed a four dimensional theoretical framework to describe epistemological belief system. Schommer's system of epistemological beliefs and Hofer's multidimensional theoretical framework are introduced in the following two sections.

Schommer's epistemological beliefs system

As one of the leading figures in the field of epistemology, Schommer (1990) preliminary proposed that epistemological beliefs have a number of independent dimensions consisting of *the structure, certainty, source of knowledge, control and speed of knowledge acquisition*.

By continuing her research on epistemology, Schommer (1990), in another study, put forward epistemological beliefs as a system composed of unconnected multi-dimensional beliefs, in which one could be either developed or not. "By system, it is meant that there is more than one belief to consider, and by more or less independent, it is meant that a learner could be sophisticated in some beliefs but not necessarily sophisticated in other beliefs" (Schommer, 1993:406). Schommer (1990, 1993) proposed four belief dimensions as following:

1. Knowledge is best characterized as isolated facts (simple knowledge),
2. Knowledge is unchanging (certain knowledge),
3. The ability to learn is fixed at birth (innate ability),
4. Learning occurs quick or not-at-all (quick learning).

Schommer (1990) formed a questionnaire in order to measure epistemological beliefs. The scale is a Likert-type with 63-item called Epistemological Belief Questionnaire (EBQ). The belief dimensions have 12 subsets. The high score from the scale shows one's naïve beliefs, while the low score indicates sophisticated beliefs of participants. Schommer-Aikins (2004) states that "an individual who believes that knowledge is simple and certain, and that learning is quick and fixed at birth, is considered less mature" (p. 21). In this sense, the degree of individuals' beliefs about the EBQ items of each dimension shows their level of developed or undeveloped epistemic beliefs.

According to Schommer, epistemological beliefs are very complex and they cannot be grabbed in only one dimension. She based her epistemological belief theory on three hypotheses: first, epistemological beliefs are considered as a system of *more-or-less independent* beliefs. The belief system indicates multiple beliefs, while *more-or-less independent* means that the sophistication of a learner in two beliefs may not occur simultaneously. Second, epistemological beliefs are identified more in frequency distributions than in bisected ones. In other words, knowledge can be either changeable or unchangeable in particular percentages, while a part of it is to be discovered. Namely, the percentages for each category show the variation between learners. The third hypothesis is that epistemological beliefs are to change. They are influenced by two significant factors: education and maturation (cited in Schommer, Celvert, Gariglietti, & Bajaj study, 1997).

Hofer's multi-dimensional theoretical framework

Based on the developmental models and Schommer's (1990, 1993) independent dimensions, Hofer & Pintrich (1997) identified four dimensions: *certainty of knowledge* and *simplicity of knowledge* under *nature of knowledge* area; *source of knowledge* and *justification for knowing*, in the area of *nature of knowing*. These two areas and four dimensions are described as below:

1. Nature of Knowledge: This can be described as a developing understanding where one view knowledge from an absolute to a relativistic perspective and to contextual and constructivist viewpoints afterwards.

Certainty of knowledge: The extent one evaluates knowledge as constant or changeable; a move from a constant to a more changeable point in process.

Simplicity of knowledge: On a continuum, knowledge is seen as concrete and discrete at lower-level, while it is regarded as relative and contextual at upper-level.

2. Nature of Knowing: This area of knowledge is about one's beliefs in relation to the origin of knowledge and justification for knowing, that is, how one evaluates evidence, authority and justification period.

Source of knowledge: At the beginning of the continuum, one attributes the source of knowledge to outer authorities, and then after interaction with others he/she becomes the creators of her/his own ideas.

Justification of knowing: This is related to people's assessments towards knowledge claims, authority, and evidence for knowledge. In process, a shift from a dualistic view to multiplistic perspective is seen, that is, thinkers make rationales for their beliefs about knowledge (Hofer&Pintrich; 1997).

However, later in her study Hofer (2000) determined four dimensions: 1) certain/simple knowledge; 2) justification for knowing; 3) The source of knowledge; and 4) attainability of truth. The *certain/simple knowledge* dimension, if we assume it as a continuum, one end of that shows knowledge as separated elements known with certainty while other side reflects that knowledge will be considered as more complex needing interpretation. *Justification for knowing* as a dimension reflects individuals' beliefs that value personal opinions over research or expertise. *Source of knowledge* dimension shows individuals' opinions regarding outer authorities or experts as the sources of knowledge, and describing them as trustable figures. An additional dimension, *attainability of truth*, which is possibly linked to certainty of knowledge, indicates individuals' faith in experts that they can finally find the truth.

2.2.3. Epistemological Beliefs and Classroom Learning

Learners bring along their individual and educational experiences and backgrounds, namely, their personal epistemological belief system, which reflects their opinions about learning consisting of their own beliefs, the beliefs of their parents, those

of their teachers and others. In a way, these beliefs play an important role during learners' education process. For instance, a teacher believing that learners could get all the information from an omniscient expert or authority might restrict his students in terms of having diverse classroom activities that address to every kind of learners such as kinaesthetic or visual (Bendixen & Feucht, 2010). Teachers' who have sophisticated personal epistemic beliefs about learning may be more involved in problem solving tasks and profound evidence based solutions (Brownlee, Schraw, Berthelsen, 2012). Similarly, learners' own epistemological beliefs may influence their learning. A learner thinking that learning is innate may also feel suspicious about his/her talent in learning a subject. Parents' attitudes also have impact on learners' beliefs. Schommer (1990) emphasizes that the degree of parents' education and their expectations of their children to take responsibility for their own thinking shows the extent the children have a sophisticated epistemological beliefs.

Personal epistemology is a significant field of study and may provide us with an insight into the way individuals form meaning, and the effects of it on his/her learning (Hofer, 2000). Moreover, "individuals' 'epistemological beliefs' play a critical role in strategic learning in general, higher-order thinking and problem solving in particular" (Kardash & Scholes, 1996:261). Schommer & Walker (1995) in their study set forth the importance of epistemological beliefs in a learning environment in the following way:

Epistemological beliefs have a critical place in the classroom. These beliefs may help or hinder learning. Furthermore, epistemological beliefs are most likely being modified by classroom interactions. If we want students to be thoughtful, independent thinkers and yet we teach them lists of facts as if they are immutable, then we may be instilling philosophical systems in students that resist our own teaching objectives.

Looking "insight into epistemological beliefs may advance our understanding of human learning" (Schommer, 1990:503), and the knowledge of epistemological belief system of learners and teachers as well is significant. To create a successful learning environment where all participants are aware of their beliefs and how they affect their learning or teaching, the elicitation of learners' epistemic beliefs can be very helpful.

2.2.4. Epistemological Beliefs Studies

Epistemological beliefs have interested philosophers, psychologist and educators, and their relationship with various subject areas has been investigated. Research that considers epistemological beliefs is an enlarging and complex field of study that interests psychologists and educators (Cano, 2005). From the late 20th century to date, a growing focus has been on epistemological studies that can be traced back to the studies of Perry (1968, 1970) who studied the epistemological beliefs of university undergraduates and gave direction to many researchers to step in the investigation of the structure of epistemological beliefs (Chan & Elliott; 2004a). Hofer and Pintrich (1997) also start the first studies related to epistemological beliefs with Perry, moreover, they traced back the research on epistemological improvement to the mid of the 1950s with Perry.

Research has focused on diverse aspects of epistemic beliefs in the last decades and they were analysed from varied perspectives. Following the studies by Schommer (1990, 1993), a great deal of studies have been carried out so far. Kardash & Scholes (1996) searched the effects of individuals' epistemological beliefs in problem solving, in-depth thinking and general strategic learning. Nayebi & Tahriri (2014) investigated the difference between males and females in terms of their epistemological beliefs. Likewise, epistemological beliefs and student motivation (Hofer, 1999), epistemological beliefs and prediction of academic achievement (Cano, 2005), epistemological beliefs and the problem solving skills (Aksan, 2006), prediction of academic motivation using epistemological beliefs (Karataş, 2011), the effect of epistemological beliefs on self-esteem (Özşeker, Canpolat & Yıldız, 2011), epistemological beliefs and moral reasoning (Topçu, 2011), students' problem solving frames and epistemological beliefs (Wampler, 2013), and epistemological beliefs and leadership approaches (Botha, 2013) were some other topics that also were handled by researchers.

Kitchener & King (1981) investigated post-adolescents' ways of reasoning to display how individuals' conceptions of the nature of knowledge, the nature of reality, and justification evolve in terms of age and educational levels. The findings demonstrated that the scores related to reflective judgment were different across age and educational level, that is, those who were better educated had more developed assumptions about justification of beliefs compared to those of less educated younger participants. The study implied that students differ with regard to their way of justifying

their beliefs at different educational and age level. It also demonstrated that making decisions about a range of complex issues depend partially on individuals' initial assumptions.

In another study, Kardash & Scholes (1996) revealed that in a problem solving, in-depth thinking and general strategic learning, individuals' epistemological beliefs are critical. They found that the degree of believing in certain knowledge determines one's level of abstracting changeable or certain conclusions from a text; the more one believes in accurate knowledge, the more he or she tends to abstract absolute consequences.

Deryakulu & Büyüköztürk (2002, 2005) formed a 34-item Turkish version of Schommer's (1990) epistemological beliefs questionnaire (EBQ) at the end of two studies conducted at several Turkish universities. The studies concluded that the Turkish version of EBQ, different from the original scale, consists of three dimensions: *the belief that learning depends on effort, the belief that learning depends on ability, and the belief that there is only one truth*. This scale was used in many studies in Turkish context (Eren, 2007; Ayaz, 2009; Er, 2013; Özdemir, 2013).

Rakıcıoğlu (2005) identified and compared the epistemological beliefs, the teacher-efficacy beliefs and the relationship between these two types of beliefs of 456 English language teaching (ELT) trainees from different universities in Turkey. The results indicated that teacher candidates were unsure about accuracy of knowledge and whether it comes from the authority or not. They believed that learning is *quick and constant* at birth; they felt no necessity to question knowledge by authority as they accepted that it was accurate. Students tended to stop striving for learning when they felt they did not learn quickly. The study detected a significant and negative correlation between *Authority-Quick Learning* and *Teaching Efficacy* dimensions. The degree that teacher candidates believe in accuracy, the source of knowledge, and innate ability factors showed the degree of their self-efficacy in their teaching. It means that the more EFL teacher candidates believed in accuracy of knowledge hand down by authority, the less they had faith in their teaching efficacy while the more they believed in accurate knowledge, the more they felt efficacious. On the other hand, the more they believed in innate ability, the less they felt efficacious in teaching.

A study by Otting, Zwaal, Tempelaar & Gijselaers (2010) analysed the relation between students' epistemological beliefs and their learning/teaching conceptions and how these conceptions were in association with the dimensions of epistemological beliefs based on a problem-based learning setting. The study showed evidence that

epistemological beliefs were multidimensional. They also found that most of the students had a constructivist (constructivism promotes students' self-regulated learning processes) conception of teaching and learning while they hesitated to leave the traditional conception of teaching and learning behind. Students' beliefs were affected by extended participation in problem-based learning in *learning effort/process*; even a short-exposure was effective. It was also revealed that there were structural relationships between students' epistemological beliefs and conceptions of teaching and learning.

Chan, Hu & Ku (2011) examined the connection between epistemic beliefs and critical thinking of Chinese learners by conducting two studies. In the first study, they found that the belief about certainty of knowledge was mostly related to one's thinking performance. The belief in fixed knowledge and innate ability predicted weaker performance by participants on daily evaluative thinking. On the other hand, the belief in fixed knowledge was an indicator of closed mindedness while the belief in fixed ability was linked to a low requirement of cognition. The second study revealed that those who believed in certainty of knowledge inclined to disregard opposite opinions and were weaker in terms of reversible thinking abilities, whereas those who held more advanced beliefs about certainty of knowledge or innate ability had better cognitive abilities and were more open-minded.

In another study Zhao & Zheng (2013) aimed to reveal the relations among epistemological beliefs, collaboration, and strategy use of Chinese Business English through semi-structured interviews. The study reached four dimensions of beliefs:

1. *Certainty of knowledge*: knowledge considered as constant and declarative; it changed out of individual involvement, and it was contextualized. Some learners viewed business English as fixed, while some reported as evolving.
2. *Organization of knowledge*: most students' points of view stood in the mid of the continuum. They inclined to think that knowledge should be linear, procedural, and pragmatic. Business knowledge should focus on 'how'; the students expressed the need for explicit knowledge rather than theoretical knowledge to establish their business.
3. *The Source of knowing*: students' views aligned from seeing knowledge sourced from one single authority to that of regarding it coming from various outer sources such as lecturers, experts, books, the Internet.

However, some considered knowledge to stem from both outer and inner sources such as personal meaning formation, negotiation and deliberations.

4. *Justification for knowing*: some students believed that their knowledge comes from their feelings and observations, but they related more advanced beliefs to theories. A few students showed evaluativist beliefs.

In another study in the field of epistemological beliefs, pre-service teachers' epistemological beliefs studying at Physical Education program at a Turkish university were investigated by Güngör (2016). The study reported that teacher candidates had sophisticated epistemological beliefs with regard to all three factors of the EBQ, namely, the belief that learning depends on ability, the belief that learning depends on effort and the belief that there is one single truth.

2.2.5. Epistemological Beliefs Studies Regarding Gender, Achievement and Field of Study

Epistemological beliefs in terms of variables such as gender, academic achievement, field of study, learning strategies and approaches were examined in different classroom contexts. In order to widen Perry's work, Ryan (1984), thinking that Perry's study fails in determining how beliefs affect students' academic achievement, aimed to show that how college students' conception of coherent for a piece of writing is related to their beliefs about the nature of knowledge. Through self-reports of the university students, totally four conceptions of coherence; two undeveloped (informativeness, grouping) and two developed (sequencing, unity) emerged. Those who held relativistic beliefs (context-oriented) about the nature of knowledge tended to demonstrate more developed coherence conceptions in comparison to dualist (fact-oriented) learners. The students who were found to be utilizing more mature prose coherence conceptions got higher grades on their essays. This study reported that learners' undeveloped epistemology may be effective on academic attainment by restricting the nature of epistemic standards. Personal differences among the university students in terms of their conceptions of prose coherence were also reported in the study.

As a continuance to Schommer's (1990) study, by focusing on the beliefs associated with the *simple knowledge* dimension of the epistemic beliefs scale,

Schommer, et al., (1992) aimed to reconfirm learners' beliefs about learning and the nature of knowledge. The study also aimed to investigate the relation between learners' epistemological beliefs and their mathematical text comprehension, assuming that epistemological beliefs influence a student's way of planning in studying a subject and his/her strategies of studying, and academic achievement. They found that belief in simple knowledge was a predictor of test achievement and it was related to comprehension and meta-comprehension.

Schommer (1993) carried out a study with high school students showing that epistemological progress was changeable and academic achievement could be forecasted by the belief in *quick learning*. This study also showed that in terms of the simple knowledge and certain knowledge dimensions, there were no difference between males and females, but they were lightly unlike in their epistemological beliefs related to the quick learning and fixed ability dimensions.

Jehng et al., (1993) reported that learners' beliefs about learning may change when one gets further education and that personal epistemological beliefs are dependent on one's level of education and field of study, that is, "at graduate level students believe that the nature of knowledge is uncertain, learning is not a totally orderly process, and independent learning is crucial, while undergraduate students tend to believe that knowledge is certain, learning process is in order and authority figures determine knowledge"(p. 32). They also showed that epistemological beliefs were multidimensional. Likewise, the students' differences in terms of the nature of knowledge and learning were linked to their level of education and domains.

Whether learners' epistemic beliefs differ or not across content domains were examined by Schommer & Walker (1995). They aimed to test the assumption that epistemological beliefs are domain independent. The study was conducted to undergraduate students from social science and mathematics. The outcomes of this study showed that individuals' epistemological beliefs seemed to be domain independent and similar across domains. It was also indicated that most of the students participating in the study had consistent level of epistemic development.

A research by Schommer et al., (1997) was carried out to reveal secondary school students' epistemological beliefs. The study showed a change in students' beliefs of fixed ability, simple knowledge, quick learning, and certain knowledge as they approached to the end of their 4th year in high school and they got better academic average as their degree of believing in quick learning decreased.

In another study considering gender and disciplinary differences and academic performance of first-year college students in terms of epistemological beliefs, Hofer (2000) found that men more likely tended to see knowledge as certain and dependent on authority than women and that in spite of similarities across disciplines, the participants had different epistemic perceptions of discipline. As for academic performance, the findings of the study indicated that, at least, in terms of *certain knowledge* dimension, there was a link between academic performance and epistemic beliefs. Cano (2005) found that students' epistemological beliefs affected their academic achievement by means of their learning approaches. Their epistemic beliefs also changed and transformed into more complex and realistic ones when they improved in their education.

Eren (2007) investigated epistemological beliefs of undergraduate students according to their field of study, gender and grades. The study had two main outcomes: one was that university students studying in Fine Arts Teaching (FAT), Physical Education (PET) and Business Administration (BA) had sophisticated *effort and ability beliefs*, no matter what their domains were. This suggests that undergraduate students lean to think that learning depends on effort not ability. The other result was that university students were identified to be in a transitional stage with respect to *unchanging beliefs*. There was not a gender difference in terms of the participants' epistemological beliefs; however, they differentiated with regard to their grades.

Muis & Franco (2009) investigated how epistemological beliefs were linked to learners' goals for success, learning strategies and achievement. They found that epistemic beliefs influenced the types of achievement goals and learning strategies, and as a consequence, the learners' academic attainment, as well.

Exploring first-year university students' epistemological beliefs in terms of variables such gender, age, and course of study, Walker, Brownlee, Lennox, Exley, Howells & Cocker (2009) found significant differences in terms of gender regarding the beliefs about acquisition of truth. Females were more inclined to believe in uncertainty of truth and innate ability of successful learners. Regarding age variable, the older learners were more likely to believe in uncertainty of knowledge than the younger learners. Likewise, significant differences were detected with regard to the courses studied.

By conducting a study to 1041 sixth grade elementary students in Turkey, Kızılgüneş et al. (2009) investigated how epistemic beliefs, achievement motivation,

learning approach are related to achievement. The study revealed that epistemological beliefs affected academic attainment by indirect influences on attainment motivation and learning approach. Students who thought that knowledge changes and it is the authority who decides on were identified to likely be better in self-efficacy beliefs in terms of learning; they had the needed qualifications for learning, getting higher assessment results and better learning standards and performance-goal orientations. On the other hand, learners who valued evidence, in other words, reasoning, experimenting and thinking were less efficacious and had lower level performance-goal orientations, and those who believed in certainty of knowledge had lower standards of learning and performance-goal orientations. By influencing attainment motivation and learners' approaches of learning, epistemological beliefs revealed to be a determining factor at school success.

Deryakulu & Büyüköztürk (2005) detected that female had more developed beliefs than males, and the candidate teachers of classroom and social studies had more sophisticated beliefs than candidate computer-teachers. Another study carried out in a Turkish university context was by Tümkaya (2012). Tümkaya examined 246 females and 242 male university students' epistemic beliefs in terms of gender, class, field of study, academic success and learning styles. No gender difference was detected in the study. The results were not meaningful for the three belief dimensions that *learning depends on effort*, *learning depends on ability*, and *there is one unchanging truth*. The study also revealed that the students of social science held more developed epistemic beliefs compared to the students of health and science and techniques, while it was in favour of the students of health in terms of learning depends on ability factor, and it was in favour of the students of science and techniques regarding the belief that there is only one truth.

Er (2013) aimed to reveal the epistemological beliefs of 533 teacher candidates who studied at a university in Turkey by conducting a Turkish version of Schommer's (1990) Epistemological Beliefs Inventory (EBI) that was adapted by Deryakulu and Büyüköztürk (2005). The study concluded that teacher candidates mostly had moderately sophisticated epistemic beliefs and they regarded learning as ability, while the results differed in terms of participants' gender and departments. Male students were found to believe that learning is more dependent on effort rather than ability compared to females. Another outcome was that male students had more matured beliefs than females on *the belief that learning is dependent on effort* dimension; whereas, females

had more matured beliefs in relation to *the belief that learning depends on ability* dimension. In comparison to the learners of Faculty of Education, the learners of Faculty of Science and Literature had a stronger belief that learning depends on effort. The students of Faculty of Education had more sophisticated beliefs in terms of *the belief that learning depends on ability* and *the belief that there is only one truth* sub-dimensions compared to the other groups.

Nayebi & Tahriri (2014) examined epistemic beliefs in terms of gender differences and did not find any statistically significant difference between males and females in terms of their epistemological beliefs. Likewise, examining the relation between pre-service teachers' epistemological beliefs and their academic attainment, Arslantaş (2016) found no significant differences in terms of gender based on the three factors of Epistemological Belief Scale. However, teacher candidates' epistemic beliefs were diverse depended upon their domains.

2.3. Foreign Language Learning Beliefs

Language learning settings are complicated areas of learning, in this regard, “what goes on in a classroom is inevitably much more than the logical and tidy application of theories and principle; it is localized, situated-specific, and, therefore, diverse” (Hall, 2011:4). In this diversity, many factors such as teachers' teaching approaches, methods, techniques, attitudes and beliefs; on the other hand, learners' learning styles, ages, goals, aptitude, needs, attitudes and beliefs are effective in a language learning setting. Learner's belief as one of these influential factors fundamentally directs language learning process.

Learners of a second or foreign language may form strong beliefs about the language they want to learn; that is, the nature of the language, the difficulty, methods, achievement expectations, the process of learning it, whether learning strategies are of use, and whether learning a language is a matter of talent (Bernat & Gvozdenko, 2005). It can be said that learners come into a FLL environment with these existing beliefs. In this sense, foreign language learning beliefs can be defined as the predetermined ideas or opinions that individuals bring into their learning setting with the aim of learning a foreign language. In other word, they are learners' beliefs about FLL.

Learners' beliefs may play either negative or positive role in learning a foreign language. That is, “the beliefs and attitudes learners hold have a profound influence on

their learning behaviour” (Cotterall, 1995:195). Horwitz (1988:283) expresses the impacts of the language learning beliefs as below:

One can envision many instances where preconceived notions about language learning would likely influence a learner’s effectiveness in the classroom. A student who believes, for example, that learning a second language primarily involves learning new vocabulary will expend most of his/her energy on vocabulary acquisition, while adults who believe in the superiority of younger learners probably begin language learning with fairly negative expectations of their own ultimate success. An unsuccessful learning experience could easily lead a student to the conclusion that special abilities are required to learn a foreign language and that s/he does not possess these necessary abilities.

Barcelos (2000:319) states that beliefs “are interrelated and interconnected with our actions as in an ecological system.” Therefore, as Horwitz (1999) stresses, “understanding learner beliefs about language learning is essential to understanding learner strategies and planning appropriate language instruction” (p. 557). Hall (2011), likewise, expresses this fact by indicating that “examining learner beliefs may help teachers understand why learners behave as they do and lead to a clearer understanding of classroom life” (p.138).

During their academic lives, students go through many processes. “Considering that students have accumulated a great deal of experience over the course of their education up to university, they are most likely to form certain beliefs about what constitutes effective or ineffective learning” (Kayaoğlu, 2013:36). In fact, these beliefs are shaped by various factors such as our living medium, the environment surrounding us, family, friends, experts, instructors and authorities. Spada & Lightbown (2013) based learners’ beliefs upon “previous learning experiences and the assumption (right or wrong) that a particular type of instruction is the best way for them to learn” (p. 90-91). Surely, those beliefs are pre-determined, sometimes fixed when a learner involves in a learning setting, which is generally a foreign language learning classroom. However, in a learning setting, “beliefs could vary from one student to another, but more importantly, they could also vary from context to context, and even within one and the same context” (Kalaja, 1995:196).

The society in which we live, for sure, have beliefs about language learning; so individuals acquire them consciously or unconsciously. Learners are exposed to and affected by many common and sometimes inconsistent beliefs (Horwitz, 1988) related

to learning, language learning, their teachers and the feedback they give, about themselves as language learners (Cotteral, 1995). If beliefs related to language learning are common in a society, then they are inevitably carried up into language classrooms by learners.

Surely, these beliefs have diverse characteristics. When the research is reviewed, it is seen that many characteristics of language learning beliefs are defined in the research. They displayed to be “context-specific” (Barcelos, 2000:319); “preconceived” (Horwitz, 1988:292); “dynamic and situated” (Pan & Block, 2011:401) and different across culture (Truitt, 1995). On the other hand, they were found to be influenced by social and political context (Pan & Block, 2011; Naghdipour, 2014) and by previous learning experiences (Naghdipour, 2014). However, as for categorization of foreign language learning beliefs, Tanaka (1999) reviewing the research, categorized learner beliefs in two main dimensions:

1. Beliefs about self as a language learner: self-efficacy, confidence, aptitude, motivation
2. Beliefs about approaches to language learning: This dimension may consist of beliefs about analytical and empirical learning (cited in Tanaka & Ellis study, 2003:65).

On the other hand, Richards and Lockhart (1996) categorized foreign language learners’ beliefs, as well. Their categorization is as below:

1. *Beliefs about the nature of English*: learners’ beliefs about difficult aspects of English and about the status of English in comparison to other languages.
2. *Beliefs about speakers of English*: learners’ specific opinions and attitudes about native speakers of English.
3. *Beliefs about four language skills*: learners’ specific assumptions about the nature of listening, speaking, reading, and writing.
4. *Beliefs about language learning*: learners’ beliefs about the ways to learn a language and about activity types and approaches, which they think are useful.

5. *Beliefs about appropriate classroom behaviour*: learners' beliefs about forms that constitutes appropriate classroom interaction and classroom behaviour (cited in Bahadır study, 2011).

The learner-centred approach in language teaching/learning continuum requires active participation of learners in their formation and development of the curriculum, and adjusts learning activities in accordance with their preferences and needs (Tudor, 1992). Exploring learners' beliefs can be seen as a preliminary step in creating a student-centred teaching and learning. Creation of a learner-centred setting requires exploration and understanding of learners' beliefs along with other variables. Within this framework, Bassano (1986) suggests teachers of languages four steps to treat beliefs of language learners:

1. Become aware of students' past classroom experiences and their assumptions about language learning;
2. Build students' confidence;
3. Begin where the students are and move slowly;
4. Show them achievement;
5. Allow for free choice as much as possible; and
6. Become aware of students' interests, concerns, goals and objectives (Bassano, 1986 cited in Bernat & Gvozdenko study, 2005:15).

2.3.1. Studies on Language Learning Beliefs

Many researchers naturally put much emphasis on FLL beliefs of learners as they are the most important figures of language learning medium (Yang, 1999; Matsuura, Chiba & Hilderbrandt, 2001; Al-Zubaidi & Sazalli, 2012; Naghdipour, 2014). Beliefs in terms of language learning have been examined since the 1980s (Cısdık, 2014). First studies related to language learning beliefs took an interest in showing personal differences between successful students and those of less successful (İnözü, 2017). Afterwards, the studies related to foreign language learning beliefs have focused on various features of language learning beliefs and a great deal of research has been carried out (Horwitz, 1985, 1987, 1988, 1999; Johnson, 1992; Cotteral, 1995; Kern 1995; Yang, 1999; Matsuura et al., 2001; Barcelos, 2010; Pan & Block, 2011; Al-

Zubaidi & Sazalli, 2012; Naghdipour, 2014). Peacock (1999) concerned whether language beliefs affect proficiency, while Matsuura et al., (2001) examined undergraduate students' beliefs about learning and teaching communicative English. Yang (1999) focused on language beliefs of university students and their relation to strategy use, while Horwitz (1999) were looking for similarities and differences across cultural groups.

The studies on FLL beliefs were categorized by some researchers in terms of their approach to the beliefs. Summarizing studies on learners' beliefs, Kalaja (1995) categorizes them as two approaches: current approach and alternative approach. Current approach views students' beliefs as cognitive, fixed, task oriented, personal and possibly not correct; they are students' views on varied aspects of language learning and determined via questionnaires, students' self-reports and interviews. On the other side, according to alternative approach, beliefs are discursive, variable and constructed socially in everyday talk or writing in a context. In the alternative approach, the researcher looks beyond a text or discourse by focusing on the extent that a learner use those beliefs in a piece of writing or in a talk using discourse analysis. On the other hand, Barcelos (2000) classified the studies on beliefs into three approaches: 1) the Normative Approach, 2) the Metacognitive Approach and 3) the Contextual Approach.

1. *The Normative Approach*: Language learning beliefs are regarded as prejudices, incorrect conceptions and views. They are investigated through Likert-scale questionnaires. The most widely used scale was developed by Horwitz (1987, 1988) called the Beliefs about Language Learning Inventory (BALLI).
2. *The Metacognitive Approach*: Foreign language learning beliefs are viewed as constant and fallible. Semi-structured interviews and self-reports are used to reveal learners' beliefs about language learning. Wenden's (1986, 1987) studies are examples of this approach.
3. *The Contextual Approach*: Foreign language learning beliefs are seen as the reflections of language learning in a society. Diaries, case studies, interviews, journal, narratives, and classroom observations are used to define learners' beliefs about language learning. Beliefs are viewed as context-specific; the approach aims to evaluate students' beliefs in their own contexts (Barcelos, 2000:45-65).

Horwitz (1985, 1988) seems to be one of the prominent researchers concerning language learning beliefs by developing the BALLI, which has been used in a great number of studies so far to reveal both teachers and students' language learning beliefs in second and foreign language learning contexts. Horwitz seems to have affected many other researchers to investigate language learning beliefs. The BALLI consists of 34 items and was developed to assess student' views about language learning in five main areas:

1. *Difficulty of language learning*: the general difficulty of learning a foreign language and the difficulty of the foreign language that learner aims to learn.
2. *Foreign language aptitude*: learners' abilities and potentials to learn a language; the characteristics of successful learners.
3. *The nature of language learning*: the role of culture, comparison of language learning to other types of learning and structural differences between English and target language.
4. *Learning and communication strategies*: real language learning practices.
5. *Motivations and expectations*: desires and opportunities that the learners associate with learning English.

BALLI does not have wrong or right answers, and learners' opinions for each item are treated singly, namely, a total score is not required for assessment. Except the BALLI, some other scales were also used in the research about FLL beliefs. One of them is that of by Cottrel (1995:196) consisting of 6 factors:

1. *Role of the teacher*: Learners' views on teachers' role as authority, counsellor or facilitator.
2. *Role of feedback*: learners' perceptions of the ways of feedback provided by the teacher.
3. *Learner independence*: Characteristics of active learners; autonomous learners and clearly defined goals.
4. *Learner confidence in study ability*: individual's assessment of his/her ability.

5. *Experience of language learning*: Learners' previous experience; their awareness of themselves, language learning and strategies.
6. *Approach to studying*: the behaviours which learners engage in as they study.

Language learning beliefs were investigated in varied contexts by several studies. Aiming to help instructors of *methods* course by revealing their students' language learning beliefs, Horwitz (1985) formed the Beliefs about Language Learning Inventory (BALLI). The study dealt with prospective teachers' FLL beliefs and suggested that an evaluation of students' language learning beliefs would simplify and ease learning. The scale would help teachers to determine their learners' beliefs and the beliefs of those learners who differ or are in the minority in terms of their language learning beliefs. The study revealed that the method students considered language learning being different from learning other school subjects and most of them believed that some languages are easier than others. The participants also stressed the importance of listening and repeating the target language a lot.

Since Horwitz (1985, 1988), many studies have been carried out concerning language learning beliefs. Cotteral (1995) investigated the relation between learner autonomy, which shows learners' ability of taking use of tactics for being responsible for their own learning and their learning beliefs. Cotteral implemented a questionnaire to 139 ESL students, and the study revealed that the learners had beliefs regarding role of teachers and their feedback; learners' independence, confidence, approach and experience of language learning.

Başaran (2010) focused on the effects of using podcasts on language learning beliefs and self-efficacy perceptions of university students after implementation of two instruments before and after the twelve week podcast-based language learning program. According to the outcomes of the study, the participants had varied language learning beliefs and podcasts had positive effects on learners' beliefs and their self-efficacy perceptions. The results of the BALLI demonstrated that most of the students believed that it is easier for children to learn a foreign language than adults, half of the participants disagreed that some people have a special ability of learning a foreign language, and most of the respondents believed they had a talent to learn a foreign language. The data gathered via interviews showed that many learners did not view learning a foreign language as a matter of aptitude. Majority of the learners considered

English as difficult, and they did not believe that they could learn English very well. One of the remarkable findings was that the respondents did not seem to be willing to have friends who are native speakers of English.

Fujiwara (2011) analysed the dimensional structure and cultural variations of language learning beliefs of EFL university students in Thailand. The results showed a five-factor structure consisting of learning and communication strategies, important aspects of language learning, expectations and difficulty of learning English, nature and aptitude of language learning and difficulty and ability of language learning. Majority of the respondent believed that learning English would provide them with a brighter future associated with their career. Most of the participants were willing to have friends who are native speakers of English. Many students were neutral that people who can speak more than two languages are intelligent and that women are better language learners than males.

Whether learners' language beliefs change over time was searched by Bahadır (2011). The findings revealed a small change of beliefs after implementation of a three-month intensive program. The students participated in this study believed in the importance of intense repetition and practice in English. Those who had positive FLL beliefs were also successful in examinations.

Inceci & Dollar (2011) investigated language learners' beliefs in terms of grammar teaching and error correction. The outcomes of the study revealed that university students valued grammar and regarded error correction as a helpful element; whereas, they were in favour of learning the language via communicative methods.

Examining Arab undergraduate learners of English, Al-Zubaidi & Sazalli (2012) demonstrated that the participants disagreed that learning English is difficult and majority of them believed that everyone could learn a foreign language. Majority of the respondents supported guessing the meaning of an unknown word. Likewise, a great number of the students were willing to practice English with someone speaking it. A high proportion of the learners considered reading and writing in English easier than speaking and listening.

Investigated Middle-school students' language learning beliefs in Korea, Jennifer & Park (2015) revealed that Korean middle-school students were willing to learn English and cultures. They were also eager to use and learn communicative strategies while learning English. However, they had negative beliefs about their ability in learning a language.

In a recently conducted study, Dincer (2017), through a metaphor analysis, investigated learners' beliefs about speaking in English and being a good speaker of English. Results showed that learners believed that speaking in English was enjoyable and that effort was needed for speaking skill. However, most of the learners regarded speaking as a very difficult task. On the other hand, according to the participants, a good speaker of English is the one who is fluent at speaking; they are wise, privileged and hardworking.

A distinctive study to elicit students' beliefs about foreign language learning was carried out in Turkey by İnözü (2017) by means of drawings. The young learners were asked to draw a picture about themselves as learners of English. The study used a qualitative image-based interpretative method and was supported by informal interviews in order to confirm the interpretations of the drawings. The findings revealed that young learners viewed learning English as a formal activity and their setting of learning as a formal place. The learners regarded their teacher as director of all the classroom activities and their roles in the classroom as those of inconspicuous participants. To the young learners participating in this study, learning English was the same as learning other school subjects, not a tool for communication.

2.3.2. Studies on Language Learners' Beliefs across Cultural Groups

Whether language learners' beliefs differ across cultural groups was dealt with by the researchers in some studies. Horwitz (1999) reviewed the studies, which used BALLI to determine similarities and differences across cultural groups who were American learners of French, Spanish, German, and Japanese; the US university instructors of French, and Korean; and Taiwanese and Turkish heritage EFL students. The study didn't identify any unambiguous differences in the groups examined, and a number of common beliefs were reported about language learning. Superiority of children in foreign language learning was supported by majority of the groups. Except the Taiwanese participants, all the other groups agreed that they could ultimately learn the target language very well. All the groups did not consider learning grammar the most significant part of learning a foreign language except the Turkish heritage learners.

Similarly, Truitt (1995) compared beliefs of Korean learners to those of American foreign language learners and reported that Korean learners belief were different from those of American EFL and ESL learners. The study implied that

learners' foreign language anxiety might stem from their beliefs about language learning. Half of the subjects in this study believed that everyone can speak a foreign language well, and more than half thought that they could speak a target language very well. Nevertheless, the results revealed that many Korean learners had lack of confidence about their language learning ability, especially in speaking and listening skills.

In another study, Ariogul, Unal & Onursal (2009) studied beliefs of three groups of language learners (English, German, French) and they explored that there was slight difference among groups. It was shown that the fixed beliefs that each group had might affect their learning process negatively in the long run. On the other hand, regarding the BALLI items, most of the participants believed in the importance of audio materials and practice in language learning. Interestingly, the participants of this study did not support the very common belief that one should live in the country where the target language is spoken for learning a foreign language best. Lastly, Fujiwara (2011), regarding cultural variations of beliefs, found that the Thai and the Taiwanese were similar in terms of their language learning beliefs' structure and had the similar pattern in the dimensional structure of their language learning beliefs.

2.3.3. Language Learners' Beliefs in Relation to Strategy Use

Some studies analysed the relationship between learners' language learning beliefs and their strategy use while learning a foreign language. Focusing on language learning beliefs of university students and their relation to strategy use, Yang (1999) found that the results were conflicting and these conflict affected strategy use. In terms of the nature and value of spoken English, students' beliefs were closely related to their strategies of practicing English verbally.

Suwanarak's (2012) study investigated beliefs, strategies and achievements of 220 graduate students doing their MA degree in Thailand through closed and open-ended questionnaires and interviews. The results showed diverse beliefs regarding English language learning and different and similar beliefs in terms of strategy use. Remarkably, a great number of the students thought that they were not successful in English.

Kayaoğlu (2013), in a Turkish context, compared good and poor undergraduate learners' language beliefs, the degree that they affect learners' behaviour, the difference

between learners' beliefs about different aspects of language learning and strategy use. The results of this study indicated that beliefs were effective on learners' behaviour and their strategy use, and good language learners had different beliefs from those of poor learners in terms of their perceptions of pronunciation, having private abilities and nature of language learning.

Preparatory university students' language learning beliefs in relation to their strategy use were studied by Geyimci (2015). The findings showed that learners were motivated in learning English and believed in the importance of learning it for their professional career. The participants considered learning vocabulary and grammar crucial in order to learn English. The learners who had positive beliefs about language learning used more strategies. Learners having difficulty in learning English tended to directly use strategies. Likewise, the strategies related to learning and communication factor were correlated with the memory metacognitive strategies, while beliefs about motivation and expectation dimension were significantly correlated with the metacognitive strategies.

2.3.4. Studies on Learners' Beliefs Regarding Gender and Field of Study

Bernat & Lloyd (2007) examined language learning beliefs in terms of gender. They revealed that males and females held similar beliefs, but they differed in the belief that multi-linguals are very intelligent; females agreed more with this belief. Majority of the participants accepted the superiority of children and some people have special ability in foreign language learning. Likewise, most of them thought that everyone can learn a foreign language. A large percentage of the subjects believed that it was important to speak English with an excellent pronunciation.

Rad's (2010) study examined the degree that independent variables such as gender, field of study and age influence learners of English. The analysis of the study indicated that the students strongly agreed with the beliefs presented under the motivation and nature of English factors, while beliefs about language aptitude did not seem to be a main concern as being slightly neutral. Likewise, learners' beliefs regarding difficulty of English language and learning and communication strategies were slightly strong. Gender difference was also found in terms of language learning strategy use. The male participants seemed to be more concerned about difficulty of language learning and learning communication strategy than females, but males were in

a higher position according to the mean values for the rest of the factors. Another outcome of the study was that Literature students' beliefs about three aspects of studying English, namely, aptitude, difficulty, and nature were at higher level than students of teaching; however, regarding motivation and strategy items teaching students posed higher results.

Likewise, a study regarding gender differences was carried out by Daif-Allah (2012) revealing that males and females had similar beliefs about language learning regarding the difficulty and the nature of language learning dimensions but significant gender differences related to English language aptitude, learning and communication, and motivation and expectations dimensions.

The relationship between EFL learners' beliefs and their writing ability considering gender differences as well was examined in a study by Javadi, Jahandar & Khodabandehlou (2012) in an Iranian context and a significant relationship was detected. Those students who had realistic and positive beliefs about language learning were found to be more successful in writing, while gender was not an effective factor in terms of writing ability.

Another study by Bagherzadeh (2012) in an Iranian context aimed to reveal FLL beliefs of non-English majors who were studying in biology, geography, accounting and science. The responses of the learners about the five dimensions of the BALLI were similar, but regarding the fields of study, their responses differed in terms of language aptitude dimension. For the rest of the factors, namely, for difficulty of language learning, the nature of language learning, and communication strategies and motivation no significant differences were determined. Likewise, the beliefs did not change in terms of gender.

Yazıcı (2014) found no significant differences between males and females while investigating university preparatory school learners' FLL beliefs. However, regarding the BALLI item that proposes that those who speak more than one language are very intelligent was supported stronger by the female students than males.

2.3.5. Studies about the Effective Factors on Learners' Beliefs

The factors that affect FL learners' beliefs were examined in the research, as well. Naghdipour (2014) reported language beliefs of Iranian undergraduate students who were studying in an international university in North Cyprus where Turkish is

spoken as the official language, through a survey and a semi-structured interview. The study indicated that the students' beliefs were affected by their previous learning experiences, and that socio-political factors in a learning context might also affect the way they shaped their beliefs, while their beliefs were slightly changed by their new language learning environment in comparison to their past beliefs in Iran.

Piquemal & Renaud (2006) investigated French university students beliefs comparing them across their grade levels. The results showed university students' language beliefs were related to internal factors more than social ones.

Yalçın (2013) purposed to reveal learners and teachers' beliefs of language learning and if teachers' beliefs were effective on those of learners. The findings of this study implied that teachers' beliefs and their implementations affected students' beliefs and similarly students' beliefs were disposed to imitating their teachers' beliefs. Cephe & Yalcin's (2015) study showed teachers' beliefs influenced learners' beliefs, changed them to some degree and learners' beliefs got closer to those of teachers' after taking courses for 5 months.

Agudo (2014) analysed learners' beliefs in a Spanish context. The outcomes pointed to the past classroom learning experiences that affected learners' beliefs in terms of EFL learning. On the other hand, Agudo's study found that not appeared learning prospects about language learning needs negatively affected Spanish learners learning outcomes. Likewise, Truitt (1995) found that foreign language beliefs of learners might be linked to background factors.

2.4. Epistemological Beliefs and Foreign Language Learning Beliefs

When the literature on foreign language learning is reviewed, it is seen that whether learners' foreign language learning beliefs are related to learners' epistemological beliefs is rarely investigated. One of the studies concerning this relationship was carried out by Mori (1999) who investigated language learners' epistemological beliefs and their language learning beliefs by conducting Schommer's epistemological beliefs questionnaire and a language learning belief questionnaire to 97 college students learning Japanese. The study revealed that individuals' belief in *certain knowledge* were transferred in language learning process, that is, those who believed in *certain knowledge* looked for coherency between mother tongue and target language. Learners' beliefs in *quick learning* and *fixed ability* found to be related to their attitudes

about taking risks when they try to communicate in a foreign language. Those who thought that learning is *quick or all-or-nothing* believed less that their mistakes in foreign language were helpful in the process of target language learning. In terms of communication in the foreign language, learners who believed that success is not associated with effort were less eager to communicate, and those who believed in quick learning inclined to think that learning a foreign language is easy. Briefly, Mori's study revealed that the participants' epistemological beliefs affected their language learning beliefs and their achievement in the language.

Another research in this area was conducted by Ziegler (2015). In the study, Ziegler implemented a qualitative research with first-grade international undergraduate students enrolled in ESL writing classes to examine the relation between epistemological beliefs and vocabulary knowledge. At the end of the research, the outcomes of interviews and writing prompts indicated that a good deal of students internalized improved epistemological beliefs (evaluativism) related to vocabulary knowledge, while a controversy associated with the resource and justification of vocabulary knowledge was detected. The participants' beliefs about certainty and simplicity of knowledge were more sophisticated than those of related to source of knowledge and justification of knowing dimensions. Ziegler's study also had following results:

- Participants had mixed beliefs about accuracy of vocabulary knowledge.
- Most of the participants believed that vocabulary knowledge comes from outer sources.
- Half of the participants showed sophisticated epistemic beliefs about the justification of vocabulary knowledge, while others had naive beliefs.
- English Language Learners had some sophisticated epistemic reasoning about vocabulary knowledge. However, they did not have sophisticated epistemic beliefs linked to justification of knowledge claims in their language learning, namely, the learners presumed that authorities have the most accurate meaning of vocabulary.

CHAPTER 3

METHODOLOGY

3.0. Introduction

Research methods indicate the ways that researchers lay out to gather data, analyse and interpret them in their studies (Creswell, 2009). Researchers collect data via instruments such as checklists, questionnaires, interviews, research sites, documents, records, films, and observations. In this study, it is aimed to unravel the relationship between epistemological and foreign language learning beliefs of university students. In this part, the methodology of this study, concise reports of the design, context of the research, data collection tools, participants and data analysis are presented.

3.1. Research Questions

The study has 5 research questions:

1. What are the epistemological beliefs of university students?
2. What are the language learning beliefs of university students?
3. Is there a statistically significant relationship between the epistemological and language learning beliefs of university students?
4. Is there any significant difference in the epistemological and foreign language learning beliefs of university students in terms of gender?
5. Is there any significance difference in the epistemological and foreign language learning beliefs of university students in terms of fields of study?

3.2. Context of the Study

This study was carried out at Şırnak University in Turkey. Şırnak University was founded in 2008. The university consists of four faculties (Faculty of Agriculture, Faculty of Engineering, Faculty of Economics and Administrative Science, Faculty of Theology) and four vocational schools; one is located in Şırnak city centre and one each in Silopi, Cizre and İdil districts of Şırnak city. The faculties have four undergraduate programs in total: Civil Engineering, Garden Plants, Theology and Economics. The vocational schools have varied programmes such as Child Development, Logistics,

Computer Programming, Machinery and International Trade. General English is taught as a compulsory course at first grades. The students who are enrolled in the programs of the faculties and vocational schools are generally from neighbouring cities and districts in the Southeastern Anatolia Region of Turkey. The learners' proficiency in English is generally beginner level. The instructors teach English for two hours a week at varied departments and faculties and they try to include four skills during the lesson time.

3.3. Research Design

The study relied on both quantitative and qualitative approach. In this sense, it can be regarded as mixed methods research, which is defined as an approach of inquiry that uses both qualitative and quantitative forms (Creswell, 2009). "The use of multi methods, or triangulation, reflects an attempt to secure an in-depth understanding of the phenomenon in question"(Denzin&Lincoln, 2011:5). In this regard, the rationale behind the use of both quantitative and qualitative methods was providing the study with a broader capture of the scenery, that is, a broader understanding of the views of the participants about their both epistemic and foreign language learning beliefs. The functions of a qualitative research following a quantitative data are defined by Hennink, Hutter and Bailey (2011) as a way of interpreting results of quantitative research, understanding a certain behaviour defined by the survey, knowing the decisions, behaviour, perceptions and motivations laying beneath. Thus, the qualitative data was used to support and get a deeper understanding of quantitative data collected through questionnaires.

Quantitative research is defined as "a means for testing objective theories by examining the relationship among variables" (Creswell, 2009:4). It includes a data-gathering process via prearranged questionnaires in order to get statistical data, the variables are measured via instruments and the numbered data are analyzed by statistical procedures (Creswell, 2009, 2013). On the other hand, Creswell defines qualitative research as a "means for exploring and understanding the meaning individuals or groups ascribe to a social or human problem" (p.4). In other words, it is an approach, which researchers use to examine people's experiences or perspectives via interviews, focus group discussions, observation, content analysis and biographies (Hennink, et al., 2011). In a qualitative approach, researcher tries to understand an issue from the points of views of participants via narrative designs such as open-ended interviewing, diaries, field notes, observations, etc. When viewed from these aspects,

the blended nature of this research provided an opportunity to implement a comprehensive inquiry.

For this purpose, a quantitative data gathering tool, namely, questionnaires; and a qualitative data collecting tool, interview, were benefited from to investigate the epistemological and foreign language learning beliefs of students studying at Şırnak University in Turkey and the relationship between the two.

3.4. Sampling and Participants

Since the purpose of the study was to reveal the relationship between the epistemological and FLL beliefs of university students, getting the opinions of those who were in the process of learning a foreign language, could bring to light better outcomes. On this frame, a total of 506 freshmen studying at Şırnak University from varied faculties and vocational schools in 2016-2017 academic year were targeted to participate and respond the questionnaires. From this point of view, the first-grade students represented the population of the research and it was aimed to reach the entire population to conduct the questionnaires.

General English is taught at the first year of the undergraduate and associate degree programs and departments for two terms as a compulsory course. The learners take English for two hours a week and four skills are intended to be taught during the class time. There were 506 students (313 males and 193 females) enrolled in the programmes of Şırnak University in the 2016-2017 academic year. Out of 506 first-grade students, 312 (162 females, 150 males) students were reached to fill in the questionnaires. However, 10 questionnaire forms for each scales (The BALLI, the EBQ) were eliminated as they were not filled appropriately or had missing parts. Thus, 302 questionnaire forms for each scale were assessed. Among these, 145 participants were males, and 157 were females who responded the BALLI and EBQ questionnaires (table 3.2.). The reasons behind not being able to reach all the students who were subject to this study were that a great number of those were absentees although they were enrolled in the programmes of Şırnak University and that a small number of the students were reluctant to fill out the questionnaires. The number of female participants filling the questionnaires surpassed the male participants although the number of males were higher than females according to the enrollment of the Students Affairs Office of the university due to the existence of the Child Development Programme (majority of

the registered students were female) at the vocational school in Şırnak city centre and 2 districts of it and the female students' being more willing to participate the classes.

Table 3.1. The Percentage of Males and Females Participated in the Study

Gender	N	%
Female	157	52
Male	145	48

Table 3.2. Demographic Data of the Participants Filled in the Questionnaires

Department	Male	Female	Total
Child Development	4	64	68
Electrical Device Technology	31	-	31
Computer Programming	13	6	19
Finance Banking&Assurance	8	13	21
Accounting and Tax Implementations	17	12	29
Logistics	7	7	14
Marketing&International Trade	10	3	13
Bureau Management and Executive Assistantship	8	15	23
Civil Engineering	10	4	14
Faculty of Theology	24	23	47
Economics	5	9	14
Machinery	7	1	8
Agricultural Engineering	1	-	1
General Total	145	157	302

In order to gain better insight into students' epistemic and language learning beliefs, structured interviews were also carried out with the chosen students. To ensure heterogeneity, the 54 interviewees (table 3.3.) were taken into consideration to be from varied programmes.

Table 3.3. Demographic Data of the Interviewees

Department	Male	Female	Total
Marketing&International Trade	4	1	5
Faculty of Theology	2	5	7
Civil Engineering	1	1	2
Economics	1	2	3
Finance Banking&Assurance	1	2	3
Accounting and Tax Implementations	3	4	7
Computer Programming	2	3	5
Child Development	-	11	11
Electrical Device Technology	8	-	8
Bureau	-	1	1
Management&ExecutiveAssistantship			
Logistics	1	1	2
General Total	23	26	54

3.5. Instruments/Data Collection

For the quantitative stage of the study, data collected through two questionnaires, which were the Beliefs about Language Learning Inventory (the BALLI) and the Epistemological Beliefs Questionnaire (the EBQ). As for the qualitative part, interviews were used in order to elicit students' epistemological and foreign language learning beliefs and to support the quantitative data. Thereby, the qualitative information in this study had a supportive role.

To reveal the epistemological beliefs, the Turkish version of Schommer's (1990) EBQ, which was adapted by Deryakulu and Büyüköztürk (2005), and for foreign language learning beliefs, Horwitz's (1988) BALLI were implemented. These questionnaires were introduced in details in the following section.

3.5.1. Epistemological Belief Questionnaire (EBQ)

Schommer's (1990) EBQ consists of 63 items and four dimensions: knowledge is best characterized as isolated facts (simple knowledge), knowledge is absolute (certain knowledge), the ability to learn is innate (innate ability) and learning is quick or

not-at-all (quick learning). The dimensions have 12 subsets. In this respect, the factors of the questionnaire are *Innate Ability*, *Quick Learning*, *Simple Knowledge* and *Certain Knowledge*. Learners are asked to rate their degree of agreement by pointing for each item on a scale from 1 (strongly disagree) to 5 (strongly agree). Twenty eight items of the questionnaire are negative; 35 items have positive codes (Schommer, 1990, 1993; Hofer & Pintrich, 1997; Deryakulu & Büyüköztürk, 2005). The high scores obtained on the dimensions show one's naïve beliefs; while the low score indicates sophisticated beliefs of the participants. The test-retest reliability was shown to be .74 and the reliability co-efficient found to be between .63 to .85.

3.5.2. The Turkish Version of Schommer's Epistemological Beliefs Questionnaire

Seeing the need for a scale measuring Turkish students and teachers' epistemological beliefs, Deryakulu & Büyüköztürk (2002) translated Schommer's Epistemological Belief Questionnaire into Turkish. In order to determine its validity and reliability in Turkish students, conducted a two-staged study and administered English and Turkish questionnaires in one week interval to 17 university students for the equivalency between both scales. Eight experts' critics were gotten in terms of language, content, measurement and evaluation. Later, the Turkish version of the questionnaire was implemented to a large group of students (595 students) from four universities in Turkey. The study revealed that the Turkish version of epistemological beliefs scale consisted of three factors with 35 items. The factors were named in accordance with Turkish culture as *the belief that learning depends on effort* (18 items), *the belief that learning depends on ability* (four items), and *the belief that there is only one truth* (nine items). As for reliability, Cronbach Alpha for the first factor was found to be .83, for the second .62, and for the third as .59, while in total it was .71. The scale is a five-point Likert-type ranging from (1) I absolutely disagree; (2) I disagree; (3) I have no idea; (4) I agree; to (5) I absolutely agree.

Later in their study, Deryakulu & Büyüköztürk (2005) administered a study to replicate the inventory. They determined to remove the 24th item from it and put the item 10 to the second factor from the first one. Upon this account, the second version had three factors with 34 items. Except these changes made, the scale was the same as it was determined in the first study. The factor one has 17 items with negative code, while the factor two (eight items) factor three (nine items) have positive codes. In the latter

study, the Cronbach Alpha was found as .84 for the first, .69 for the second, .64 for the third factor and .81 in total. The items are assessed based upon each factor, not generally based on a total score of the EBQ (Deryakulu & Büyüköztürk, 2002, 2005).

3.5.3. The Beliefs about Language Learning Inventory (BALLI)

The BALLI consisting of 34 items was developed by Horwitz (1988) to assess student' views about language learning in five main areas:

- 1) Difficulty of Language Learning (Items: 3, 4, 6, 14, 24, 28)
- 2) Foreign Language Aptitude (Items: 1, 2, 10, 15, 22, 29, 32, 33, 34)
- 3) The Nature of Language Learning (Items: 5, 8, 11, 16, 20, 25, 26)
- 4) Learning and Communication Strategies (Items: 7, 9, 12, 13, 17, 18, 19, 21)
- 5) Motivations and Expectations (Items: 23, 27, 30, 31)

The BALLI does not have wrong or right answers. Thirty-two items out of 34 are in a traditional five-point Likert scale arranging from 1 (Strongly Disagree) to 5 (Strongly Agree). However, two items (4, 14) aiming to reveal learners' ratings about the difficulty level of the target language they want to learn, and the amount of time they think is necessary to learn a foreign language fluently, have different response scale. Turkish versions of the questionnaires were given to the respondents regarding their inadequate English language proficiency. The Turkish version of the BALLI was used in Turkey in the studies by Başaran (2010), Cısdık (2014), and Geyimci (2015). The BALLI is not evaluated on the basis of a total score; students' opinions for each item are assessed separately.

3.5.4. Interviews

As a qualitative data-collecting tool, interview is conducted face-to-face, by telephoning, or researchers engage in a focus group with 6-8 interviewees to get opinions of participants through generally open-ended questions (Creswell, 2009). Interviews are used by researchers who believe that interviews may enhance their understanding of the topic they study (Maykut & Morehouse, 1994). In this sense, interviews were conducted in this study in order to get a broader understanding of learners' epistemological beliefs and their beliefs about foreign language learning.

A structured interview, in which data-collecting instruments are used, either face to face, by e-mails or telephone by asking the same questions to numerous participants. The interviews were conducted in Turkish in order to make students feel comfortable and clearly state their opinions. The questions were checked by two experts in terms of clarity and intelligibility to prevent multiple meanings and not to be in the form of leading questions that direct replies of participants. The questions were also checked by a Turkish language instructor.

For the purpose of being certain about the clarity and comprehensibility of the questions from the perspective of the students, 5 volunteer students were asked to answer the questions before conducting the actual interviews. According to the answers of these students, some changes were made in the questions for better outcomes.

The students answered the standardized open-ended questions in writing as we believed that they could express their opinions better in writing. The open-ended questions allow the interviewee to express his/her opinions about the topic without restriction. This is surely important in order to get as much information as possible. However, in order to avoid the digression, we focused the questions on the topic that we aimed to investigate. The standardized open-ended questions were in two parts; the first part questions were about learners' epistemological beliefs, while the second part questions were asked to elicit their beliefs about foreign language learning. The open-ended questions were formed in accordance with the questionnaire items.

3.6. Procedure of the Study

The questionnaire forms were copied and distributed to each student and they were asked to choose best option identifying their opinion best for each of the questionnaire item from the five-point scale arranging from 1 (Strongly Disagree) to 5 (Strongly Agree). The questionnaires were conducted by the instructors teaching English in classrooms at Şırnak University. The researcher informed the respondents about how they were going to fill the questionnaires and their questions were answered. They were warned that they were required to rate for all the items of the questionnaires and not to leave any parts of the questionnaires unfilled. The instructors were also asked to be careful hereof. However, those who were unwilling were not forced to fill out the questionnaires.

For the interviews, prior to the implementation, the chosen participants informed about the purpose of the study and the interview questions. They were asked whether they had any questions before answering the open-ended interview questions. The participants were assured that the information they gave would be kept confidential; in this way, we aimed to make the participants feel free and elicit valid and reliable data.

3.7. Data Analysis

The Statistical Program for Social Science (SPSS) 20.0 was used to analyze the data collected through the questionnaires. Descriptive statistics, means, standard deviations, correlations, independent sample t-tests, and Pearson correlation analysis were used to analyze the results. In order to determine whether the data was distributed normally, the Kolmogorov Smirnov test was applied. The result for Epistemological Belief Questionnaire (the EBQ) was $K-S(z) = 0,92; p > 0,05$ and it was $K-S(z) = 2,089; p > 0,05$ for Foreign Language Learning Beliefs Inventory (the BALLI). The data was normally distributed and therefore, independent sample t-test was implemented to analyse the relation between the two variables. On the other hand, to reveal whether the relationship between epistemological beliefs and foreign language beliefs is significant, Pearson correlation analysis was used. In the analysis of the data, .05 level of significant was chosen.

The significant points of the data were presented in tables in accordance with the APA formats for evaluation. The mean scores, frequencies and independent sample t-test, which is used to compare the mean scores of two different and independent groups were put to use to for analysis. Likewise, Pearson correlation analysis was benefited to reveal the relationship between the participants' epistemological and FLL beliefs.

The EBQ does not give a total score, instead, it is assessed based upon each factor. Therefore, a factor-based evaluation was carried out. The higher scores from the EBQ demonstrate the less sophisticated beliefs, whereas the lower scores show more sophisticated beliefs of the participants. The factor 1 of the EBQ has 17 items with negative code. For this reason, these items were re-coded by reversed order. The students' agreement levels for these negative items of the factor 1 were evaluated as stated below:

Strongly Agree	1.00 – 1.79
Agree	1.80 – 2.59

No Idea	2.60 – 3.39
Disagree	3.40 – 4.19
Strongly Disagree	4.20 – 5.00

However, for the rest of the items (the factor 2 and 3), which are positive, the accepted range presented below was used (Kılıçoğlu & Altun; 2002):

Strongly Agree	5.00 – 4.20
Agree	4.19 – 3.40
No Idea	3.39 – 2.60
Disagree	2.59 – 1.80
Strongly Disagree	1.79 – 1.00 (cited in Rakıcioğlu study, 2005).

The BALLI, likewise, is not assessed on the base of a total score, as well; each item is evaluated separately, and overall frequencies, mean scores, and standard deviations were given in tabulations for each of the categories of the BALLI. The BALLI items were also evaluated based on the accepted range.

Another data collecting tool for this study was interview. As for analysis of the data gathered by interviews, Creswell (2009:185-189) suggests a linear approach for qualitative data analysis including following steps:

- Organize and prepare the data for analysis (transcribing interviews, sorting and arranging the data into different types).
- Read through all the data (getting a general sense of the information)
- Begin detailed analysis with a coding process.
- Use the coding process to generate a description of the setting or people as well as categories or themes for analysis.
- Advance how the description and themes will be represented in the qualitative narrative.
- Make an interpretation or meaning of the data.

These guiding steps were utilized and we analyzed the data gathered through interviews with each of the participants by applying a content analysis technique. Firstly, the answers for each question were treated separately, however, the related ones combined together later. Firstly, the codes were defined. Based on the codes, the sub-categories were determined and they were classified under main categories. An expert colleague also examined the codes and categories for certain results.

3.8. Reliability

For the quantitative part of the study, the Cronbach Alpha scores for each questionnaire were determined. The Cronbach Alpha Coefficient of correlation for epistemological beliefs scale was found to be 0.75. On the other hand, Cronbach Alpha Coefficient of correlation for the BALLI was determined as 0.81.

As for the qualitative part of the study, the data was double checked if there were any mistakes. The *intercoder agreement* procedure that is whether two or more coders agree on the codes for the same text by cross-checking the codes was followed to assure the reliability (Creswell, 2009). Therefore, in order to ensure the reliability of the data collected via semi-structured interviews, a colleague's help was gotten, and after the comparison of the classification it was seen that the coders had sufficient agreement on the codes. On the other hand, for validity of the study, an *external auditor* strategy which is defined as “an objective assessment of the project throughout the process of research or at the conclusion of the study” (Creswell, 2009:192) was utilized. For this purpose, an independent person reviewed the data in terms of accuracy of the analysis and the interpretations of the data.

CHAPTER 4

FINDINGS AND RESULTS

4.0. Introduction

The purpose of this study was to reveal the relationship between the epistemological and foreign language learning beliefs of university students. This part indicates the results gathered by the BALLI and the EBQ. The descriptive analyses, namely, the percentages, mean scores, standards deviations, independent sample t-tests comparing gender differences and the Pearson r correlation analysis concerning the relationship between the epistemological and FLL beliefs of the learners are presented. This part also comprises the results of the qualitative data collected through interviews.

4.1. Findings about the First Research Question: What are the Epistemological Beliefs of University Students?

In order to demonstrate learners' epistemological beliefs, the Turkish version of Schommer's (1990) EBQ adapted by Deryakulu and Büyüköztürk (2005) was implemented. The EBQ consists of three factors: *the belief that learning depends on effort*, *the belief that learning depends on ability*, and *the belief that there is only one truth*. The findings of each dimension of the EBQ were presented separately, the mean scores, standard deviations for each item and for each dimension in general were shown in tables. The results were assessed on the basis of the dimensions. The high total mean scores of the dimensions show unsophisticated beliefs, whereas, the low total mean scores indicate sophisticated epistemic beliefs of the participants. Students' agreement levels were determined according to the arrangement presented in the methodology part (See Section 3.8.).

The Epistemological Beliefs of the Learners in terms of the Factor 1 (the Belief that Learning Depends on Effort)

University students' beliefs about *the belief that learning depends on effort* dimension of the Epistemological Beliefs Questionnaire are demonstrated in table 4.1. This first factor of the EBQ consists of 17 negative items. Therefore, they were reverse

coded as (1) *Strongly Agree* (2) *Agree* (3) *No Idea* (4) *Disagree* (5) *Strongly Disagree*.
Table 4 indicates the findings associated with this factor.

Table 4.1 Learners' Beliefs about Effort in Learning

Items*	N	$\bar{X}$	Sd.	Level of Agreement
1. A course in study skills would probably be valuable.	302	2,11	1.23	Agree
2. I often wonder how much my teachers really know.	302	2,15	1.12	Agree
3. The most successful people have discovered how to improve their ability to learn.	302	2,00	1.16	Agree
4. To me studying means getting the big ideas from the text, rather than details.	302	2,09	1.11	Agree
5. The most important part of scientific work is original thinking.	302	2,12	1.10	Agree
6. If I find the time to re-read a textbook chapter, I get a lot more out of it the second time.	302	2,15	1.14	Agree
7. Students have a lot of control over how much they can get out of a textbook.	302	2,50	1.32	Agree
8. I find it refreshing to think about issues that authorities can't agree on.	302	2,48	1.00	Agree
9. Everyone needs to learn how to learn.	302	2,00	1.05	Agree
10. Wisdom is not knowing the answers, but knowing how to find the answers.	302	1,95	1.06	Agree
11. If a person can't understand something within a short amount of time, they should keep on trying.	302	1,74	1.98	Strongly Agree
12. You should evaluate the accuracy of information in a textbook, if you are familiar with the topic.	302	2,34	1.19	Agree
13. Often, even advice from experts should be questioned.	302	2,01	1.12	Agree
14. Usually you can figure out difficult concepts if you eliminate all outside distractions and really concentrate.	302	2,13	1.07	Agree
15. A really good way to understand a textbook is to re-organize the information according to your own personal scheme.	302	2,80	1.25	No Idea
16. Learning is a slow process of building up knowledge.	302	2,00	1.06	Agree
17. Today's facts may be tomorrow's fictions.	302	2,29	1.23	Agree
Total	302	2,16	1,18	Agree

(*): *Negative items reverse coded: 1=Strongly Agree, 2=Agree, 3= No Idea, 4= Disagree 5= Strongly Disagree*

When we look at the total mean score ($m=2, 16$) for *the belief that learning depends on effort* dimension (the factor 1), it is seen that the students generally agreed on the dimension. In other word, this shows that the participants believed that learning depends on effort. The mean scores of the items were closely approximate. Except the 15th item ($m=2, 80$), “A really good way to understand a textbook is to re-organize the information according to your own personal scheme”, which the students had no idea about, the participants generally agreed on the rest of the items. For the 11th statement, “If a person can’t understand something within a short amount of time, they should keep on trying”, the participants had the strongest agreement ($m=1, 74$). Another item (the 10th item; $m=1, 95$) that the participants overwhelmingly supported was that “Wisdom is not knowing the answers, but knowing how to find the answers”.

Likewise, the item 3 ($m=2, 00$) “The most successful people have discovered how to improve their ability to learn”; the item 9 ($m=2, 00$) “Everyone needs to learn how to learn”; the item 13 ($m= 2, 01$) “Often, even advice from experts should be questioned”; and the item 16 ($m=2, 00$) “Learning is a slow process of building up knowledge” put forward clearly that the participants’ supported the belief that learning depends on effort. In spite of the agreement on the item 7 “Students have a lot of control over how much they can get out of a textbook” and the item 8 “I find it refreshing to think about issues that authorities can’t agree on”, the mean scores for these items ($m=2, 50$; $m= 2, 48$ respectively) also showed that a remarkable number of the students were not sure about the statements.

According to the EBQ, high mean scores signifies naïve beliefs, while low mean scores mean developed epistemic beliefs. The results are evaluated on the basis of the factors. In that respect, the mean scores of the overall items and the total mean score ($m=2, 16$) shows that the students had sophisticated beliefs in terms of the factor 1. In other word, they believed that learning depends on effort; thus, they believed that with an effort they could develop their learning abilities.

The Epistemological Beliefs of the Learners in terms of the Factor 2 (the Belief that Learning Depends on Ability)

University students’ beliefs about *the belief that learning depends on ability* dimension of the EBQ (Factor 2) has 8 positive items, and the scale was arranged in a

normal order as 1) *Strongly Disagree*, 2) *Disagree*, 3) *No Idea*, 4) *Agree*, 5) *Strongly Agree*. Table 4.2 shows the results for this dimension.

Table 4.2 Learners' Beliefs about Ability in Learning

Items*	N	$\bar{X}$	Sd	Level of Agreement
18. Being a good student generally involves memorizing facts.	302	2,14	1.16	Disagree
19. Sometimes you just have to accept answers from a teacher even though you don't understand them.	302	2,16	1.29	Disagree
20. Some people are born good learners; others are just stuck with limited ability.	302	2,33	1.36	Disagree
21. The really smart students don't have to work hard to do well in school.	302	2,35	1.31	Disagree
22. Working hard on a difficult problem for an extended period of time only pays off for really smart students.	302	2,10	1.19	Disagree
23. If a person tries too hard to understand a problem, he will most likely just end up being confused.	302	2,70	1.20	No Idea
24. Students who are "average" in school will remain "average" for the rest of their lives.	302	2,61	1.20	No Idea
25. You will just get confused if you try to integrate new ideas in a textbook with knowledge you already have about a topic.	302	2,75	1.12	No Idea
Total	302	2,39	1.22	Disagree

(*): *Positive items: 1= Strongly Disagree 2= Disagree 3= No Idea 4= Agree 5=Strongly Agree*

The total mean score for *the belief that learning depends on ability* dimension (the factor 2) is 2, 39, which corresponds to *Disagree* level. This mean score indicates that the participants generally disagreed with the belief that learning depends on ability. This score is consonant with the factor 1 (learning depends on effort), on which the participants agreed that learning depends on effort.

This finding shows that the participants had sophisticated beliefs about the factor 2, as the total mean score ($m=2, 39$) is a low mean score and demonstrates *Disagree level*. Low mean scores signify developed epistemological beliefs.

However, for the statement 23rd ($m=2,70$) "If a person tries too hard to understand a problem, he will most likely just end up being confused", the statement 24th ($m=2, 61$) "Students who are 'average' in school will remain 'average' for the rest

of their lives” and the statement 25th (m=2,75) “You will just get confused if you try to integrate new ideas in a textbook with knowledge you already have about a topic”, the students generally seemed to be indecisive.

The highest disagreement is for the 18th item (m= 2, 14) “Being a good student generally involves memorizing facts.” This was the most sophisticated belief that the students posed regarding the factor 2. Likewise, the learners generally disagreed with the statement 19th “Sometimes you just have to accept answers from a teacher even though you don’t understand them” and the 22nd “Working hard on a difficult problem for an extended period of time only pays off for really smart students.”

The Epistemological Beliefs of the Learners in terms of the Factor 3 (the Belief That There is Only One Truth).

The university students’ beliefs about *the belief that there is only one truth* dimension of the EBQ (the factor 3) has 9 positive items and the scale was arranged in a normal order as 1) *Strongly Disagree*, 2) *Disagree*, 3) *No Idea*, 4) *Agree*, 5) *Strongly Agree*. Table 4.3 shows the results for this factor.

Table 4.3 Learners' Beliefs about Singularity of Truth

Items*	N	$\bar{X}$	Sd	Level of Agreement
26. A good teacher's job is to keep his students from wandering from the right track.	302	2,49	1.37	Disagree
27. If scientists try hard enough, they can find the truth to almost anything.	302	3,15	1.26	No Idea
28. Most words have one clear meaning.	302	3,11	1.23	No Idea
29. Truth is unchanging.	302	3,04	1.41	No Idea
30. Whenever I encounter a difficult problem in life, I consult with my parents.	302	3,29	1.36	No Idea
31. I don't like movies that don't have an ending.	302	3,46	1.40	Agree
32. It's waste of time to work on problems which have no possibility of coming out with a clear-cut and unambiguous answer.	302	2,78	1.26	No Idea
33. I really appreciate instructors who organize their lectures meticulously and then stick to their plan.	302	4,05	1.19	Agree
34. The best thing about science courses is that most problems have only one right answer.	302	3,28	.93	No Idea
Total Mean Score	302	3,18	1.26	No Idea

(*): Positive items: 1= Strongly Disagree 2= Disagree 3= No Idea 4= Agree 5=Strongly Agree

When we analyse the items of the factor 3, *the belief that there is only one truth* of epistemological beliefs questionnaire, it is obviously seen that the learners were undecided about most of the items. The total mean score (m= 3, 18) shows this irresolution. In other word, they had mixed ideas about the statements of this dimension. For instance, the findings of the item 27 (m=3, 15) "If scientists try hard enough, they can find the truth to almost anything"; the item 28th (m=3, 11) "Most words have one clear meaning"; and the item 29 (m=3, 04) "Truth is unchanging", showed that the student did not have a consensus on the statements. Nevertheless, although the students seemed to be uncertain according to the total finding, when we consider that low mean scores mean sophisticated epistemological beliefs according to the EBQ, we can state that the students held neither sophisticated nor naïve beliefs in terms of *the belief that there is only one truth* dimension of epistemic beliefs.

The highest mean score was for the item 33 (m=4, 05), "I really appreciate instructors who organize their lectures meticulously and then stick to their plan" means

a naïve belief that the participants held as the mean score was high. Likewise, the 31st item (m=3, 46) “I don’t like movies that don’t have an ending” reveals an undeveloped belief of the participants. The only *Disagree* under this factor was for the 26th item (m=2, 49) “A good teacher’s job is to keep his students from wandering from the right track” indicating the students’ developed belief.

4.2. Findings about the Second Research Question: What are the Foreign Language Learning Beliefs of University Students?

In order to demonstrate learners’ FLL beliefs, Horwitz’s (1988) BALLI was implemented. The BALLI consists of five dimensions: *the Difficulty of Language Learning*, *Foreign Language Aptitude*, *the Nature of Language Learning*, *Learning and Communication Strategies* and *Motivations and Expectations*. The findings of each area of the BALLI were presented separately, and the percentage, mean scores, standard deviations for each items were given in tables. The scale was ranged as 1) *Strongly Disagree*, 2) *Disagree*, 3) *No Idea*, 4) *Agree*, and 5) *Strongly Agree*. The total percentages of disagreement (*Strongly Disagree*, *Disagree*) and agreement (*Strongly Agree*, *Agree*) were shown in the tables. The BALLI items were assessed individually; not on the basis of a total score.

Learners’ Beliefs about Difficulty of Language Learning

The university students’ beliefs about the *Difficulty of Language Learning* dimension of the BALLI were presented in table 4.4. This dimension consists of six items. The results were presented in table 4.5. However, the results for the item 4, which measures the learners’ difficulty perception of English and item 14, which asks for learners’ opinions about the time needed for fluency in English were presented in a separate section as they had different response scales. The results for these two items were presented from 1 to 5 on the scale in percentages, whereas the results for the other items were given by combining the percentages of “agrees” and “strongly agrees” and those of “disagrees” and “strongly disagrees.”

Table 4.4 Learners' Beliefs about Difficulty of Language Learning

Items*	N	$\bar{X}$	Sd	(%) SD/D (1,2)	(%) NI (3)	(%) A/SA (4,5)	Level of Agreement
3. Some languages are easier to learn than the others.	302	3,86	1.09	12,3	13,9	73,8	Agree
6. I believe that I will ultimately learn to speak this language very well.	302	3,51	1.16	21,2	20,5	58,03	Agree
24. It is easier to speak than understand a foreign language.	302	3,06	1.13	32,1	29,8	38,0	No Idea
28. It is easier to read and write this language than to speak and understand it.	302	3,19	1.21	28,8	27,8	43,4	No Idea

(*) 1=Strongly Disagree 2=Disagree 3=No Idea 4=Agree 5=Strongly Agree

Table 4.5 Beliefs about Difficulty of English and Duration for Fluency

Items	N	$\bar{X}$	Sd.	1	2	3	4	5
4.The language I am trying to learn is: (1)very difficult,(2)difficult,(3)medium difficulty, (4)easy, (5) very easy	302	2,79	.97	10,6	23,5	46,0	15,6	4,3
14. If someone spends one hour a day learning a language, how long would it take him/her to become fluent? (1) less than a year, (2) 1-2 years, (3) 3-5 years, (4) 5-10 years, (5) you cannot learn a language in 1 hour a day	302	2,68	1.22	17,9	29,5	30,8	9,6	12,3

The analysis of the *difficulty of language learning* dimension of the BALLI indicated that most of the students (73, 8 %) supported the idea that “Some languages are easier to learn than the others” (item 3). This finding shows that the participants believed that the difficulty of language learning depends on the foreign language being learned. Likewise, the result for the item 6 (58, 03 %) showed that the students

generally believed that they would finally learn to speak English very well. That is, they were self-confident about learning English in the future.

About the difficulty of the target language, 46 % of the participants rated that the language they tried to learn (English) was of medium difficulty. The percentage of those who viewed English as a difficult language was 23, 5 %. The mean score for this item ($m=2, 79$) implies that the participants' perception of difficulty of English accumulated in the mid of the difficulty continuum. On the other hand, as for duration of learning a foreign language, the mean score ($m=2, 68$) also pointed out a middle length of time. For this item, 30, 8 % reported that 3-5 years were needed to be fluent in the language. As an approximate finding to that, 29, 5 % thought that "1-2 years" would be enough for fluency. A considerable number estimated the time needed as less than one year (17, 9 %).

The scores for the 24th item ($m=3, 06$) "It is easier to speak than understand a foreign language", and the 28th item ($m=3, 19$) "It is easier to read and write this language than to speak and understand it" revealed that the learners mostly were undecided. In other word, they seemed to be unclear about the easier aspects of learning English.

Learners' Beliefs about Foreign Language Aptitude

Table 4.5 shows the university students' beliefs about the *foreign language aptitude* dimension of the BALLI. This factor includes nine items.

Table 4.6 Learners' Beliefs about Foreign Language Aptitude

Items	N	$\bar{X}$	Sd	(%) SD/D (1,2)	(%) NI (3)	(%) A/S A (4,5)	Level of Agreement
1. It is easier for children than adults to learn a foreign language.	302	4,03	1.22	14,6	7,6	77,8	Agree
2. Some people are born with a special ability which helps them learn a foreign language.	302	2,95	1.18	39,7	23,8	36,5	No Idea
10. It is easier for someone who already speaks a foreign language to learn another one.	302	3,27	1.15	27,8	25,8	46,4	No Idea
15. I have a foreign language aptitude.	302	3,34	1.18	25,2	19,5	55,3	No Idea
22. Women are better than men at learning foreign languages.	302	2,83	1.11	34,1	43,1	22,8	No Idea
29. People who are good at math and science are good at learning foreign languages.	302	2,54	1.05	44,4	41,4	14,2	Disagree
32. People who speak more than one language well are very intelligent.	302	3,21	1.23	32,8	19,9	47,4	No Idea
33. Turkish people are good at learning foreign languages.	302	2,85	1.11	34,8	39,1	26,1	No Idea
34. Everyone can learn to speak a foreign language.	302	4,07	1.14	11,6	5,3	83,1	Agree

(*) 1=Strongly Disagree 2=Disagree 3=No Idea 4=Agree 5=Strongly Agree

It is obviously seen that the participants were generally undecided about most of the items of *Foreign Language Aptitude* dimension. In other word, it can be stated that the students were generally indecisive about the role of aptitude in foreign language learning.

The students agreed on the item 1 (77, 8 %) "It is easier for children than adults to learn a foreign language" and the item 34 (83, 1 %) "Everyone can learn to speak a foreign language." The learners' agreement on the item 1 indicates that they believed in importance of early exposure and encounter to foreign language. On the other hand,

their agreement on the item 34 reveals that the students did not view foreign language learning as a matter of aptitude.

The only item that the participants disagreed was the 29th item (m=2, 54), which is, “People, who are good at math and science are good at learning foreign languages”. A remarkable number of the learners (41, 4%) were neutral about this item. More than half (55, 3 %) rated they had a foreign language aptitude. However, as the mean (m=3, 34) for this statement (item 15) implies many learners disagreed (25, 2 %) or were neutral (19, 5%). Likewise, there wasn't a consensus on the idea that some people have an inborn special ability helping them learn a foreign language as item 2 (m=2, 95) suggests. Similarly, they were neutral about the statement (m=2, 83) that “Women are better than men at learning foreign languages” (item 22). The item 33 (m=2, 85) that “Turkish people are good at learning foreign languages” was another statement that the learners were uncertain about.

Whether speaking more than one language is a sign of intelligence was another proposal (item 32) that the participant were undecided about. Nevertheless, 47, 4 % accepted that speaking more than one language is a sign of intelligence, while 32, 8 % rejected. Lastly, about the statement (the item 10) “it is easier for someone who already speaks a foreign language to learn another one” 46, 4 % rated that they agreed on. However, the general results for this statement revealed indecision (m=3, 27).

Learners' Beliefs about the Nature of Language Learning

The university students' beliefs about the *Nature of Language Learning* dimension of the BALLI were displayed in table 4.7 below. The factor consists of seven items.

Table 4.7 Learners' Beliefs about The Nature of Language Learning

Items	N	$\bar{X}$	Sd	(%) SD/ D (1,2)	(%) NI (3)	(%) A/S A (4,5)	Level of Agreement
5. The language I am trying to learn is structured in the same way as Turkish.	302	2,50	1.29	59,6	12,9	27,5	Disagree
8. It is necessary to know the foreign culture in order to speak the foreign language.	302	2,95	1.28	43,7	16,9	39,4	No Idea
11. It is better to learn a foreign language in the foreign country.	302	3,80	1.30	20,5	8,6	70,9	Agree
16. Learning a foreign language is mostly a matter of learning many new vocabulary words.	302	3,94	1.08	11,6	9,3	79,1	Agree
20. Learning a foreign language is mostly a matter of learning many grammar rules.	302	3,40	1.19	22,8	23,2	54	Agree
25. Learning a foreign language is different from learning other school subjects.	302	3,62	1.12	16,6	17,2	66,2	Agree
26. Learning a foreign language is mostly a matter of translating from English.	302	3,70	1.07	16,2	13,6	70,2	Agree

(*) 1=Strongly Disagree 2=Disagree 3=No Idea 4=Agree 5=Strongly Agree

The remarkable results about this dimension of language learning were that the participants viewed learning English as a matter of learning many new words (the 16th item: 79, 1 %), grammar rules (the 20th item: 54 %), and translating from English (the 26th item: 70, 2%). These findings indicate that the students minded these aspects in their language learning process.

Not surprisingly, majority of the students (70, 9) reported that learning the language in a foreign country as a better way of learning (item 11). However, about the necessity of knowing the foreign culture for speaking the language, the participants seemed to be uncertain (m=2, 95; item 8). On the other hand, the learners disagreed that the language they aimed to learn is structured as Turkish (59, 6 %). The item 25 that is

“Learning a foreign language is different form learning other school subjects” is another one that the learners agreed upon (66, 2 %).

Learners’ Beliefs about Learning and Communication Strategies

The *learning and communication strategies* dimension of the BALLI has eight items. The *Learning Strategies* section consists of the item 17 and 21, whereas the *Communication Strategies* section has item 7, 9, 12, 13, 18, and 19. The outcomes of this factor are presented below in table 4.8.

Table 4.8 Learners’ Beliefs about Learning and Communication Strategies

Items	N	$\bar{X}$	Sd	(%) SD/ D (1,2)	(%) NI (3)	(%) A/S A (4,5)	Level of Agreement
<i>Learning Strategies</i>							
17. It is important to repeat and practise often.	302	4,25	1.08	9,3	4,0	86,7	Strongly Agree
21. It is important to practise in the language laboratory.	302	3,59	1.10	15,2	24,2	60,6	Agree
<i>Communication Strategies</i>							
7. It is important to speak a foreign language with an excellent accent.	302	3,53	1.23	25,8	11,6	62,6	Agree
9. You should say nothing in the foreign language until you say it correctly.	302	2,23	1.19	69,5	11,9	18,6	Disagree
12. If I heard someone speaking the language I am trying to learn, I would go up to them so that I could practise speaking the language.	302	3,63	1.12	16,9	12,9	70,2	Agree
13. It is ok to guess if you do not know a word in the foreign language.	302	3,20	1.19	29,5	22,5	48,0	No Idea
18. I feel self-conscious speaking the foreign language in front of other people.	302	2,60	1.26	58,9	12,6	28,5	No Idea
19. If you are allowed to make mistakes in the beginning, it will be hard to get rid of them later on.	302	2,99	1.29	40,1	19,9	40,0	No Idea

(*) 1=Strongly Disagree 2=Disagree 3=No Idea 4=Agree 5=Strongly Agree

When we analyse the statements associated with the communication strategies, we find out that the students were willing to communicate by means of the target language. For example, the 12th (70, 2 %) “If I heard someone speaking the language I am trying to learn, I would go up to them so that I could practise speaking the language” displayed they were aware of the importance using the language and that their eagerness to speak the language. Likewise, the proportion of disagreement (58, 9 %) for the 18th item “I feel self-conscious speaking the foreign language in front of other people” demonstrated that many participants had self-confidence in speaking English, though 28 % reported they would feel timid.

Similarly, one of the statement that the learners disagreed (69, 5%) with was that of proposing that “You should say nothing in the foreign language until you say it correctly” (the item 9) can be assessed as they minded practice rather than accuracy. The mean (m=2,99) for 19th statement, that is, “If you are allowed to make mistakes in the beginning, it will be hard to get rid of them later on” revealed that they were not sure about the difficulty of getting rid of mistakes later when they proceed in foreign language learning. The result of the 7th item (62, 6 %) “It is important to speak a foreign language with an excellent accent” indicated that they wanted to speak the target language properly.

Although the mean score for the 13th item (m=3,20) “It is ok to guess if you do not know a word in the foreign language”, which is categorized under the communication strategies section, pointed out to an indecision on the statement, the percentage of agreement (48 %) demonstrated that many learners were in favour of guessing unknown words.

On the other hand, the findings regarding learning strategies, the 17th item (86, 7%) “It is important to repeat and practise often” and 21st item (60, 6 %) “It is important to practise in the language laboratory” displayed that the learners valued the usage and practice of the language as they agreed on the both statements.

Learners’ Beliefs about Motivations and Expectations

The participants’ beliefs regarding the *Motivations and Expectations* dimension of the BALLI were introduced in table 4.9. The factor consists of four items.

Table 4.9 Learners' Beliefs about Motivations and Expectations

Items	N	$\bar{X}$	Sd	(%) SD/D (1,2)	(%) NI (3)	(%) A/SA (4,5)	Level of Agreement
23. If I speak this language very well, I will have many opportunities to use it.	302	3,96	1.13	12,3	11,6	76,1	Agree
27. If I learn to speak this language very well, it will help me get a good job.	302	4,11	1.04	8,6	10,6	80,8	Agree
30. Turkish people think that it is important to speak a foreign language.	302	3,58	1.03	13,9	26,5	59,6	Agree
31. I would like to learn this language so that I can get to know the speakers better.	302	3,33	1.16	28,1	19,9	52,0	No Idea
(*) 1=Strongly Disagree 2=Disagree 3=No Idea 4=Agree 5=Strongly Agree							

Table 8 reveals the results in relation to *Motivations and expectations* factor of the BALLI. The overall outcomes of this dimension revealed that the students were generally motivated and had positive expectations about learning and speaking English. The table indicates that 76, 1 % of the students believed that speaking English well would provide them with many opportunities to use it (the item 23) and help them get a good job (the item 27th: 80, 8 %).

The finding of the 30th item “Turkish people think that it is important to speak a foreign language” was 59, 6 %, which showed the respondents agreed on the statement. The only item that the participants seemed to be neutral according to the mean score (m=3, 33) was the 31st item “I would like to learn this language so that I can get to know the speakers better”. However, 52 % of the participants agreed on that they wanted to learn English in order to get the speakers of it better.

4.3. Findings about the third Research Question: Is There a Statistically Significant Relationship between the Epistemological Beliefs and Foreign Language Learning Beliefs of University Students?

The relationship between the students' epistemological and language learning beliefs were determined by Pearson correlation coefficient. The result was presented in table 4.10.

Table 4.10 The Relationship between Students' Epistemological and FLL Beliefs (Pearson Correlation Coefficient)

		Epistemological beliefs	Foreign language learning beliefs
<i>Epistemological beliefs</i>	Pearson Correlation	1.00	-,181 **
	Sig. (2-tailed)		0,00*
	N	302	302
<i>Foreign language learning beliefs</i>	Pearson Correlation	-0,181 **	1.00
	Sig. (2-tailed)	0,00*	
	N	302	302

*p<0.05

According to the results, there was a significant slight relationship between epistemological and foreign language learning beliefs of the students ($r = -0.181$, $p < .005$). That is, the finding revealed that the students' epistemological beliefs slightly affected their language learning beliefs.

4.4. Findings about the Fourth Research Question: Is There Any Significant Difference in Epistemological and Foreign Language Learning Beliefs of University Students in terms of Gender?

In order to reveal the difference between males and females concerning their epistemological and FLL beliefs, independent sample t-test was used. P- Value was considered whether the difference was significant or not.

Table 4.11 Learners' Epistemological Beliefs in terms of Gender (T-Test)

<i>Scale</i>	<i>Dimension</i>	<i>Gender</i>	<i>N</i>	<i>X</i>	<i>Sd</i>	<i>t</i>	<i>P</i>
<i>Epistemological Beliefs</i>	<i>The belief that learning depends on effort</i>	Female	157	36,32	9,40487	1,142	,255
		Male					
	<i>The belief that learning depends on ability</i>	Female	145	37,64	10,63189	2,201	,029*
		Male	157	18,49	5,63143		
	<i>The belief that there is only one truth</i>	Female	145	19,92	5,68390	0,290	,772
		Male	157	28,61	5,46614		
	<i>Total</i>	Female	145	28,80	5,45385	1,891	,600
		Male	157	83,43	13,34612		
		Female	145	86,36	13,58503		
		Male	145	86,36	13,58503		

*p< .05

Table 4.11 reveals that university students' epistemological beliefs do not significantly vary in terms of gender regarding the subcategories that *learning depends on effort* and that *there is only one truth* ($p>.05$). In this regard, it can be stated that both males and females participated in this study had similar epistemological beliefs in terms of the mentioned dimensions of epistemological beliefs scale. However, the p-value for *learning depends on ability* factor was $p<.05$. This finding shows a significant change between males and females. When we look at the mean scores of the males (19, 92) and females (18, 49) of this subcategory, it is seen that females' mean score is smaller a bit. According to the epistemological beliefs questionnaire, smaller mean scores indicate more sophisticated epistemic beliefs. Therefore, we can deduce that the female participants in this study had slightly more sophisticated beliefs in terms of *learning depends on ability* dimension. That is, the females were less inclined to evaluate learning as a matter of ability.

Table 4.12 Learners' Foreign Language Beliefs in terms of Gender (T-Test)

<i>Scale</i>	<i>Dimension</i>	<i>Gender</i>	<i>N</i>	<i>X</i>	<i>Sd</i>	<i>t</i>	<i>P</i>
<i>Foreign language learning beliefs</i>	Difficulty of language learning	Female	157	19,29	2,46895	1,124	,262
		Male	145	18,92	3,30001		
	Foreign language aptitude	Female	157	29,55	4,63321	-1,507	,133
		Male	145	28,70	5,17623		
	The nature of language learning	Female	157	24,05	,35987	-,454	,650
		Male	145	23,83	,31612		
	Learning & communication strategies	Female	157	26,38	4,09555	-,1023	,307
		Male	145	25,85	4,94691		
	Motivations and expectations	Female	157	15,16	2,78928	-1,030	,304
		Male	145	14,82	3,02918		
	<i>Total</i>	Female	157	114,45	12,80044	-1,384	,167
		Male	145	112,13	16,28122		

* $p > .05$

Table 4.12 indicates the findings in relation to the learners' foreign language learning beliefs in terms of gender. The results revealed that the students' language learning beliefs did not differ significantly in terms of gender. In other word, they had similar language beliefs in general and based on the sub-categories ($p > .05$).

4.5. Findings about the Fifth Research Question: Is There Any Significant Difference in Epistemological and Language Learning Beliefs of University Students in terms of Field of Study?

University students' epistemological beliefs and FLL beliefs were investigated in terms of their fields of study, as well. The students' fields of study were classified under two categories, which were social sciences (229 students) and hard sciences (79 students). Independent sample t-test was used to analyse the difference between the fields of study, and p-values were considered whether the difference was significant or not. Table 4.13 shows the findings for the epistemological beliefs of the students, while table 4.14 indicates the findings in terms of the FLL beliefs.

Table 4.13 Learners' Epistemological Beliefs in terms of Field of study (T-Test).

<i>Scale</i>	<i>Dimension</i>	<i>Field of Study</i>	<i>N</i>	<i>X̄</i>	<i>Sd</i>	<i>t</i>	<i>P</i>
<i>Epistemological Beliefs</i>	<i>The belief that learning depends on effort</i>	Social Science	229	36,30	9,94251	-2,011	,045*
		Hard Science	73	39,00	10,04573		
	<i>The belief that learning depends on ability</i>	Social Science	229	18,58	5,39402	-3,286	,001*
		Hard Science	73	21,05	6,21577		
	<i>The belief that there is only one truth</i>	Social Science	229	28,54	5,23851	-,900	,369
		Hard Science	73	29,20	6,08495		
	<i>Total</i>	Social Science	229	83,43	13,10052	-3,258	,001*
		Hard Science	73	89,26	13,94436		

*p< .05

Table 4.13 indicates that the university students' epistemological beliefs significantly differed in terms of the *learning depends on effort* and *learning depends on ability* sub-dimensions with regard to their fields of study, which were categorized under social and hard sciences. In terms of *there is only one truth* dimension, there was not a significant change. Regarding the total result, it is seen that the learners' epistemological beliefs differed significantly. The mean scores of students of social science for each dimension and for the beliefs in total are lower. According to the epistemological beliefs scale, the lower mean scores show more sophisticated epistemological beliefs. In this regard, it can be stated that the students of social science had more developed epistemological beliefs than the students of hard science in terms of their epistemological beliefs in general and the belief that learning depends on effort rather than ability. However, in terms of singularity of truth, they held similar beliefs.

Learners' FLL beliefs were also analysed regarding their fields of study, as well. Table 4.14 shows the findings about the students' FLL beliefs concerning their fields of study under social and hard science categories.

Table 4.14 Learners' Foreign Language Learning Beliefs in terms of Field of Study (T-Test).

<i>Scale</i>	<i>Dimension</i>	<i>Field of Study</i>	<i>N</i>	<i>$\bar{X}$</i>	<i>Sd</i>	<i>t</i>	<i>P</i>
<i>Foreign language learning beliefs</i>	Difficulty of language learning	Social Science	229	19,10	2,79370	-,153	,879
		Hard Science	73	19,16	3,22756		
	Foreign language aptitude	Social Science	229	29,42	4,71376	1,775	,077
		Hard Science	73	28,26	5,42634		
	The nature of language learning	Social Science	229	24,25	4,17139	2,294	,022*
		Hard Science	73	22,98	3,90688		
	Learning & communication strategies	Social Science	229	26,22	4,38480	,613	,540
		Hard Science	73	25,84	4,96564		
	Motivations and expectations	Social Science	229	15,11	2,82924	1,203	,230
		Hard Science	73	14,64	3,13302		
	<i>Total</i>	Social Science	229	114,12	13,84953	1,647	,101
		Hard Science	73	110,90	16,53293		

* $p > .05$

According to the findings presented in table 4.14, the university students' FLL beliefs only varied in terms of *the nature of language learning* factor of the BALLI with regard to their fields of study. For the rest of the factors, they remained similar. When we look at the total mean scores, we find out that the students of social science carried higher total mean regarding the nature of language learning dimension. This shows that the students of social science had higher concern in comparison to the students of hard science about the statements of the nature of language learning dimension of FLL beliefs. In other words, they inclined to believe more that language learning is a matter of learning vocabulary, learning grammar, making translation and that it is necessary to know the foreign culture in language learning.

4.5. Summary

The general results of the EBQ make possible to conclude that the university students had developed epistemological beliefs. In terms of *the Belief that Learning Depends on Effort* and *the Belief that Learning Depends on Ability* dimensions, the learners had sophisticated beliefs, whereas the result for the dimension that *the Belief that There is Only One Truth* they were uncertain. In this sense, they had neither sophisticated nor naïve beliefs. The males and females differed slightly in terms of *the Belief that Learning Depends on Ability*; the female participants had slightly more developed beliefs than those of males. This indicates that the females tended to believe less that learning depends on ability. On the other side, the results at the end of the BALLI implementation revealed that the students had varied foreign language learning beliefs but there were not gender differences in terms of the BALLI dimensions, that is, they had similar FLL beliefs. There was a significant slight relationship between the participants' epistemological and language learning beliefs.

On the other hand, it was also revealed that university students of social science had more sophisticated beliefs regarding learning depends on effort. That is, they believed more compared to the students of hard science that learning is not a matter of ability. The difference between the both groups regarding their FLL beliefs found to be only significant with regard to the nature of language learning dimension of the BALLI in favour of the students of social science.

The students generally viewed learning as a matter of effort rather than ability. For example, they rated that they found it refreshing to think on the issues that experts disagreed, and that one should continue to understand a problem when he/she cannot learn quickly. Another example of this was that the learners regarded learning as a slow process of forming knowledge. They disagreed that some people have inborn ability in learning while others have limited ability. Likewise, they disagreed that working on a problem for a long time is just useful for good learners, or being a good learner is just associated with memorizing facts.

In terms of *the belief that there is only one truth* the students were not certain about most of the items. For instance, about whether truth is tentative and words have one clear meaning, they were not sure. They disagreed a teacher should keep his students from wandering from the right track; however, they seemed to be in favour of lecturers who stick to their plans.

Students also held a range of beliefs about FLL. The participants generally considered English as a language of medium difficulty and thought that up to 5 years is needed to speak fluently. Majority of them believed that some languages are easier than others. Likewise, more than half of them believed that they could ultimately speak English. The learners had no consensus on which skills of English is easier than others.

Regarding the language aptitude, more than half of the students believed in their FLL ability, whereas they were not sure about the idea that some people have a special inborn ability of learning a foreign language and those who already speak a foreign language can easily learn another one. The respondents did not also seem to be certain about the ability of Turkish people in FLL and whether those who can speak multiple languages are very intelligent. They accepted the superiority of children in foreign language learning, but they differed in their opinions about superiority of women. Most of them believed that everyone can learn a foreign language. This finding suggests that they did not view FLL a matter of aptitude. This is also consistent with their epistemological belief as they believed that learning depends on effort. They disagreed that those who are good at Science and Maths are also good at learning languages.

As for the nature of FLL, most of the students thought that the best way of learning a foreign language is being abroad. They also considered learning a foreign language as a matter of learning vocabulary, translation and learning grammar rules. They believed that FLL is different from learning other school subjects. About the necessity of knowing foreign culture in order to speak the language, they were indecisive.

Most of them accepted the necessity of repeating and practising the foreign language, and they seemed willing to practice the language with a native speaker. They believed in the importance of speaking with a perfect accent but they disagreed that one should not speak in the target language until he/she is able to speak correctly. They were not decided about the difficulty of getting rid of mistakes when allowed at the beginning of language learning and about guessing an unknown word in a text. Majority of the students were positive the motivational factors and about possible prospective outcomes of learning English in their lives like finding a good job.

4.6. Analysis of Interviews

The emerged codes related to participants' epistemological and foreign language learning beliefs in the responses to the interviews were categorized and sub-categorized under topics. The number of students mentioning the categories and the percentages were shown in the tables in order to explicitly display participants' opinions on the topics. Respondents' opinions were provided where appropriate. A summary for both epistemological and language learning beliefs of learners obtained from interviews was provided.

4.6.1. Analysis of Interviews about Learners' Epistemological Beliefs

The following sections introduce the analysis of learners' epistemological beliefs obtained from the interview data. The findings are presented in six headings: students' beliefs about the ways to acquire knowledge and learning, features of successful learners, ways for overcoming difficulties of learning, ability in learning, certainty and investigation of knowledge and singularity of truth.

1. Ways to acquire knowledge and learning

Responses to the interview questions revealed the students' ideas about the ways that individuals' learn or acquire knowledge. As shown in table 4.15, they were categorized under three categories: educational, outer, and personal.

Table 4.15 Students' Beliefs about Ways of Acquiring Knowledge

Ways of Acquiring Knowledge	Educational	n*	%
	Studying & school	19	35,2
	Reading	19	35,2
	Repetition	8	14,8
	Resources	6	11,1
	Teachers	6	11,1
	Experiments	5	9,2
	Application	4	7,4
	Libraries	2	3,7
	Science	1	1,8
	Statistical data	1	1,8
	Outer	n*	%
	Others	10	18,5
	Internet	8	14,8
	Experts	8	14,8
	Overhearing	5	9,2
	Environment	3	5,5
	Exchanging knowledge	2	3,7
	Communicating people	1	1,8
	Parents	1	1,8
	Personal	n*	%
	Research	27	50
	Effort	18	33,3
	Criticizing & Questioning	14	25,9
	Curiosity	13	24,1
	Eagerness	8	14,8
	Sightseeing	8	14,8
	Observing	8	14,8
	Intelligence & thinking	5	9,2
	Perception	2	3,7
	Intuition	2	3,7
	Comprehension	2	3,7
	Determination	2	3,7
	Discovery	1	1,8
	Trial and error	1	1,8
	Experience	1	1,8
	Awareness	1	1,8

*n: number of students that mentioned each category at least once

When the sub-categories presented in table 4.15 analysed, it is obviously seen that the interviewees generally put much emphasis on research, effort, studying, reading, curiosity and questioning in order to get knowledge and learn. Likewise,

eagerness, determination, sightseeing, observing, and thinking are other frequently repeated answers that the learners gave. The following extracts illustrate these results:

Knowledge is acquired by research, because nothing is attained without research (S1).

I think knowledge is experience. We acquire this experience after making particular effort or strive (S4).

Some people learn by reading; they get knowledge while some attain knowledge by sightseeing. Doing research is needed in order to acquire knowledge (S19).

I think a student must wonder and question to get knowledge; only that way a student can learn (S27).

A student firstly should be willing and strive since nobody can teach us if we are not eager (S49).

The participants emphasized the role of effort, criticizing, questioning and thinking with regard to learning, as well. Some more extracts from the interviews were presented below showing how the participants referred to these features as being important:

One must make an effort for learning, because if we do not make an effort for learning, we can learn by no means (S5).

Knowledge is truth, which is put forward by research and experiments. Knowledge is attained by research, effort and thinking (S9).

To me, questioning and striving is enough for learning (S40).

A student must study. He must go after it if he wants to learn something, because for getting knowledge one should strive. A student cannot learn without making an effort and studying (S11).

On the other hand, beside personal effort, they emphasized the importance of teachers, experts, the internet and environment to learn. This indicates that students believed that individuals should communicate and advise with other people to get knowledge. The extracts below exemplify this point:

A student, firstly, must know how to attain knowledge in a short way. A student must be a good listener. He/she must ask the right question. He must get information from the experts. Good research from the net and books is required, since only then knowledge could be acquired (S2).

A student learns a great deal of knowledge from instructors and teachers. They can reach to all kind of knowledge from resources and the internet (S13).

A student learns knowledge from instructors, books, the internet, etc. He should endeavour for learning. He may do research. Namely, they can learn from various and all kind of books and resources (S32).

A notable number of students pointed out that curiosity as a factor in order to learn. The extracts, which illustrate the respondents' emphasis on curiosity for learning, were as below:

Knowledge is acquired with the sense of "wondering" (S7).

A student learns by wondering and doing research. I think, initially he should be curious and enthusiastic, and should never give up (S12).

Firstly, he must wonder what that knowledge is. Only then he can learn. Otherwise, he just memorises. Desire is enough for learning (S24).

All these statements show that the students believed in the importance of making an effort for learning and acquiring knowledge. That is, they minded researching, effort, questioning, repetition, reading, studying, eagerness and curiosity to attain knowledge.

2. Features of successful learners

The interviewees were asked about the features of successful students. The responses were sub-categorized under two main categories: Personal characteristics and learning attitudes. Table 4.16 shows these categories.

Table 4.16 Students' Beliefs about Features of Successful Learners

	Personal characteristics		n*	%
Features of Successful Learners	Determined		5	9,2
	Set goals		5	9,2
	Self-confident		4	7,4
	Willing		2	3,7
	Believe in success		2	3,7
	Curious		2	3,7
	Have a sense of responsibility		2	3,7
	Mindful		2	3,7
	Disciplined		1	1,8
	Aim high		1	1,8
	Relax		1	1,8
	Improve themselves		1	1,8
	Overcome problems with ease		1	1,8
	Put forward new ideas		1	1,8
	Learn from their mistakes		1	1,8
	Make use of their observations and experiences		1	1,8
	Can express their feelings both orally and in writing		1	1,8
	Learning attributes		n*	%
	Try to comprehend the subject instead of memorising		19	35,2
	Study hard		6	11,1
	Repeat much		6	11,1
	Study regularly		5	9,2
	Do research		4	7,4
	Learn at school		4	7,4
	Learn from varied resources		4	7,4
	Memorize		4	7,4
	Endeavour		3	5,5
	Read		3	5,5
	Listen carefully		3	5,5
	Comprehend quickly		2	3,7
	Make interpretations		2	3,7
	Put into practice		2	3,7
	Update information and learning		1	1,8
	Have a plan		1	1,8
	Participate in classes regularly		1	1,8
	Go after knowledge		1	1,8
	Create meaningful learning		1	1,8
	Can transfer knowledge		1	1,8

*n: number of students that mentioned each category at least once

As the categories and sub-categories suggest, the respondents stressed comprehension most instead of memorising in acquiring knowledge. The below statements exemplify the opinions of the participants in this regard:

A successful student is that of putting into practice because memorising is not permanent (S2).

The most important characteristic of successful students is being diligent. No, successful learner is not that of memorising things, on the contrary, he is that of comprehending knowledge (S5).

By reading and memorising no one can succeed. The thing memorised today can be forgotten tomorrow. Therefore, we should learn by trying to understand (S6).

To me a successful student is the one who listens to lectures at school; a good participant and interpreter. He can express himself orally or in writing. By memorising one cannot be successful; it needs to be read by comprehension so that the knowledge can become permanent (S17).

The statements of the respondents presented above indicate that the learners minded the importance of comprehension rather trying to memorize the whole subject. In other word, they attached importance to getting the main idea of the subject or knowing the ways to learn.

The respondents also stated that successful students study hard and regularly, repeat much, do research, learn at school and from varied resources, memorise, read, listen carefully, endeavour, put into practice and make interpretations. Examples of these features were introduced below:

A successful learner is the one who repeats subjects, lessons, and does homework; the one refreshing her knowledge and maintaining the knowledge she acquired with a great deal of repetition (S22).

To me, the most important feature of successful students is their studying hard, making use of their experiences and observations (S35).

The one making an effort, striving or wondering... (S37).

Successful learners investigate the knowledge they wonder... (S41).

I think, the most important feature of successful students is that they study regularly and better (S43).

Up to me, successful students understand at school during the lessons (S45).

To me, successful learners are those who create meaningful learning. In brief, they transfer their knowledge and convert it to an opportunity in their lives (S46).

As for personal characteristics, the participants believe that successful students are determined, self-confident, and they set goals. Likewise, willingness, curiosity, belief in success, sense of responsibility and mindfulness were other characteristics that were mentioned. The following statements of the interviewees represent these characteristics:

Being curious, determined and making an effort... (S12).

The most important feature of a successful learner, I think, is a student setting a goal and working in the direction of that goal (S30).

Definitely, they have a target and ideal. Especially, he/she is insistent and has a high level of self-confidence (S31).

Minding... (S33).

Their being self-confident, having a goal, willing, and believing... because to believe is to achieve half the battle (S34)

The one making an effort, striving or wondering... (S37).

They study on time and are planned (S51).

The most significant feature of successful students is their really being willing to learn something (S52).

The overall results presented in this part show that students valued the features such as studying hard and regularly, revision, comprehension, determination, setting goals and doing research as significant features for being a successful learner. In this sense, these findings generally points to the importance of effort when learning. In other words, the students believed that one should try hard in order to get knowledge and learn.

3. Ways for overcoming difficulties of learning

The respondents were also asked about their ways of overcoming difficulties while learning. The analysis of the responses revealed three categories, which are

asking for help, motivational and effort based ways and strategic ways as shown in table 4.17.

Table 4.17 Students' Beliefs about the Ways of Overcoming Difficulties in Learning

Ways for Overcoming Difficulties in Learning	Asking for help	n*	%
	Getting help from someone	13	24,1
	Getting help from instructors	10	18,5
	Getting help from friends	9	16,7
	Getting help from experts	7	12,9
	Asking the instructor to narrate the topic in a different way	1	1,8
	Asking the instructor to focus on it more	1	1,8
	Motivational and effort based ways	n*	%
	Repeatedly reading to understand	8	14,8
	Insisting on learning	6	11,1
	Endeavouring	5	9,2
	Trying to concentrate on the topic	3	5,5
	Studying in a silent place to focus on	2	3,7
	Thinking positively	2	3,7
	Studying the topic again and again	2	3,7
	Trying to listen carefully	1	1,8
	Trying to solve the difficulty	1	1,8
	Trying to motivate herself/himself	1	1,8
	Taking responsibility	1	1,8
	Strategic ways	n*	%
	Applying different methods	8	14,8
	Searching from different resources	7	12,9
	Doing research	5	9,2
	Searching on the internet	3	5,5
	Searching in the library	2	3,7
	Looking for ways to learn the topic in a short way	2	3,7
	Making use of visual aids and videos	2	3,7
	Studying in a plan	2	3,7
	Writing repeatedly	2	3,7
	Starting from the easier, and breaking into pieces	1	1,8
	Using coding technique	1	1,8
	Using social media	1	1,8
	Using computer	1	1,8
	Memorizing	1	1,8
	Narrating himself/herself	1	1,8
	Practicing	1	1,8
	Trying to study the topic in a funny way	1	1,8
	Being a part of the issue that you have difficulty	1	1,8
	Trying to reason the topic	1	1,8
	Trying to get more comprehensive information on the topic	1	1,8
	Stopping for a while then trying again	1	1,8
	Trying to find out the source of difficulty	1	1,8

*n: number of students that mentioned each category at least once

A great deal of the respondents expressed that they ask for help from someone in times of difficulty while learning. Similarly, they mentioned about asking for help from their instructors, friends and experts. The respondents expressed this as in the following statements:

I confer with my friend. If he doesn't have that knowledge, I ask my instructor to help me (S1).

I get help from someone who is knowledgeable about the topic (S3).

I get help from someone who has a grasp of the knowledge. By researching we need to learn. We need to get help (S5).

Developing strategies such as applying different methods, searching from different resources, doing research, searching on the net and in the libraries, looking for shortcuts of learning, writing repeatedly and using coding techniques were some of the ways that the students stated to overcome problems in learning.

When we have difficulties, we should apply different ways and methods. That how we can learn in a short way, we should focus on that or get help from experts (S6).

I try to attain comprehensive information on the topic, and within the framework of this information, I try to solve the problem (S14).

When I face a difficulty, I review the research on the subject; for learning better and permanent learning (S48).

I do research by finding a reliable resource (S52).

... I make use of the net or libraries (S15).

For example, if there is a definition to be memorized, I write it by, firstly, looking at it. Then, I write it repeatedly by looking less. Afterward, I try to say it without looking. Then, I try to write down what I read. Thus, I completely learn that knowledge (S7).

Other than asking for help from others and using some strategies, the respondents also emphasized the importance of motivation and effort in overcoming difficulties while learning. The students mostly insist on learning, read repeatedly, endeavour, try to concentrate and focus on the topic when they come across to a new

challenging topic or task. That means that they strive for overcoming difficulties and acquiring knowledge. Some excerpts are as following:

I study on the subject again and again. I insist on learning... (S2).

I focus on the topic, and I try to reason it... (S9).

I strive for learning; I force myself. After doing these, if I still have difficulty, then, I consult with someone who is knowledgeable in the subject (S11).

I concentrate on more and repeat to understand it over and over again (S13).

I show patience; I do not give up, I endure till I learn. I do my best. Maths was like that for me. I tried to like it because I knew I could not achieve anything without Maths. I studied and showed patience. I even achieved. One does not like something that he has difficulty in but can achieve it anyhow (S43).

These findings also demonstrated that the learners think that one should not give up but insist on and make an effort to learn. Namely, they were aware of effort in acquiring knowledge.

4. Ability in learning

The respondents were asked whether learning is innate or it can be realized with effort. The findings revealed that more than half of the interviewees thought that learning depends on effort. As shown in table 4.18, only four respondents indicated that learning is a matter of ability, however, twenty of them believed in the role of both talent and effort in learning.

Table 4.18 Students' Beliefs about the role of Ability in Learning

The Role of Ability in Learning	Categories	n*	%
	Effort	30	55,5
	Ability	4	7,4
	Both	20	37,0

*n: number of students that mentioned each category at least once

These results are consistent with their opinions presented above of the ways of acquiring knowledge, overcoming difficulties and the features of successful learners. The following statements indicate their opinions on the issue:

No, I do not agree. Knowledge is acquired later on by living. Everything develops over time (S1).

No, learning is not an inborn ability. It is an acquired ability (S2).

Learning ability is not an inborn ability. Human beings must work to achieve it. It must be worked to improve. For instance, nobody can succeed from birth. Without endeavour nothing can be attained (S5).

Learning is not ability from birth. Think of Maths, I completed primary school and then I started high school but I still could not do well in Maths. I told myself that if they could do I could do it, too. Later I began to comprehend Maths by starting to listen to the lectures more carefully and studying regularly. Now, Maths is indispensable for me. I do well in Maths (S7).

Learning cannot be an innate ability. Through the education and hard working the ability is acquired. Everyone has equal innate capacity. Some improve their ability by working hard while some do with less. Therefore, by working the ability is acquired (S35).

As the statements above show, the students believe that learning is realized with effort. However, a small number of the respondents stated that learning depends on ability. The following statements illustrate the opinions of such students:

Everyone is born with a potential. The environment is effective in this development, but it has a certain limit; it cannot be exceeded (S42).

It is a talent from birth like a new-born baby knowing how to breathe and suck (S49).

A notable number of participants expressed that although learning can come from birth, it can be improved by working and effort. By saying this, they mean some people may be extra talented or some abilities can come from birth, however, learning is also improved by effort and working. This can be inferred from the following excerpts:

Learning ability is innate because when one comes into the world, the features of people such as speaking, walking are learned when one is a baby. However, these inborn abilities can be developed (S4).

As thinking ability is only reserved for human beings, everybody is born with a learning ability. It depends on oneself to improve it over time. Some people may have different talents, gifts, geniuses. No success is incidental; there is enormous work and effort behind every success (S6).

It is innate. However, it can be improved. The more someone is eager to learn, the more he does research and learn (S16).

It can be innate but it can be improved later by working, as well, because, provided that one does not have a low intelligence level and the physical conditions are proper, it can be improved (S47).

Learning ability can be from birth, too. However, it is mostly learned afterwards (S50).

5. Students' beliefs about certainty of knowledge and investigation of knowledge

The results showed that most of the respondents believed that knowledge is changeable and knowledge that handed down by experts needs to be investigated. However, a small number thought it is certain, as well. Table 4.19 shows the findings in relation to certainty of knowledge, while table 4.20 shows the outcomes about investigation of knowledge handed down by authority.

Table 4.19 Students' Beliefs on Certainty of Knowledge

	Categories	n*	%
Students' Beliefs about Certainty of Knowledge	Changeable	33	61,1
	Certain	19	35,2
	Partly	1	1,8
	No idea	1	1,8

*n: number of students that mentioned each category at least once

Table 4.20 Students' Beliefs on Investigation of Knowledge

	Categories	n	%
Investigation of Knowledge	Should be investigated	45	83,3
	Should be trusted	3	5,5
	No Idea	6	11,1

*n: number of students that mentioned each category at least once

The outcomes indicate that the learners believe that knowledge is changeable and need to be investigated. That is, they think that knowledge needs further investigation even if it is handed down by authority, and even those who believe

knowledge is certain also think that knowledge should be investigated. The following excerpts demonstrate learners' opinions:

Scientific knowledge is certain since they are objective. They can be provable. We should trust what experts say. If one is specialized at the same field of study, he can question because sometimes some knowledge accepted as exact truths turns to be wrong (S2).

Scientific knowledge is not certain. When we look at back in time, many opinions about the shape of the world were put forward. Knowledge is changeable since the old ideas are refuted by the new ones coming in view over time. We should investigate the accuracy of knowledge because knowledge can change over time (S7).

Scientific knowledge is not certain. ... It is shaped according to the age, time and improving technology. ... We should question the knowledge by experts. ... there may be a fallibility (S15).

Scientific knowledge is certain because their accuracy was confirmed via various tests. In some fields of study ... research should be done (S20).

Scientific knowledge is revealed by research, observation and experiments. ... Therefore, they are objective. However, as a result of improvements in science over time, the previous knowledge may be refuted. Therefore, I am of the opinion that scientific knowledge is not certain. We should investigate, I think, because the experts even disagree with each other. ... Some experts may do more research and may put forward a new knowledge or idea. Therefore, the objectivity of the propounded idea becomes questionable (S30).

6. Singularity of truth

Table 4.21 shows the students' beliefs about the singularity of truth. Similar to the beliefs the participants hold for certainty of the knowledge, it was found out that the respondents also believe that there are multiple truths rather than only one single truth. According to more than half of the participants (51, 8%), there is more than one single truth, while 12 % was of the opinion that the truth may change depending on the topic.

Table 4.21 Students' Beliefs on the Singularity of Truth

Singularity of Truth	Categories	n*	%
	There are multiple truths	28	51,8
	There is only one truth	13	24,1
	Depends on topic or field of study	12	12,2
	No Idea	1	1,8

*n: number of students that mentioned each category at least once

The following expressions demonstrate participants' opinions on this topic:

Since hardly any knowledge is standard and each expert has his/her own distinct theory, a question may have more than one answer (S29).

Truth is changeable and personal. Consequently, it may have more than one answer. I myself may think that questions has one single answer but another one depending on his own perception may think that it has more than one answer (S30).

Those depending on scientific resources, namely, the proved by research has one single answer. However, in some fields of study, like philosophy, it differs according to one's opinion (S25).

On the basis of any topic, in numeric fields, that is, in mathematical subjects, always there is one single answer. Yet in other fields such as in literary, philosophy and sociology, varied and very different responses are received. This depends on individual's point of view (S26).

For example, "2+2=4"; this question has no another correct answer, because we cannot find another correct answer for "2+2=?". Likewise, "Sun rises in the east, set in the west". The result is obvious, certain. There is not any other truth (S34).

There must be one single answer. The reason is, if knowledge associated with the topic is certain, then, the answer must also consist of one single answer. It does not differ from person to person (S51).

4.6.2. Analysis of Interviews about Learners' Language Learning Beliefs

The findings are presented under ten headings in accordance with the interview questions aiming to reveal students' beliefs about their perceived proficiency level, the skill that they are competent at, the skills they consider difficult, the domain they perceived as the most important, aptitude in FLL, their talent in FLL, learning foreign language well in the future, reasons for learning a foreign language, challenges they

face in FLL and their suggestions for success in FLL. The following sections introduce the analysis of learners' FLL beliefs obtained from the interview data.

1. Students' beliefs about their level in English

The emerging data based on the replies to the interview questions displayed the learners' perceptions of their current level of English as shown in table 4.22.

Table 4.22 Students' Beliefs about Their Level in English

Students' Beliefs about Their Level in English	Categories	n*	%
	Average	19	35,2
	Very Poor	8	14,8
	Poor	7	12,9
	Good	7	12,9
	Not good	6	11,1
	Not that good	3	5,5
	Quite good	2	3,7
	None	1	1,8
	Inadequate	1	1,8

*n: number of students that mentioned each category at least once

As shown in table 4.22, the interviewees generally seemed to be unhappy with their English level and view their level in English as *poor*, *very poor*, *not good*, *not that good* and *inadequate*. However, 35, 2 % of the respondents thought that their level was *of medium*. Only seven students expressed that their levels were *good* and two students assessed their level as *quite good*.

2. Students' best developed skill in English

The most developed skill of participants was reading. This was followed by writing, listening and speaking. Below are participants' ideas on this topic:

Table 4.23 Students' Beliefs about Their Best Developed Skill

Students' Best Developed Skill in English	Categories	n*	%
	Reading	20	37,0
	Writing	15	27,7
	Listening	12	22,2
	Speaking	8	14,8
	None of them	2	3,7
	All of them	1	1,8

*n: number of students that mentioned each category at least once

3. Difficulty of skills

According to the participants, listening seemed to be more difficult than other skills. Following listening, speaking and reading respectively were regarded as being difficult than writing. Writing is regarded as the easiest skill.

Table 4.24 Students' Beliefs about Difficulty of Skills

Difficulty of Skill	Categories	n*	%
	Listening	23	42,6
	Speaking	13	24,1
	Reading	12	22,2
	Writing	6	11,1
	All	3	5,5
	No Idea	1	1,8

*n: number of students that mentioned each category at least once

4. Most important domains for Success in FLL

Analysis of the interview data showed that, the respondents emphasized speaking (31, 5%) as the most important domain in learning English as shown in table 4.25.

Table 4.25 Students' Beliefs about the Most Important Domain

The Most Important Domain for Success in FLL	Categories	n*	%
	Speaking	17	31,5
	Vocabulary	13	24,1
	All	12	22,2
	Grammar	10	18,5
	Listening	9	16,7
	Translation	7	12,9
	Reading	6	11,1
	Writing	4	7,4

*n: number of students that mentioned each category at least once

The respondents regarded speaking as the most important domain, because they thought that by speaking they could improve in English better and it was necessary for communicating foreigners. The following abstracts from the interviews illustrate their opinions about the importance of speaking:

Definitely speaking; through it you master that language. It makes easier to understand the culture of that language and your communication with the speakers of that language (S33).

Speaking; if you once speak, you will continue (S25).

In order to learn a language, it should be practised. Namely, speaking; it is more useful for learning a language (S29).

Vocabulary learning (24, 1%) was also expressed by the interviewees to be an important and essential domain in learning the foreign language. The following statements illustrate the participants' beliefs about the importance of vocabulary:

Learning vocabulary is the most important one, because it is basic of a language. You may express yourself with words without making sentences (S15).

I think, it should be started with learning vocabulary as sentences can be formed by learning words (S43).

Interestingly, grammar was also mentioned by 18, 5 % of the participants as an important domain. The following statements demonstrate how learners consider grammar:

One should study grammar in order to learn a language. If you learn grammar, others should be studied for the purpose of reinforcing. In that way learning will be easier (S30).

To me, by learning grammar of English, I can be more successful (S27).

As illustrated below, the student 6 considers grammar important since he believes it is half way of learning English. He also values learning vocabulary as he believes it is necessary for making sentences. Likewise, the student 14 thinks learning can be realized easier via learning vocabulary and grammar.

Learning vocabulary and grammar are the foremost skills. I think, if we learn grammar, we will be half way through it. If we learn a great number of words, we will start to use them in sentences over time (S6).

Learning vocabulary and then focusing on grammar can make learning easier (S14).

The students also stated the significance of listening (16, 7 %) and translation (12, 9). The student 7 believes listening is important as he thinks it provides permanent learning. The extracts below exemplify the learners' opinions on these domains:

To me, listening to a tape recording repetitively; it becomes permanent in time (S38).

If listening and speaking are good, I think, one can succeed but I believe that grammar and translation are also required in order to be successful in learning this language (S32).

One of the students expressed that translation makes possible to understand the logic of the language and learning vocabulary. By saying "logic", most probably she wanted to say translation also provides learning grammar.

I think, translation is important because while translating, you understand the logic of it and improve your vocabulary knowledge (S50).

In fact, it is necessary to report that a significant number of the students (22, 2%) thought that all the domains in language learning are important. The excerpts below indicate their ideas about the significance of the domains:

Studying all of the domains will bring success. Firstly, words are learned. Then grammar is learned. We should translate. We need to write, we need to listen to, but most importantly, while doing this, doing speaking practice, as well (S7).

I think all of them are important. In order to speak a language well, one should be a good listener and should have a good amount of vocabulary (S21).

To me, to completely learn a language... it depends on reading, writing, listening, speaking, vocabulary, grammar and translation. To learn a language best, it is required to do all of these (S22).

5. Foreign language aptitude

The results obviously demonstrate that the participants considered learning a foreign language as a matter of effort rather than aptitude. As table 4.26 shows most of the participants (88, 9 %) believed that learning a foreign language depends on effort.

Table 4.26 Students' Beliefs about Foreign Language Aptitude

	Categories	n*	%
Foreign Language Learning Aptitude	Effort	48	88,9
	Aptitude	1	1,8
	Both	5	9,2

*n: number of students that mentioned each category at least once

Learners believed that everyone can learn a foreign language on the condition that they strive for learning it. In this regard, these findings were parallel to the participants' epistemological beliefs related to learning, that is, they believed that learning depends on effort. In other words, the participants believed that both learning in general and foreign language learning depends on effort. The following statements exemplify participants' opinions about FL aptitude:

No, it is not innate; it is learned by studying. It is not from birth (S17).

Learning a foreign language, in fact, is related to one's really being willing to learn. If there exists much of effort, if it is planned and programmed, it is learned and improved (S31).

In my opinion, it is not from birth; it occurs by studying and willing because when we are born we do not even know our mother tongue, but some may be one step ahead (S38).

I think, it is improved by studying afterwards. Some people are more interested in. Therefore, those who interested are more successful (S45).

Some people are inclined to learn languages, that is, it is innate but some can learn by studying afterwards, as well. Namely, one who desires to learn can learn by studying (S50).

6. Students' beliefs about their talent in FLL

Table 4.27 shows students' opinions about their current talent in learning a foreign language.

Table 4.27 Students' Beliefs about their Talent in FL

	Categories	n*	%
Students' Beliefs of Their Talent in FLL	Talented	33	61,1
	Not talented	11	20,4
	Somewhat talented	10	18,1

*n: number of students that mentioned each category at least once

Most of the interviewees (61, 1 %) thought that they were talented or somewhat talented in learning English. On the other hand, 20, 4 % expressed that they were not talented or somewhat talented (18, 1 %). The following extracts illustrate students' opinions of those who thought they are talented or somewhat talented in FLL:

I believe I am talented in foreign language learning. I think, I can achieve by studying, because I believe that everyone who is willing and determined to study has that talent. I see this in myself as I developed in the courses I attended and according to the results of the exams at the end of those courses (S15).

Definitely yes, because I am aware of my talent (S34)

Somewhat; because I enjoy studying. Thus, it gets easy to grasp what I read (S33).

I think I am, even it is just a bit. The things I read generally stick in my mind (S36).

The following excerpts illustrate the beliefs of those who thought they were not talented in FLL.

No, I am not, because I am forgetful (S47).

Not that much, because I am not interested in foreign language (S21).

I am not that confident in foreign learning. To learn a foreign language one should have self-confidence, and he needs to make an effort (S12).

7. Students' beliefs about learning foreign language well in the future

Table 4.28 shows that whether students believed they could learn English well later on. Majority of the participants (33 students) stated that they believed that they would be able to learn English well someday; however, 18 students indicated that they were not positive.

Table 4.28 Students Beliefs about Learning English Well in the Future

Students' Beliefs about Learning English Well in the Future	Categories	n*	%
	Positive	33	61,1
	Not positive	18	33,3
	Not sure	2	3,7
	No Idea	1	1,8

*n: number of students that mentioned each category at least once

The extracts below indicate the participants' opinions:

Yes, I believe, because I try to be exposed to English. As long as this happens, I improve. I note the unknown vocabulary in the articles that I read or I listen to, and I repeat them. And the number of unknown words in articles I read gradually decreases. This shows the level of my development. By listening, as long as I try to understand the words that I hear, I think, I can take it to a better level (S15).

Honestly, I do not think so. Because we scarcely express ourselves in our own mother tongue; in addition, the conditions are inadequate. In other words, we have no opportunities. If a student could go to another country, there would be all kind of opportunities. Thus, this would lead him to learn the foreign language (S26).

8. Reasons for learning a foreign language

Why students want to learn English is also a sign of their future expectations and the sources of their motivation in learning English. Table 4.29 shows students' opinions about the reasons they learn English.

Table 4.29 Students Beliefs about Reasons for Learning a Foreign Language

Reasons for Learning a Foreign Language	Personal Reasons	n*	%
	Communicating with foreigners and tourists	29	53,7
	Travelling abroad	16	29,6
	Curiosity and interest	7	12,9
	Getting to know foreign cultures	6	11,1
	Having better life conditions	4	7,4
	Self-improvement	3	5,5
	Knowing the meaning of words that we come across	1	1,8
	It is mind developing	1	1,8
	Being able to translate	1	1,8
	Introducing my culture to foreigners	1	1,8
Career related reasons		n*	%
	Finding a (better) job	12	22,2
	Doing business and international trade	9	16,6
	To become an academician	1	1,8
Educational reasons		n*	%
	For educational objectives (doing master etc.)	3	5,5
	Because English is a compulsory course	3	5,5
	Necessary for my department	3	5,5

*n: number of students that mentioned each category at least once

The categories emerged under this topic indicate that the participants' reasons for learning English were personal, career related and educational. The most mentioned reason (53, 7 %) was communicating foreigners and tourists. Travelling abroad (29, 6 %), finding a better job (22, 2 %), doing business and trading internationally (16, 6 %) were other most repeated reasons for learning English. Some students expressed curiosity and interest (12, 9%), getting to know foreign cultures (11, 1 %), better life conditions (7, 4 %) and educational objectives (5, 5%) as their reasons for learning the foreign language.

As stated above, the respondents mostly expressed communicating foreigners and tourists and travelling abroad as reasons they learn English. The following excerpts illustrate these reasons:

There are a lot of benefits of knowing a foreign language. For example, when you go abroad, you can communicate without getting help. Thus, you can help others, as well. The reason that boosts me to learn a foreign language is curiosity (S19).

At least, when we come across to a tourist, we can speak to him or, likewise, when we go abroad... I, for myself, my future want to learn English (S40).

In work life, English is in the foreground. If you speak it, you start one step ahead; you will have precedence. Or assume that you want to go abroad; the foreign language will be a convenience for you (S53).

As I believe I can learn different cultures from different people and my interest in other cultures are among the reasons that boost me to learn the foreign language. And thus, when I go abroad, I will be able to communicate with people easier. This will provide me with travelling freely, comfortably (S15).

Finding a better job and doing business and international trade as career related reasons were frequently mentioned by the respondents. The following statements exemplify these reasons:

The contribution of a foreign language, to me, is its providing more business opportunities, and the reasons that boost me to learn a foreign language are my self-confidence, my teacher and curiosity (S27).

Foreign language will have contributions to our careers. We can be more efficient in work life (S7).

English is an international language; a language of trading. As it is a language that you can express yourself in every country, I regard it as a need. By learning the language, I aim to trade by myself without needing a translator. To make difference, in order to capture the market... (S22).

Some reasons were related to education. The following extract illustrates this:

Primarily, nowadays, foreign language has an important place. For further education and in work life, it is a helpful factor (S34).

9. Challenges taking place in foreign language learning

As shown in table 4.30, the categories about the challenges of language learning were categorized as domain related, learner related, and external challenges.

Table 4.30 Students' Beliefs about Challenges in FLL

Challenges in FLL	Domain related	n*	%
	Listening	11	20,4
	Reading	5	9,2
	Pronunciation	4	7,4
	Speaking	3	5,5
	Grammar	2	3,7
	Translation	2	3,7
	Inadequate vocabulary	2	3,7
	Difficulty in making sentences	1	1,8
	Learner related	n*	%
	Lack of time	2	3,7
	Lack of comprehension	1	1,8
	Motivational problems	1	1,8
	Learning English is tiring	1	1,8
	Not knowing studying methods	1	1,8
	External	n	%
	Lack of practice	6	11,1
	The writing system of English	4	7,4
	Lack of opportunities	4	7,4
	Lack of English private courses and teachers	4	7,4
	Inadequate language teaching	2	3,7
	Lack of exposure to English	2	3,7
	Teacher only speak in English	1	1,8
	Inadequate course hours	1	1,8
	Syllabus problems	1	1,8
	The structure of English	1	1,8

*n: number of students that mentioned each category at least once

In terms of the domains related challenges, students seemed to have problems with listening (20, 4 %), namely, they had problems in understanding the spoken English. The following extracts exemplify students' opinions on this problem:

I do not understand what I listen to (S45).

I do not understand what I read and listen to (S46).

I have problems with understanding and speaking (S11).

Reading (5 students), pronunciation (4 students) and speaking (3 students) problems were also stressed by the respondents. Likewise, grammar, translation and inadequate vocabulary were stated by two students each, as well.

I have difficulty with reading and translating (S51).

I experience problems related to speaking and writing (S47).

I cannot read and translate (S25).

My vocabulary is poor (S31).

Some challenges were categorized as learner related. Two students stated that they did not have enough time for studying. The following excerpt exemplifies this:

We have two hours a week, and we have other courses, as well. So, we cannot allocate time (S16).

As for the external challenges, the respondents complained about lack of practice (11, 1 %), the writing system of English (7, 4 %); lack of opportunities (7, 4 %) and English courses and teachers (7, 4 %). Lack of exposure to English, inadequate language teaching and inadequate course hours were some other factors indicated by learners.

Not having the speaking environment for practising (S33).

I have problems such as not having a good education, lack of opportunities, not being able to spend enough time (S35).

Since no one speaks here, I do not have chance to establish a dialogue (S24).

No speaking practice, difficulties related to the syllabus, lack of English courses (S34).

I can understand what I read and listen to but while writing down I make mistakes (S36).

About learning the foreign language, the words and letters are difficult for me (S12).

10. Learners' suggestions for success in FLL

The analysis of the interview data brought to light some suggestions put forward by the respondents for success in FLL and overcoming the challenges arising during the process of learning a foreign language. Table 4.31 presents the suggestions by the respondents. The suggestions were grouped under two main categories: motivational strategies and strategy based suggestions. Motivational strategies reflect learners' intrinsic ways, which they use to concentrate on their learning process, while strategy based suggestions show their ways of being successful in language learning.

Table 4.31 Students' Suggestions for Success in FLL

	Motivational strategies	n*	%
	Being willing, determined and insistent	9	16,7
	Making effort	6	11,1
	Studying hard	4	7,4
	Believing and trusting himself/herself	3	5,5
	Being curious and inquiry	1	1,8
	Strategy based suggestions	n*	%
	Focusing on learning vocabulary	16	29,6
	Speaking to natives and practice	16	29,6
	Repetition	10	18,5
	Focusing on reading (text, novels)	8	14,8
	Attending private courses	8	14,8
	Going abroad or going to an English speaking country	8	14,8
	Studying regularly	7	12,9
	Getting a tutor	6	11,1
	Focusing on listening	5	9,2
	Studying by writing	5	9,2
	Translating	3	5,5
Learners' Suggestions for success in English	Learning grammar	3	5,5
	Apply different methods	3	5,5
	Listening to English music	3	5,5
	Following English courses at school	3	5,5
	Making sentences and dialogues	2	3,7
	Using mobile phone applications	2	3,7
	Learning pronunciation	1	1,8
	Making it fun	1	1,8
	Watching movies with English subtitles	1	1,8
	Reading loudly	1	1,8
	Learning step by step from the beginning	1	1,8
	Making English friends	1	1,8
	Making it a part of life	1	1,8

*n: number of students that mentioned each category at least once

The first category reflects students' suggestions with regard to motivation. Insistence, determination and willingness (16, 7 %), effort (11, 1 %), studying hard (7, 4 %), self-belief (5, 5 %) and curiosity (3, 7 5) seem to be important features that participants value for a successful FLL experience. These features indicate the importance of effort and determination in FLL. The following statements exemplify these suggestions:

It should be studied with patience (S3).

They should always repeat, should make an effort, never give up, and always strive to speak English (S29).

For success one should be very keen and be insistent at the same time. Otherwise, if they are discouraged, they cannot do it. Therefore, it has got to be a heartfelt desire (S48).

I think they must spend most of their time for this and practise (S50).

Those who have difficulty need to study hard... (S35).

With more effort, one can be more successful (S31).

Firstly, they should be self-confident and determined in this way (S30).

I believe that it can realised by being curious about it and questioning (S27).

On the other hand, they recommend a range of strategies for an effective learning from their point of view. Learning vocabulary (29, 6 %), speaking to natives (29, 6 %) and repetition (18, 5 %) were respectively the most frequently expressed ways suggested by the respondents as illustrated in the following excerpts:

To me, it must be practised much, and they must learn a large number of words (S45).

Those who face difficulty should learn the meaning of the words. They should have a study plan and study regularly every day (S9).

They should spend most of their times with speaking that language and learning vocabulary (S16).

They should study, if they want to learn that language, by always speaking in the foreign language, etc. (S54).

People can learn fast and improve it among those who speak that language (S12).

Repetition is needed without giving up and getting tirelessly (S25).

The most important one is listening to the lessons carefully and repeat the topics; this will bring success (S21).

They should listen to and speak. They should attend courses and create a speaking medium (S33).

Focusing on reading (14, 8 %), attending private courses (14, 8 %), going abroad or an English speaking country (14, 8) were other frequently stated suggestions. Some extracts reflecting these suggestions are presented below:

Novels in the foreign language should be read... (S2).

One should attend language courses, if there exist (S34).

The country we live is an obstacle as there is no a medium to speak. There must be a setting where everyone speaks the language so that I can understand the language by uniting them. In short, one should hang out in a region where that language is spoken (S26).

Studying regularly (12, 9 %), getting a tutor (11, 1), listening (9, 2 %) and studying by writing (9, 2 %) were also stated by the respondents as suggestions. The statements below illustrate these suggestions:

If we study both by writing and listening, the problems will minimize (S49).

Those who have difficulties should take private lessons or try some other ways (S6).

They should especially study regularly, as well (S40).

CHAPTER 5

CONCLUSION AND DISCUSSION

5.0. Introduction

In this study, the relationship between university students' epistemological and language learning beliefs and whether both kinds of beliefs differed in terms of variables of gender and field of study were investigated. The quantitative data collected by means of questionnaires was supported with the qualitative data gathered through interviews. This chapter presents discussion and conclusion of the outcomes of the study and also covers suggestions and recommendations for further studies.

5.1. Conclusion and Discussion

Research Question 1: What are the epistemological beliefs of university students?

The first research question of this study aimed to elicit university students' epistemological beliefs. Students' epistemological beliefs were collected through the EBQ and they were analysed in the SPSS programme. The EBQ consists of three dimensions of epistemic beliefs: the belief that learning depends on effort, the belief that learning depends on ability and the belief that there is only one single truth.

According to the quantitative findings of this study, the university students held sophisticated beliefs in terms of the dimensions that are "learning depends on effort" and "learning depends on ability." Namely, according to the participants of the study, one can learn anything if sufficient amount of effort is shown since learning is not a matter of ability. It also means that they value studying hard, perseverance and insistence in acquiring knowledge. However, the students were uncertain about "there is only one truth" dimension. In other words, they were at a point between sophisticated and naïve epistemic beliefs. That is, although they held the belief that some truths might change, they also believed that there might be absolute truths. According to Schommer (1990, 1995), epistemological beliefs are *more or less independent*, which means that in a person's belief system, not all the epistemological dimensions need to be sophisticated simultaneously; a learner may hold a naïve belief like believing in certainty of

knowledge when he also has a sophisticated belief by thinking that knowledge is complex. In this sense, it is apprehensible that why the participants did not have sophisticated beliefs regarding all the three factors. Some studies put forth similar findings parallel to our study, as well (Eren, 2007; Özdemir, 2013; Kuzu&Erten, 2015). It was common in this studies that the participants had sophisticated epistemic beliefs in terms of the role of effort in learning while their beliefs regarding singularity of truth were less developed.

Holding developed epistemic beliefs is valuable in terms of the belief that learning depends on effort rather than ability for educational objectives, however, the reasons behind the uncertainty of the participants about one single truth dimension needs to be questioned. According to Walker et al., (2009) students' epistemological beliefs may be related to various factors such as previous education, gender, teachers, family, environment and age. Surely, these variables impact personal epistemology. It is possible that the participants' beliefs about single and unchanging truths were affected by their previous education. Their indecision can be attributed to Turkish education system, which used to be more dependent on a teacher-led learning although some attempts have been made in recent years to create more learner-centred and technology-based classrooms. In a student-centred setting, students are allowed to take initiative and put forth their own ideas more; they are encouraged to question changeability of knowledge presented in a text or that of expressed by an instructor, but in a teacher centred classroom, students are less active and they are mostly expected to learn what teachers narrate. Many interviewees mentioned of teachers, instructors and books when they were asked about the ways they acquired knowledge. In this sense, the students probably were more dependent on teachers and course books in acquiring knowledge and regarded them as the sources of getting knowledge; probably they believed the knowledge they attained from books and teachers were unquestionable.

It should be pointed out that some interviewees stressed that changeability of knowledge can be dependent on the subject studied. This finding can also be regarded as an explanation why the students were uncertain about singularity of truth. The participants might have meant positive science when they said the certainty of knowledge depended on the field of study or subject as some respondents mentioned of physical laws and mathematical facts. In other words, they might have been of the opinion that some truths might be accurate, but they also might have believed in tentativeness of knowledge over time as a result of developments in science, as well.

Chan, et al., (2011) state that when the belief in innate ability and fixed knowledge is weaker, learners tend to have better cognitive abilities; they are more open-minded and more tolerant to opposite opinions. In this sense, it is of great importance to enlighten students about epistemological beliefs, especially about changeability of knowledge and existence of multiple truths as this study revealed that university students were confused about multiplicity of truths. The more a learner believes that there can be multiple truths, the more he/she will question, criticize, think creatively in acquiring knowledge and look for alternative ways of learning. Students who think there is one single truth and it is not tentative may spend less effort in setting forth their own opinions in learning and may stick to a certain schedule. Similarly, there may be influences of believing in singularity of knowledge in foreign language learning, as well. Language learners will probably be confused about making the right decisions related to their language learning or deciding on the right strategies in their language learning process, when they believe that there is only one truth and it is not tentative. The uncertainty of the participants of this study about multiplicity of truths may be an indicator of intolerance of ambiguity, which is “defined as the tendency to perceive and interpret information that is marked by vague, fragmented, incomplete, inconsistent, contradictory, or unclear meaning as actual or potential sources of psychological threat” (Mostul, 1977:2). Intolerance of ambiguity is a disadvantage in FLL and may interfere with FLL process. According to the results, the students appreciated instructors who organize their lessons carefully and teach according to their schedule. This finding can also be regarded as a sign of intolerance of ambiguity since it indicates that the learners wanted information to be presented regularly and within a schedule by their instructors. Nevertheless, their being appreciative about such kind of instructors may stem from their social and cultural contexts where people who are meticulous in their work are appreciated, as well. Individuals who are intolerant of ambiguity tended to be stricter and they look for certainty (Kimura, 2016). The students participating in this study probably may have difficulties when they find out that some pieces of the language are complex or not structured the same as their native language since they were not decided about the changeability of knowledge. Oxford (1999) connects anxiety to learners’ tolerance of ambiguity (cited in Hall’s study 2011). Namely, this notion of ambiguity in language learning may cause anxiety, and at a result, may inhibit learning. However, the learners disagreed with the belief that a good teacher sways his students on one truth or opinion. That is, they were open to new thoughts and questioning in learning.

As for the role of effort in acquiring knowledge, learners viewed learning or knowledge acquisition as a matter of effort rather than a talent from birth parallel to Güngör's study (2016). That is, they were of the opinion that if a learner endeavours to learn a subject, he or she will ultimately learn it. The interviewees also valued research, effort, studying hard, searching from varied resources, thinking, reading and determination for learning. Curiosity, questioning and willingness were also mentioned frequently by the learners as requirements for acquiring knowledge. That is, they were of the opinion that learning can be attained through personal demand and endeavour. Epistemological beliefs have a significant role in learning as they may ease learning or hinder it (Schommer&Walker, 1995). In this regard, having sophisticated epistemic beliefs is an important factor in learning as they may affect learners' learning attitudes and strategies. When they regard knowledge as a list including facts, they will choose studying strategies like memorising lists in accordance with their belief (Schommer, 1993). Similarly, students considering learning a matter of ability would probably not spend much time for studying. When students hold more sophisticated beliefs, they perform better in tasks and text comprehension; they get better scores and are more successful regarding academic achievement (Ryan, 1984; Schommer, 1990, 1992; 1993; Schommer et al., 1997; Cano, 2005). In this sense, we can state that the learners in this study, via their sophisticated beliefs, can have better learning outcomes and can be more successful in learning provided that they use their epistemic beliefs more consciously. However, it should also be noted that, as exceptional cases, the learners were undecided whether trying too hard to understand a problem will most probably cause confusion, and whether "average" learners in school will continue to be "average" or not in their lives after school. These were notable outcomes as the results of the EBQ showed that they supported effort in learning rather than ability. Probably, the learners thought of excessive thinking on a problem beyond one's capacity, which may be ineffective and cause failure in learning.

Believing that learning is associated with effort is significant in FLL learning, too. Learners who regard learning as a matter of effort will normally study harder for learning the target language. When we take into consideration that FLL is a long process, students will need to studying hard, insistence and perseverance, which is defined "as the mental capacity to fight for an aim" (Schneider, 2006:213) or "the amount of time the student was willing to spend actively engaged in learning" (Block & Burns, 1976:5), in order to proceed in foreign language learning. Those who are aware

of the importance of effort in learning, can show perseverance better and cope with the difficulties arising during the process of FLL more successfully. When we look at the suggestions of the interviewees for a successful language learning process, we see that they emphasized the necessity of determination, insistence, effort, studying hard and repetition. These outcomes also revealed that the learners were aware of effort, perseverance and determination in FLL. Within this framework, learners taking responsibility in a language learning setting about their learning are expected to be more successful. Therefore, self-determination, which is defined as one's capacity and quality of functioning to select and to use those choices as determinants of his actions without forces and pressures (Deci & Ryan, 1985), can play a critical role in the long language learning process. Being autonomous of his/her learning in a way and making their decisions related to the target language learning can provide learners with self-confidence and, as a result, can bring success.

It should be highlighted that the students were neutral about re-organizing the information in a textbook according to their own personal scheme although they supported the beliefs that a learner should get big ideas from a text rather than details, and that students have control over how much they can get from a text. Namely, by accepting these ideas they meant that they could control their learning and valued their points of views. In this regard, these beliefs contradict the preceding belief. Their being unsure whether to re-organize the information in a textbook according to their personal scheme may mean that they inclined to depend on the knowledge presented in textbooks rather than learning meaningfully by processing the information in accordance with their personal schemes or their ways of learning. This may cause them not to internalize knowledge they try to learn. Regarding their foreign language learning process, this belief may lead to deficiency in effectively putting the knowledge they learn into use or it may result in a learning setting where learners are more dependent on teachers and course books while learning the language.

Research Question 2: What are the university students' foreign language learning beliefs?

University students' foreign language learning beliefs were also investigated in this study. The participants' beliefs were gathered by Horwitz's (1988) BALLI, which consists of five dimensions: the difficulty of language learning, foreign language

aptitude, the nature of language learning, learning and communication strategies and motivations and expectations.

The study demonstrated that university students held numerous beliefs about FLL. This confirms the approval that “learners and teachers bring with them to class a set of beliefs and expectations” (Hall, 2011: 17). Concerning difficulty of language, nearly half of the participants viewed English as a language of medium difficulty and around one-third in total thought it is a difficult or a very difficult language. Regarding the difficulty level of learning English, studies conducted in different contexts also yielded similar results (Bernat & Lloyd, 2007; Başaran, 2010; Geyimci, 2015). For the needed time to speak English fluently, about one-third of the participants in this study reported that one would need 3-5 years, while around one-third thought 1-2 years would be needed. This finding was also consistent with the results of some other studies in literature. For example, Bernat & Loyd (2007) found out that a large proportion of their participants believed 3-5 years would be necessary. More than one-third reported 1-2 years as the needed time for fluency in Naghdipour’s (2014) study. The findings showed that the participants’ perception of difficulty seemed to be consonant with their opinion about the needed time for speaking English fluently. Horwitz (1988) points out that a mismatch between students’ expectations and the realities in FLL may cause disappointment and may end up with negative outcomes. In this regard, 3-5 years for fluency can be considered reasonable; however, 1-2 years and less may possibly result in disappointment when learners do not achieve their objectives properly. The participants thought English is a language of medium difficulty and they demonstrated self-belief and determination to learn it as more than half of the participants were of the opinion that they would finally be able to speak English well parallel to the studies by Al-Zubaidi & Sazalli (2012), Cısdık (2014) and Geyimci (2015). The participants were also asked about the difficulty of the skills in particular. The learners were not sure about easiness of speaking over understanding and whether reading and writing is easier than speaking and understanding. According to the qualitative findings of this present study, listening was the most frequently mentioned skill in terms of difficulty followed by speaking, reading and writing in noteworthy amounts. The students also responded that their best developed skills were respectively reading (20 students), writing (15 students), listening (12 students) and speaking (8 students). As it can be seen, there were not big differences between the findings for each skill although reading and writing

were mentioned more than listening and speaking. It can be concluded that the university students regarded the skills as equally difficult.

The second dimension in the inventory includes statements concerning foreign language aptitude aiming to find out the participants' view about the role of ability in language learning. The findings revealed that the learners agreed with the idea that everyone can learn a foreign language. They thought that learning foreign languages is not associated with innate ability but striving and studying hard. The interviewees also generally stressed that foreign language learning depends on effort by mentioning effort, studying hard, determination and insistence in order to learn a foreign language successfully, as well. The finding approves Horwitz (1988) and Yalçın's (2013) studies. Having a positive concept of language aptitude is surely important; when learners believe that they lack the capacity needed to learn a language, they may do poor in language learning (Horwitz, 1988). Therefore, it is essential to elicit learners' beliefs about aptitude in order to promote self-confidence of those who doubt their talent.

As for the nature of language learning, the participants generally agreed that a foreign language is learned better abroad. This was displayed in several studies, as well (Tercanlioğlu, 2005; Mohebi & Khodadady, 2011; Fujiwara, 2011). The participants usually had no chance for speaking practice since there were not people speaking English around them. The only mediums for being exposed to English and practising speaking were classrooms. Therefore, they might conclude that a foreign language could be learned or improved better in the country where it is spoken. When we take into consideration the qualitative outcomes, we see that many respondents mentioned of going abroad or going to an English speaking country, speaking to natives and practicing in order to be successful in FLL, as well. In spite of this outcome, they were neutral about the necessity of knowing the foreign culture in speaking the language. However, as shown in various other studies (Mohebi & Khodadady, 2011; Fujiwara, 2011; Sadeghi & Abdi, 2015; Yi & Park, 2015), the importance of knowing the culture of the speakers of the target language was well acknowledged by the language learners. In this regard, the participants of this study need to be informed about the importance and benefits of knowing the culture in FLL. Most of the learners were also in favour of translation, learning vocabulary and grammar rules in FLL and the qualitative data supported these results.

In relation to the items concerning learning strategies, the participants overwhelmingly believed in the importance of repetition and practice. Tercanlioğlu

(2005), Altan (2006), Büyükyazı (2010) and Suwanarak (2012) also found similar results. The findings showed that they appreciated rote learning. Their agreement on the importance of practice and repetition is consistent with the results related to the nature of language learning dimension of the BALLI as they supported vocabulary and grammar learning. As for communication strategies, the students generally were willing to practise with people who speak English. Majority of the learners agreed with the importance of speaking perfectly, but they rejected the idea that someone should not say anything until it is expressed correctly. Apparently, they did not let accuracy be an obstacle that prevents them from speaking in the early phase of learning. This is important since having beliefs that emphasize the significance of accuracy may cause anxiety (Horwitz, Horwitz, and Cope 1986; Horwitz, 1988).

The last factor in the inventory is about motivation and expectations about learning English. The results revealed that the learners were quite positive about the outcomes of speaking a foreign language and had high expectations about knowing English as they believed it would provide them with opportunities and help them find a good job. The students participating in Truitt (1995), Rad (2010), Mohebi & Khodadady (2011), Daif-Allah (2012), Suwanarak (2012), Naghdipour (2014) and Yazıcı's (2014) studies also shared the same beliefs. Slightly more than half of the participants in this study agreed that they wanted to learn the language in order to know the speaker of it better. In the interviews as well, the participants highlighted the importance of speaking a foreign language as they believed that it would provide them with communicating foreigners, travelling abroad, finding a good job, doing business and international trade and being familiar with foreign cultures. Being motivated and having positive expectations in the foreign language can facilitate learning.

Research Question 3: Is there a statistically significant relationship between the epistemological and language learning beliefs of university students?

The main concern in this study was to investigate the relationship between university students' epistemological and FLL beliefs. The result showed that there was a negative and slight significant relation ($r = -0,181$, $p < .05$) between epistemological and language learning beliefs of the participants. In other words, as students' epistemological scores decrease, their scores of language learning beliefs increase. This is an expected outcome, as according to the EBQ, low scores show more developed

epistemic beliefs while high scores show less developed beliefs. We can state that as learners' epistemological beliefs about acquiring knowledge become more sophisticated, they become more concerned and positive about their beliefs of FLL.

According to the results of the difficulty of language learning dimension of the BALLI, many participants regarded English as a language of medium difficulty, and they believed that they can learn it well. Considering that the learners believed that learning can be realized with effort, these beliefs seem to be reasonable and it can be stated that they can learn the language provided that they study hard in accordance with their epistemological beliefs.

When we consider the nature of language learning dimension of the BALLI, we see that the students were in favour of generally used methods, which are learning vocabulary, making translation and learning grammar. Namely, contrary to their indecision about singularity of truth, they seemed to be decided on the generally used ways to learn a foreign language. Their seeing language learning as a matter of learning grammar may indicate that they were in favour of sticking to the rules of the language contrary to their uncertainty about only one truth belief.

According to epistemological beliefs results, the students viewed learning as a matter of effort rather than believing that it is an aptitude from birth. Parallel to this finding, students also thought that effort is important in learning a foreign language rather than aptitude according to the results of the language aptitude dimension of FLL beliefs. Namely, the more they believed learning depends on effort, the more they believed that language learning also depends on effort. Majority of the participants (83, 1 %) believed a foreign language can be learned by everyone. On the other hand, although they believed that everyone can learn a foreign language, about innate ability of some people in foreign language learning and intelligence of people speaking more than one language, they were uncertain. Students' uncertainty of these beliefs about FLL contradicts with their results of epistemological beliefs as they believed that learning depends on effort.

Regarding learning and communication strategies of the BALLI, it revealed that most of the learners accepted the importance of practice and repetition (86, 7 %) and they were willing to go to speak to someone speaking the language that they wanted to learn for practising it (70, 2 %). These outcomes were consonant with their epistemological beliefs as they showed students' willingness to strive for learning a

foreign language. Mori (1999) determined that learners' beliefs about fixed ability were related to their attitudes about taking risks when they try to communicate in a foreign language, that is, learners who believed that success is not associated with effort were less eager to communicate. From this point of view, the willingness of the learners in this study for communicating in English can be attributed to their sophisticated epistemic beliefs associated with the belief that learning depends on effort.

With regard to the motivations and expectations dimension of the BALLI, the students had positive beliefs. Their positive beliefs associated with language learning can be linked to their developed epistemic beliefs, as well. Since they related learning to effort, they seemed to be motivated and aware of their strength. Thus, they could realize their future expectations about language learning by studying.

As the overall results suggest, epistemological beliefs are related to foreign language beliefs. Concerning the relationship between epistemological and FLL beliefs, the studies are very infrequent. In one of them, Mori (1999) found that learners' epistemological beliefs had impacts on their beliefs of learning Japanese. Ziegler (2015) also revealed the relations between learners' epistemological beliefs and vocabulary learning. Considering these results together, it is common in them that the relation between these two kinds of beliefs is apparent.

Research Question 4: Is there any significant difference in the epistemological and language learning beliefs of university students in terms of gender?

One of the aims of the study was to explore the effects of gender on epistemological and language learning beliefs of the participants. We found out that although gender is not a variable for language learning beliefs, the epistemological beliefs differ in terms of gender. Tercanlioğlu (2005) and Rad (2010) also found that foreign language learning beliefs did not differ significantly in terms of gender.

The results revealed that the males and females' epistemic beliefs did not differ significantly in terms of “the beliefs that learning depends on effort” and “the belief that there is only one truth” factors of the EBQ. However, with regard to the factor “the belief that learning depends on ability” it was found that females had slightly more developed epistemic beliefs. That is, female students supported the belief that learning is not a matter of ability a little stronger than males, though it was a small difference.

Several studies investigating epistemological beliefs also searched for gender differences. Nayebi & Tahriri (2014) and Kazu & Erten (2015) found no difference between males and females concerning their epistemological beliefs. In terms of learning depends on effort and ability dimensions Deryakulu & Büyüköztürk (2005) and Arslantaş (2015) found that females held more sophisticated beliefs, while for only one truth dimension both males and females were no different. Results in the study by Walker et al., (2009) implied that the female participants had more sophisticated epistemic beliefs regarding all the dimensions. Özdemir (2013) also found that females had more advanced beliefs than males considering their beliefs in effort. However, Er (2013) found males held more developed beliefs associated with their beliefs of effort in learning. Considering the general results of these studies, the findings of this present study are no different. Therefore, it can be concluded that gender is a factor on epistemic beliefs, and female learners seem to have more developed epistemological beliefs than males in terms of the belief that learning depends on effort. Regarding Turkish students, females' having more developed beliefs may be associated with social factors. Traditionally, girls used to be less encouraged to study in comparison to boys, especially in the southeast part of Turkey. Although this situation tends to change in favour of females through various educational campaigns, there can be effects of it yet. Restrictions on girls about their education probably may lead them to struggle for studying, especially for being able to study at a university. Owing to this situation, they possibly developed sophisticated beliefs.

Research Question 5: Is there any significance difference in epistemological and foreign language learning beliefs of university students in terms of field of study?

The students' epistemic and FLL beliefs were also analysed regarding their fields of study. The university students' fields of study were categorized under two domains, which were social science and hard science. In terms of epistemological beliefs, the findings showed that the students of social science held more sophisticated epistemic beliefs than the students of hard science on the basis of learning depends on effort and learning depend on ability sub-dimensions. Regarding the singularity of the truth, both groups in our study had similar beliefs. However, the total results of

epistemological beliefs displayed that the students of social science generally had more developed beliefs compared to the students of hard science.

Throughout their education up to university, students are exposed to varied instructions and they choose their fields of study in accordance with their talents and interests. For sure, they are affected by the education they get according to their fields, as well. In this sense, it was normal that the learners participating in this study held different beliefs consonant with their fields of study. The education that the students of social science receive is more dependent on interpretation, while the students of hard science rely on concrete and certain data more. Jehng et al., (1993) made the distinction between social science and hard science by stating that knowledge provided by social science is loosely defined, do not require a prescribed order and that the problems in social science are not always available; therefore, the students of social science after getting through this uncertainty for years, start to believe that knowledge is uncertain and it takes time to acquire. On the other hand, they state that in hard science knowledge is systematic, problems are well-defined and alternative solutions to these problems are limited. Concerning this issue, research sought to demonstrate whether there is a difference between learners of social science and hard science. King & Kitchener (1994) put forth that in terms of epistemic reasoning, graduate learners of social science had higher level than the students of mathematical science (cited in Hofer study, 2000). Deryakulu & Büyüköztürk (2005) and Tümkaya (2013) determined that the students of social science had more developed epistemic beliefs. In contrast to our finding, Jehng et al., (1993) revealed that students of social science inclined to believe more in changeability of knowledge and they were more reliant on their talent of reasoning than the learners of hard sciences, though both fields did not vary in terms of learning ability from birth. As these studies imply, students of social sciences seem to be more dependent on effort and believe stronger that knowledge can change. Schommer & Walker (1995) state that it is reasonable that belief in certain and unchanging knowledge may be stronger in the field of mathematics in comparison to the field of social science but not in all the knowledge of mathematics. In fact, students may think that there might be absolute facts in some areas although they also believe that knowledge is not certain in general. These explanations so far may present a reason why the students of social science are supposed to have more developed beliefs in terms of the belief that there is only one truth, and in terms of effort and ability dimensions to some extent, as well. However, in this study, it was detected that both groups held

similar beliefs regarding singularity of truth. That is, the students of social science were not different from the students of hard science although the total score for each dimension was in favour of social science domain. It is obvious that students of both domains were confused about only one truth dimension of the EBQ. Our participants' uncertainty about one truth dimension may be attributed to Turkish system of education and social-cultural factors. Teachers used to be at the centre of classrooms in Turkey for years, and students tend to regard them as the main sources of acquiring knowledge although students-centred classrooms have been targeted in recent years. Likewise, textbooks have an important place during learning process. In spite of attempts that have made to create more learner-led and technology-based classrooms in Turkish education system, the students may still be under the influence of the traditional teacher-oriented learning and teaching. As a result, the learners might have not adequately developed beliefs about the certainty of knowledge. On the other hand, the participants belong to a socio-cultural context, in which adults or elderly people are authority figures and their sayings are highly respected and accepted. In such a context, especially young learners make much of their parents and teachers. From this point of view, they likely may not criticize the knowledge handed down by authority adequately and may not display a mature position with regard to changeability of knowledge.

On the other hand, in terms of FLL beliefs of the students, the only change was in their beliefs about the nature of foreign language learning. For the rest of the dimensions, namely the difficulty of language learning, motivations and expectations, learning and communication strategies and the language aptitude they held similar beliefs. Regarding this study, the students of social science seemed to be more concerned with beliefs about the nature of FLL, which includes beliefs about learning vocabulary, making translation, learning grammar, the importance of culture in language learning and learning a foreign language abroad. That is, they believed stronger that language learning is a matter of vocabulary, grammar and translation. They believed more in the importance of knowing the foreign culture and the benefits of learning the language abroad. The possible effects of field of study on language learning beliefs of learners were investigated in other studies, as well. For example, Rad (2010) by dividing university students into teaching students and literature students found different beliefs based on the factors. Bagherzadeh (2012) investigated biology, geography, accounting and science students FLL beliefs found that their beliefs only

differed in terms of the language aptitude. The overall results imply that there may be differences between students from different fields of study regarding their FLL beliefs.

5.2. Implications of the Study

The results revealed that there is a meaningful relationship between learners' epistemological beliefs and their foreign language learning beliefs. Regarding this fact, training learners to promote their epistemological beliefs from the very beginning of their education up to university will help them realize a successful foreign language learning process. In other words, educating students about epistemology by including related courses in curriculum starting from primary school may be of use in favour of students for an effective learning in general and foreign language learning. At university level, related courses should be included in curriculum and training or activities concerning personal epistemology should be held in order to help students to be aware of their epistemological beliefs and their relationship with their FLL beliefs. Thus, university students who hold developed epistemic beliefs may achieve their language learning goals more efficiently.

University students should be encouraged to reflect on their beliefs regarding both epistemological and foreign language beliefs so that they can be aware of their positive and negative beliefs. Thinking on their beliefs may lead them to make their existing knowledge clear, or clarify what they know (Wenden; 1986) and self-regulate their language learning practices in accordance with their own learning methods and approaches. Thus, they can make more proper decisions concerning their FLL process. They should be supported to carry out their own research from varied resources. Students having developed epistemological beliefs will be able to manage their language learning process more successfully and will overcome the difficulties easier.

In this sense, instructors eliciting their learners' epistemological and FLL beliefs, will be able to teach learners more effectively as they will be aware of their learners' ways of acquiring knowledge, the way they approach and learn languages and consequently find out how their attitudes and methods related to learning in general affect the way they learn a foreign language. By providing learners with more learning opportunities concerning and in accordance with their beliefs can make them think more positive about FLL.

The importance of this study arises from its being a rare attempt to reveal the link between university students' epistemological and their FLL beliefs. This attempt is valuable as individuals' personal epistemology is influential on their learning to a great extent. If learners and teachers be aware of the strength of having sophisticated epistemic beliefs, they can create more successful FLL settings. Consequently, it can be stated that enlightened students, instructors and educators about the link between epistemological and foreign language learning beliefs, and about the effects and advantages of being aware of them can create more powerful and efficient foreign language teaching and learning.

5.3. Recommendations for Further Studies

More comprehensive and long-term research can be done with the aim of revealing the effects of language learners' epistemic beliefs on their FLL beliefs and the results of these possible impacts. Likewise, varied kinds of data can be collected and different variables can be examined. "Research on their epistemic beliefs may help researchers and educators describe, explain, and improve English Language Learners' critical thinking as an essential part of their language acquisition and proficiency development" (Ziegler: 2015:4). On the other hand, the link between language learners' academic achievement and their both epistemic and FLL beliefs can be investigated. Through these future studies, a deeper insight into the relationship between learners' epistemological and FLL beliefs can be demonstrated and they can be dealt with more efficiently.

When the literature is reviewed it will be seen that research on the relationship between students' epistemological and FLL beliefs is limited, even non-existence of studies concerning the relationship between epistemological beliefs and English language learning beliefs. Therefore, it is obvious that more studies are needed regarding foreign language learning beliefs and students' personal epistemology. Owing to more studies on this issue, concerning primary, high school and undergraduate students, the connection between learners' personal epistemology and the beliefs they hold about FLL can be displayed comprehensively.

6. REFERENCES

- Agudo, J. D. M. (2014). Analysing Spanish learners' beliefs about EFL learning. *Porta Linguarum*, 22, 285-301.
- Aksan, N. (2006). *Üniversite öğrencilerinin epistemolojik inançları ile problem çözme becerileri arasındaki ilişki*. Yüksek lisans tezi, Çanakkale Onsekiz Mart Üniversitesi, Çanakkale.
- Altan, M. X. (2006). Beliefs about language learning of foreign language-major university students. *Australian Journal of Teacher Education*, 31(2), 5.
- Al-Zubaidi, K. O., & Sazalli, N. A. H. (2012). The language learning beliefs of Arab ESL Students. In *UNNES International Conference on ELTLT (English Language Teaching, Literature, and Translation)* (pp. 32-43).
- Ariogul, S., Unal, D. C., & Onursal, I. (2009). Foreign language learners' beliefs about language learning: A study on Turkish university students. *Procedia-Social and Behavioral Sciences*, 1(1), 1500-1506.
- Armstrong, D. (1973). *Belief, Truth and Knowledge*. Cambridge, MA: Cambridge University Press.
- Arslantaş, H. A. (2016). Epistemological beliefs and academic achievement. *Journal of Education and Training Studies*, 4(1), 215-220.
- Audi, R. (2010). *Epistemology: A contemporary introduction to the theory of knowledge*. Routledge.
- Ayaz, F. (2009). *Fen bilgisi öğretmen adaylarının epistemolojik inançlarının yordanması*. Yüksek Lisans tezi, Ege Üniversitesi, İzmir.
- Bagherzadeh, H. (2012). Language learning beliefs of non-English majors: Examining the role of English language proficiency. *Journal of Language Teaching & Research*, 3(4), 784-792.
- Bahadır, P. (2011). *The relationship between EFL learners' beliefs and EFL teachers' beliefs on language learning and the effect of learners' beliefs on learner performance: metacognitive awareness*. Master thesis, Çanakkale Onsekiz Mart University, Çanakkale.
- Barcelos, A. M. F. (2000). *Understanding teachers' and students' language learning beliefs in experience: A Deweyan approach*. Doctoral Dissertation, University of Alabama, Tuscaloosa.

- Başaran, S. (2010). *Effects of podcasts on language learning beliefs and self-efficacy perceptions of first-year Turkish university students*. Doctoral dissertation. Çukurova University, Adana.
- Bassano, S. (1986). Helping learners adapt to unfamiliar methods. *ELT journal*, 40(1), 13-19.
- Baxter Magolda, M. B. (1992). *Knowing and reasoning in college: Gender-related patterns in students' intellectual development*. San Francisco: Jossey Bass.
- Belenky, M. F., Clinchy, B. M., Goldberger, N. R., & Tarule, J. M. (1986). *Women's ways of knowing*. New York, NY: Basic Books.
- Bendixen, L. D., & Feucht, F. C. (2010). *Personal epistemology in the classroom: Theory, research, and implications for practice*. Cambridge University Press.
- Bernat, E., & Gvozdenko, I. (2005). Beliefs about language learning: Current knowledge, pedagogical implications, and new research directions. *TESL-EJ*, 9(1), 1-21.
- Bernat, E., & Lloyd, R. (2007). Exploring the gender effect on EFL learners' beliefs about language learning. *Australian Journal of Educational & Developmental Psychology*, 7(1), 79-91.
- Block, J. H., & Burns, R. B. (1977). Mastery learning. In L. S. Shulman (Ed.), *Review of research in education* (Vol. 4, pp. 3-49). Itasca, IL: Peacock.
- Borg, M. (2001a). Key concepts in ELT: Teachers' beliefs. *ELT Journal*, 55(2), 186-188. doi.org/10.1093/elt/55.2.186
- Brookes, A. (1988). [Review of the *Book Women's Ways of Knowing*]. *Curriculum Inquiry*, 18(1), 113-121.
- Brownlee, J., Schraw, G., & D. Berthelsen, D. (Eds.). (2012). *Personal epistemology and teacher education*. New York, NY: Routledge.
- Cano, F. (2005). Epistemological beliefs and approaches to learning: Their change through secondary school and their influence on academic performance. *British Journal of Educational Psychology*, 75(2), 203-221.
- Cephe, P. T., & Yalcin, C. G. (2015). Beliefs about foreign language learning: The effects of teacher beliefs on learner beliefs. *Anthropologist*, 19(1), 167-173.
- Chan, K. W., & Elliott, R. G. (2004). Epistemological beliefs across cultures: Critique and analysis of beliefs structure studies. *Educational Psychology*, 24(2), 123-142.

- Chan, N. M., Ho, I. T., & Ku, K. Y. (2011). Epistemic beliefs and critical thinking of Chinese students. *Learning and Individual Differences*, 21(1), 67-77.
- Cısdık, Z.K. (2014). Exploring the changes in Turkish university students' language learning beliefs as a result of 'Erasmus student mobility for studies programme'. *MA thesis, Çukurova University, Adana*.
- Cotterall, S. (1995). Readiness for autonomy: Investigating learner beliefs. *System*, 23(2), 195- 205.
- Crumley, J. S. (2009). *An introduction to epistemology*. (2nd Ed.). Ontario, Canada: Broadview Press.
- Daif-Allah, A.S. (2012). Beliefs about foreign language learning and their relationship to gender. *English Language Teaching*, 5(10), 20-33.
- Deci, E. L., & Ryan, R. M. (1985a). *Intrinsic motivation and self-determination in human behaviour*. New York: Plenum.
- Deryakulu, D., & Büyüköztürk, Ş. (2002). Epistemolojik inanç ölçeğinin geçerlik ve güvenirlik çalışması. *Eğitim Araştırmaları*, 8, 111-125.
- Deryakulu, D., & Büyüköztürk, Ş. (2005). Epistemolojik inanç ölçeğinin faktör yapısının yeniden incelenmesi: Cinsiyet ve öğrenim görülen program türüne göre epistemolojik inançların karşılaştırılması. *Eğitim Araştırmaları*, 18, 57-70.
- Diñçer, A. (2017). EFL learners' beliefs about speaking English and being a good speaker: A metaphor analysis. *Universal Journal of Educational Research*. 5 (1), 104-112.
- Er, K. O. (2013). A study of the epistemological beliefs of teacher candidates in terms of various variables. *Eurasian Journal of Educational Research*, 50, 207-226.
- Eren, A. (2007). Examining the differences among undergraduate students' epistemological beliefs. *Eğitim ve Bilim-Education and Science*, 32(145), 71-85.
- Fenstermacher, G. D. (1994). The knower and the known: The nature of knowledge in research on teaching. *Review of Research in Education*, 20, 3-56.
- Fujiwara, T. (2011). Language learning beliefs of Thai EFL university students: Dimensional structure and cultural variations. *Electronic Journal of Foreign Language Teaching*, 8(1), 87-107.
- Geyimci, G. (2015). *Beliefs about language learning and language learning strategy use in an EFL context*. Master thesis, Çağ University, Mersin.

- Güngör, N.B.. (2016). *Beden eğitimi öğretmen adaylarının epistemolojik inançları ile liderlik özellikleri arasındaki ilişkinin incelenmesi*. Yüksek lisans tezi, Gazi Üniversitesi, Ankara.
- Hall, G. (2011). *Exploring English language teaching: Language in action*. Roudledge.
- Hennink, M., Hutter, I., & Bailey, A. (2010). *Qualitative research methods*. Sage.
- Hofer, B. K. (2000). Dimensionality and disciplinary differences in personal epistemology. *Contemporary Educational Psychology*, 25, 378-405.
- Hofer, B. K., & Bendixen, L. D. (2012). Personal epistemology: Theory, research, and future directions. *APA educational psychology handbook*, 1, 227-256.
- Hofer, B. K., & Pintrich, P. (2002). *Personal epistemology: The psychology of beliefs about knowledge and knowing*. Mahwah, NJ: Lawrence Erlbaum.
- Hofer, B. K., & Pintrich, P. R. (1997). The development of epistemological theories: Beliefs about knowledge and knowing and their relation to learning. *Review of educational research*, 67(1), 88-140.
- Horwitz, E. K. (1985). Using student beliefs about language learning and teaching in the foreign language methods course. *Foreign Language Annals*, 18(4), 333-340.
- Horwitz, E. K. (1988). The beliefs about language learning of beginning university foreign language students. *The Modern Language Journal*, 72, 283-294.
- Horwitz, E. K. (1999). Cultural and situational influences on foreign language learners' beliefs about language learning: A review of BALLI studies. *System*, 27(4), 557-576.
- Horwitz, E.K. (1987). Surveying student beliefs about language learning. In A. Wenden & J. Rubin (Eds.), *Learner strategies in language learning* (pp. 119- 129). London, UK: Prentice-Hall International.
- Horwitz, E. K., Horwitz, M. B., & Cope, J. (1986). Foreign-Language Classroom Anxiety. *Modern Language Journal*, 70(2), 125-132.
- Inceçay, V., & Dollar, Y. K. (2011). Foreign language learners' beliefs about grammar instruction and error correction. *Procedia-Social and Behavioral Sciences*, 15, 3394-3398.
- İnözü, J. (2017). Drawings are talking: Exploring language learners' beliefs through visual narratives . *Applied Linguistics Review*, 0(0), pp. -. Retrieved 23 Oct. 2017, from doi:10.1515/applirev-2016-1062

- Javadi, J., Jahandar, S., & Khodabandehlou, M. (2012). A study on the relationship between Iranian EFL learners' beliefs and their writing ability. *International Journal of Applied Linguistics and English Literature*, 1(4), 161-172.
- Jehng, J. C. J., Johnson, S. D., & Anderson, R. C. (1993). Schooling and students' epistemological beliefs about learning. *Contemporary Educational Psychology*, 18, 23-35.
- Jennifer, M. Y., & Park, Y. (2015). Investigating middle school students' beliefs about English Language Learning in the Korean EFL context. *International Journal of Teaching, Education and Language Learning*, 2 (4), 88-121.
- Johnson, K. E. (1992). The relationship between teachers' beliefs and practices during literacy instruction for non-native speakers of English. *Journal of Literacy Research*, 24(1), 83-108.
- Kalaja, P. (1995). Student beliefs (or metacognitive knowledge) about SLA reconsidered. *International Journal of Applied Linguistics*, 5(2), 191-204.
- Karataş, H. (2011). *Üniversite öğrencilerinin epistemolojik inançları, öğrenme yaklaşımları ve problem çözme becerilerinin akademik motivasyonu yordama gücü*. Doktora tezi, YTÜ, İstanbul.
- Kardash, C. A. M., & Scholes, R. J. (1996). Effects of pre-existing beliefs, epistemological beliefs, and need for cognition on interpretation of controversial issues. *Journal of Educational Psychology*, 88, 260-271.
- Kayaoğlu, M. N. (2013). Poor and good learners' language beliefs and their influence on their language learning strategy use. *Novitas-ROYAL (Research on Youth and Language)*, 7(1), 36-54.
- Kern, R. G. (1995). Students' and teachers' beliefs about language learning. *Foreign Language Annals*, 28(1), 71-92.
- Kimura, H. (2016). L2 Intolerance of ambiguity revisited: Toward a comprehensive understanding. *Konin Language Studies*, 4 (2), 197-216.
- King, P. M., & Kitchener, K. S. (1994). *Developing reflective judgment: Understanding and promoting intellectual growth and critical thinking in adolescents and adults*. San Francisco: Jossey-Bass.
- King, P. M., & Kitchener, K. S. (2004). Reflective judgment: Theory and research on the development of epistemic assumptions through adulthood. *Educational Psychologist*, 39(1), 5-18.

- Kitchener, K. S., & King, P. M. (1981). Reflective judgment: Concepts of justification and their relationship to age and education. *Journal of Applied Developmental Psychology*, 2(2), 89-116.)
- Kızılgüneş, B., Tekkaya, C., & Sungur, S. (2009). Modeling the relations among students' epistemological beliefs, motivation, learning approach, and achievement. *The Journal of Educational Research*, 102(4), 243-255.
- Kuhn, D. (1991). *The skills of argument*. Cambridge, England: Cambridge University Press.
- Kuhn, D., Cheney, R., & Weinstock, M. (2000). The development of epistemological understanding. *Cognitive development*, 15(3), 309-328.
- Lehrer, K. (1990). *Theory of knowledge*. London: Routledge.
- Lightbown, P. M., & Spada, N. (2013). *How languages are learned* (4th ed.). Oxford: Oxford University Press.
- Matsuura, H., Chiba, R., & Hilderbrandt, P. (2001). Beliefs about learning and teaching communicative English in Japan. *JALT Journal*, 23(1), 67-82.
- Moeller, A.K., & Catalano, T. (2015). *Foreign Language Teaching and Learning*. Lincoln : University of Nebraska.
- Mostul, B. (1977). Measurement of ambiguity tolerance (MAT-50): Further Construct Validation. *Dissertations and Theses*. Paper 2514. Portland State University, Portland.
- Muis, K. R., & Franco, G. M. (2009). Epistemic beliefs: Setting the standards for self-regulated learning. *Contemporary Educational Psychology*, 34(4), 306-318.
- Naghdipour, B. (2014). Language Learner Beliefs in An English As A Lingua Franca (ELF) Context. *Advances in Language and Literary Studies*, 5(1), 22-30.
- Nayebi, R., & Tahriri, A. (2014). A study of epistemological beliefs of EFL learners across gender and educational level. *International Journal of Research Studies in Psychology*, 3(3), 17-28.
- O'Brien, D. (2006). *An introduction to the theory of knowledge*. Cambridge, UK: Polity Press.
- Otting, H., Zwaal, W., Tempelaar, D., & Gijssels, W. (2010). The structural relationship between students' epistemological beliefs and conceptions of teaching and learning. *Studies in Higher Education*, 35(7), 741-760.
- Oxford, R. (1999) 'Anxiety and the Language Learner: New Insights', in J. Arnold (ed.) *Affect in Language Learning*. Cambridge: CUP, 58-67.

- Özdemir, İ. (2013). *İlköğretim ikinci kademe öğretmenlerinin epistemolojik inançları ile yapılandırmacı yaklaşıma yönelik tutumları arasındaki ilişki*. Doctoral dissertation, Pamukkale Üniversitesi, Denizli.
- Özşaker, M., Canpolat, A. M., & Yıldız, L. (2011). Beden eğitimi öğretmen adaylarının epistemolojik inançları ve benlik saygıları arasındaki ilişki. *Beden Eğitimi ve Spor Bilimleri Dergisi*, 5 (2), 155-164.
- Pan, L., & Block, D. (2011). English as a “global language” in China: An investigation into learners’ and teachers’ language beliefs. *System*, 39(3), 391-402.
- Peacock, M. (1999). Beliefs about language learning and their relationship to proficiency. *International Journal of Applied Linguistics*, 9(2), 247-265.
- Perry, W. G., Jr. (1968). *Patterns of development in thought and values of students in a liberal arts college: A validation of a scheme*.
- Perry, W.G. 1970. *Forms of intellectual and ethical development in the college years: A scheme*. New York: Holt, Rinehart & Winston.
- Piquemal, N., & Renaud, R. (2006). University students' beliefs and attitudes regarding foreign language learning in France. *TESL Canada Journal*, 24(1), 113-133.
- Rad, N. (2010). Evaluation of English Students’ Beliefs about Learning English as Foreign Language: A Case of Kerman Azad University. In *ICT for Language Learning Conference Proceedings, 2010*.
- Rakıcıoğlu, A. (2005). *The relationship between epistemological beliefs and teacher efficacy beliefs of English language teaching trainees*. MA Thesis, Abant İzzet Baysal University, Bolu.
- Rescher, N. (2003). *Epistemology: An introduction to the theory of knowledge*. Albany: State University of New York Press.
- Richards, J. C. & Lockhart, C. (1994). *Reflective Teaching in Second Language Classrooms*. New York: Cambridge University Press.
- Richardson, V. (1996). The role of attitudes and beliefs in learning to teach. In J. Sikula (Ed.), *Handbook of Research on Teacher Education* (2nd ed., pp.102-119). New York: Macmillan.
- Ryan, M. P. (1984a). Conceptions of prose coherence: Individual differences in epistemological standards. *Journal of Educational Psychology*, 76(6), 1226-1238.
- Schneider, A. J.(2006). Cultural Nuances: Doping, Cycling and the Tour de France. *Sport in Society*, 9(2), 212– 26.

- Schommer, M. (1990). Effects of beliefs about the nature of knowledge on comprehension. *Journal of Educational Psychology*, 82, 498–504.
- Schommer, M. (1993). Epistemological development and academic performance among secondary students. *Journal of Educational Psychology*, 85, 406-411.
- Schommer, M., & Walker, K. (1995). Are epistemological beliefs similar across domains? *Journal of Educational Psychology*, 87, 424-432.
- Schommer, M., Calvert, Ch., Gariglietti, G., y Bajaj, A. (1997). The development of epistemological beliefs among secondary students: A longitudinal study. *Journal of Educational Psychology*, 89(1), 37-40.
- Schommer, M., Crouse, A., & Rhodes, N. (1992). Epistemological beliefs and mathematical text comprehension: Believing it is simple does not make it so. *Journal of educational psychology*, 84(4), 435.
- Schommer-Aikins, M. (2004). Explaining the epistemological belief system: Introducing the embedded systemic model and coordinated research approach. *Educational psychologist*, 39(1), 19-29.
- Schwitzgebel, Eric, "Belief", *The Stanford Encyclopedia of Philosophy* (Summer 2015 Edition), Edward N. Zalta (ed.), URL <<https://plato.stanford.edu/archives/sum2015/entries/belief>>.
- Suwanarak, K. (2012). English language learning beliefs, learning strategies and achievement of Masters students in Thailand. *TESOL in Context*, S3, 1-15.
- Tanaka, K. (1999). The development of an instrument to investigate learners' beliefs about language learning. In *Unpublished seminar paper, Department of Applied Language Studies and Linguistics, University of Auckland*.
- Tanaka, K., & Ellis, R. (2003). Study abroad, language proficiency, and learner beliefs about language learning. *JALT journal*, 25(1), 63-85.
- Topçu, M. S. (2011). Turkish elementary student teachers' epistemological beliefs and moral reasoning. *European Journal of Teacher Education*, 34(1), 99-125.
- Truitt, S. N. (1995). *Anxiety and beliefs about language learning: A study of Korean university students learning English*. Unpublished doctoral dissertation, University of Texas, Austin.
- Tudor, I. (1992). Learner-centredness in language teaching: finding the right balance. *System*, 20(1), 31-44.

- Tümkiye, S. (2012). The Investigation of the epistemological beliefs of university Students according to gender, grade, fields of study, academic success and their learning styles. *Educational Sciences: Theory and Practice*, 12(1), 88-95.
- Walker, S., Brownlee, J., Lennox, S., Exley, B., Howells, K., & Cocker, F. (2009). Understanding first year university students: Personal epistemology and learning. *Teaching Education*, 20(3), 243-256.
- Wampler, W. N. (2013). *The relationship between students' problem solving frames and epistemological beliefs*. Doctoral dissertation, Purdue University.
- Wenden, A. (1986). Helping language learners think about learning. *ELT journal*, 40(1), 3-12.
- Y. Mori (1999). Epistemological beliefs and language learning beliefs: what do language learners believe about their learning? *Language Learning*, 49, 3, 377–415.
- Yalçın, G.Ç. (2013). *Exploring preparatory school EFL learners' and teachers' beliefs about language learning*. Master Thesis, Gazi University, Ankara.
- Yang, N. D. (1999). The relationship between EFL learners' beliefs and learning strategy use. *System*, 27(4), 515-535.
- Yazıcı, İ. Ç. (2014). Beliefs about language learning: Gender related or not? *Çukurova University Journal of Institute of Social Science*, 23(1), 229-238.
- Zagzebski, L. (2008). *On epistemology*. Belmont CA: Wadsworth, Broadview Press.
- Zhao, K., & Zheng, Y. (2014). Chinese business English students' epistemological beliefs, self-regulated strategies, and collaboration in project-based learning. *Asia-Pacific Education Researcher*, 23(2), 273-286.
- Ziegler, N. E. (2015). *English Language Learners' Epistemic Beliefs about Vocabulary Knowledge*. Doctoral dissertation, University of Toledo.

7. APPENDICES

7.1. Appendix 1: Epistemolojik İnançlar Anketi

ÜNİVERSİTE ÖĞRENCİLERİNİN EPİSTEMOLOJİK İLİŞKİN İNANÇLARININ DEĞERLENDİRİLMESİ ANKETİ		
Değerli öğrenciler, Bu çalışmanın amacı, siz üniversite öğrencilerinin epistemolojik inançlarını ortaya koymaktır. Aşağıdaki ifadeler için kesin doğru veya yanlış cevap yoktur. Sizin için en uygun seçeneği işaretleyiniz. Ankette bulunan maddelere vereceğiniz cevaplar tarafımızca saklı tutulacak ve tamamen bilimsel amaçlı olarak kullanılacaktır. Bu anket iki bölümden oluşmaktadır. Birinci bölüm kişisel bilgilerin elde edilmesine yönelik; ikinci ise bölüm epistemolojik inançlarınızı belirlemeye yönelik maddelerden oluşmaktadır. Anket sonuçlarının sağlıklı olabilmesi için maddelere ilişkin görüşlerinizi samimi ve doğru olarak işaretlemeniz gerekmektedir. Lütfen anketlerin üzerine isim belirtmeyiniz. İlgi ve yardımlarınız için şimdiden teşekkür ederiz. M. Emin Munis Çağ Üniversitesi		
BİRİNCİ BÖLÜM (KİŞİSEL BİLGİLER)		
Cinsiyet	Bayan ()	Erkek ()
Yaşınız		
Eğitim seviyeniz	Ön lisans ()	Lisans ()
Eğitim gördüğünüz programın adı		
Sınıfınız		
İKİNCİ BÖLÜM (EPİSTEMOLOJİK İNANÇLAR ANKETİ)		
Bu bölümde dil öğrenmeye ilişkin inançlarınızı öğrenmek amacıyla çeşitli maddeler verilmiştir. Lütfen her bir maddeye ilişkin yanıtınızı; 1-Kesinlikle Katılmıyorum, 2-Katılmıyorum, 3-Fikrim Yok, 4-Katılıyorum, 5-Kesinlikle Katılıyorum, seçeneklerinden birine (X) işareti koyarak cevaplandırınız.		

M.NO	MADDELER	Kesinlikle Katılmıyorum	Katılmıyorum	Fikrim Yok	Katılıyorum	Kesinlikle Katılıyorum
		1	2	3	4	5
1.	Okullarda öğrencilerin ders çalışma becerilerini geliştirmeye yönelik ayrı bir ders verilmesi yararlı olabilir.					
2.	Çoğu zaman öğretmenlerimin gerçekte ne kadar bilgili olduklarını merak ederim.					
3.	En başarılı insanlar, kendi öğrenme yeteneklerini nasıl geliştirebileceklerini keşfetmiş insanlardır.					
4.	Bana göre ders çalışmak, ders kitabındaki ayrıntıları değil ana düşünceleri öğrenmek demektir.					
5.	Bilimsel çalışmaların en önemli kısmı özgün (orijinal) düşünmedir.					
6.	Ders kitabındaki bir bölümü ikinci kez okuduğumda, ilk okuyuşumda öğrenmediğim birçok şeyi öğrenirim.					
7.	Bir ders kitabından ne kadar çok şey öğrenebilecekleri öğrencilerin kendi elindedir.					
8.	Otoritelerin görüş birliği içinde olmadıkları konular üzerinde düşünmek bence zihni çalıştırıcı bir etkinliktir.					
9.	Herkes, nasıl öğreneceğini öğrenmeye gereksinim duyar.					
10.	Akıllı olmak, soruların yanıtlarını bilmek değil, yanıtları nasıl bulabileceğini bilmektir.					
11.	Eğer biri bir şeyi kısa sürede anlayamıyorsa, anlamak için çaba sarf etmeyi sürdürmelidir.					
12.	Öğrenciler, bir ders kitabındaki bilgilerin doğru olup olmadığını araştırmalıdır.					
13.	Uzmanların önerilerini bile çoğu zaman sorgulamak gerekir.					

14.	Çevredeki dikkat dağıtıcı şeyleri ortadan kaldırır ve gerçekten üzerinde yoğunlaşırsam zor kavramları anlayabilirim.					
15.	Bir ders kitabını anlamanın gerçekte en iyi yolu, içindeki bilgileri kendinize göre yeniden düzenlemektir.					
16.	Öğrenme, bilginin zihinde yavaş yavaş birikmesiyle gerçekleşir.					
17.	Bugün doğru olan, yarın yanlış olabilir					
18.	İyi bir öğrenci olmak, genellikle bilgileri ezberlemeyi gerektirir.					
19.	Öğretmenlerin anlattıklarını bazen anlamasanız bile, onları doğru olarak kabul etmek zorundasınızdır.					
20.	Bazıları iyi öğrenci olarak doğar ve başarılı olur, diğerleri yaşam boyu sınırlı bir yetenekle kalır.					
21.	Gerçekten zeki olan öğrencilerin okulda başarılı olmak için çok çalışmalarına gerek yoktur.					
22.	Zor bir problem üzerinde uzun zaman harcayarak çok çalışmak, ancak zeki öğrencilere bir yarar sağlar.					
23.	Biri zor bir problemi anlamak için çok fazla çaba harcarsa, büyük olasılıkla sonuçta kafası karışır.					
24.	Okulda orta düzeyde başarılı olan öğrenciler, okul sonrası yaşamlarında da orta düzeyde başarılı olurlar.					
25.	Ders kitabındaki yeni bilgileri, daha önce öğrenmiş olduklarımla bütünleştirmeyi denediğimde kafam karışır.					
26.	İyi bir öğretmenin görevi, farklı düşüncelere sahip öğrencileri “tek bir doğru düşünceye” sevk etmektir.					
27.	Bilim insanları yeterince çaba harcarsalarsa, hemen her konuda gerçeği (doğruyu) bulabilirler.					
28.	Çoğu sözcüğün açık (anlaşılır) tek bir anlamı vardır.					

29.	Doğru (gerçek) değişmezdir.					
30.	Yaşamda ne zaman zor bir sorunla karşılaşsam anneme ve babama danışırım.					
31.	Bitiminde belirli bir sonuca ulaşmayan sinema filmlerinden hoşlanmam.					
32.	Açık-seçik ve kesin bir yanıtının bulunma olasılığı olmayan problemler üzerinde çalışmak zaman kaybıdır.					
33.	Dersini titizlikle planlayan ve bu planına bağlı kalan hocaları takdir ederim.					
34.	Fen bilgisi derslerinin en iyi tarafı, çoğu problemin tek bir doğru yanıtının olmasıdır.					

7.2. Appendix 2: Yabancı Dil Öğrenimi Yargıları Anketi (BALLI)

ÜNİVERSİTE ÖĞRENCİLERİNİN YABANCI DİL ÖĞRENİMİNE İLİŞKİN İNANÇLARININ DEĞERLENDİRİLMESİ ANKETİ

Değerli öğrenciler,

Bu çalışmanın amacı, siz üniversite öğrencilerinin yabancı dil öğrenimine ilişkin inançlarını ortaya koymaktır. Aşağıdaki ifadeler için kesin doğru veya yanlış cevap yoktur. Sizin için en uygun seçeneği işaretleyiniz. Ankette bulunan maddelere vereceğiniz cevaplar tarafımızca saklı tutulacak ve tamamen bilimsel amaçlı olarak kullanılacaktır.

Bu anket iki bölümden oluşmaktadır. Birinci bölüm kişisel bilgilerin elde edilmesi ile ilgili bölüm; ikinci bölüm ise yabancı dil öğrenimine ilişkin inançlarınızı belirlemeye yönelik maddelerden oluşmaktadır.

Anket sonuçlarının sağlıklı olabilmesi için maddelere ilişkin görüşlerinizi samimi ve doğru olarak işaretlemeniz gerekmektedir. Lütfen anketlerin üzerine isim belirtmeyiniz.

İlgi ve yardımlarınız için şimdiden teşekkür ederiz.

M. Emin Munis

Çağ Üniversitesi

BİRİNCİ BÖLÜM (KİŞİSEL BİLGİLER)

Cinsiyet	Bayan ()	Erkek ()
Yaşınız		
Eğitim seviyeniz	Ön lisans ()	Lisans ()
Eğitim gördüğünüz program adı		
Sınıfınız		

İKİNCİ BÖLÜM (YABANCI DİL ÖĞRENME YARGILARI ENVANTERİ- BALLI)

Bu bölümde dil öğrenmeye ilişkin inançlarınızı öğrenmek amacıyla çeşitli maddeler verilmiştir. Lütfen her bir maddeye ilişkin yanıtınızı;

1-Kesinlikle Katılmıyorum, 2-Katılmıyorum, 3-Fikrim Yok, 4-Katılıyorum, 5-Kesinlikle Katılıyorum, seçeneklerinden birine (X) işareti koyarak cevaplandırınız. **4 ve 14.** maddeler için katılma düzeyiniz değil; 4. madde için 1-5 arası İngilizce zorluk algınız, 14. madde için 1-5 arası dili akıcı konuşmak için sizce gerekli zaman dilimi sorulmaktadır. Bu iki soru için 1-5 arası bir seçeneği işaretleyiniz.

M.NO	MADDELER	Kesinlikle Katılmıyorum	Katılmıyorum	Fikrim Yok	Katılıyorum	Kesinlikle Katılıyorum
		1	2	3	4	5
1.	Çocuklar bir yabancı dili yetişkinlere göre daha kolay öğrenir.					
2.	Bazı insanlar yabancı bir dili öğrenmelerini kolaylaştıran özel bir yetenekle doğar.					
3.	Bazı dillerin öğrenilmesi diğerlerine göre daha kolaydır.					
4.	Öğrenmeye çalıştığım dil, 1) çok zor bir dildir, 2) zor bir dildir, 3) orta zorlukta bir dildir, 4) kolay bir dildir, 5) çok kolay bir dildir.					
5.	Öğrenmeye çalıştığım dil anadilimle aynı şekilde yapılandırılmıştır.					
6.	En sonunda bu dili çok iyi konuşabileceğime inanıyorum.					
7.	Yabancı bir dili mükemmel bir aksanla konuşmak önemlidir.					
8.	Yabancı bir dili konuşmak için, o dili konuşan yabancı ülkenin kültürünü bilmek gerekir.					
9.	Doğru söylemeyi öğreninceye kadar yabancı dilde bir şey söylememelisin.					
10.	Bir yabancı dili konuşabilen bir kimse için başka bir dili öğrenmek daha kolaydır.					
11.	Yabancı bir dili o dilin konuşulduğu ülkede öğrenmek daha iyidir.					
12.	Öğrenmeye çalıştığım dili konuşan birini duyarsam, pratik yapmak için gidip onunla konuşurum.					
13.	Yabancı dilde bir sözcüğü bilmiyorsanız, onu tahmin edersiniz.					
14.	Bir kimse dil öğrenmeye günde bir saat harcarsa, akıcı bir şekilde konuşmaya başlaması ne kadar zaman alır?					

	1) 1 yıldan az, 2) 1-2 yıl, 3) 3-5 yıl, 4) 5-10 yıl, 5) Günde 1 saat çalışarak dil öğrenilmez.					
15.	Yabancı dil öğrenme yeteneğim var.					
16.	Yabancı bir dili öğrenmek çoğunlukla çok sayıda yeni sözcük öğrenmekle olur.					
17.	Çok tekrar ve pratik yapmak önemlidir.					
18.	Başka insanların önünde yabancı dilde konuştuğumda utanırım.					
19.	Başlangıçta hata yapmana izin verilirse, bu hatalar yerleşir ve daha sonra onlardan kurtulmak zor olur.					
20.	Yabancı bir dili öğrenmek çoğunlukla çok sayıda gramer/dilbilgisi kuralı öğrenmekle olur.					
21.	Dil laboratuvarında pratik yapmak önemlidir.					
22.	Kadınlar yabancı dil öğrenmede erkeklerden daha iyidir.					
23.	Bu dili çok iyi öğrenirsem, onu kullanmak için çok fırsatım olacaktır.					
24.	Yabancı bir dili konuşmak onu anlamaktan daha kolaydır.					
25.	Yabancı bir dili öğrenmek diğer okul derslerini öğrenmekten farklıdır.					
26.	Yabancı bir dili öğrenmek çoğunlukla çeviri yapmakla olur.					
27.	Bu dili çok iyi öğrenirsem, bu iyi bir iş bulmama yardımcı olacak.					
28.	İngilizcede okuma ve yazma, konuşma ve duyduğunu anlamadan daha kolaydır.					
29.	Matematik ve fen’de iyi olan insanlar yabancı dil öğrenmede iyi değillerdir.					
30.	Türkler, bir yabancı dili öğrenmenin önemli olduğunu düşünür.					
31.	Bu dili, onu ana dili olarak konuşan insanları daha iyi tanımak için öğrenmek istiyorum.					
32.	Birden fazla dil konuşan insanlar çok zekidirler.					
33.	Türkler yabancı dil öğrenme konusunda iyidirler.					
34.	Herkes bir yabancı dili konuşmayı öğrenebilir.					

7.3. Appendix 3: Interview Questions

GÖRÜŞME SORULARI

A. Epistemolojik İnançlar

1. Size göre bilgi nedir? Bilgiye nasıl ulaşılır? Neden?
2. Bilimsel bilgiler kesin midir yoksa değişebilir nitelikte midir? Neden?
 - Herhangi bir alandaki uzmanların söyledikleri bilgilerin doğruluğunu araştırmalı mıyız? Neden?
3. Herhangi bir konuyla ilgili bir sorunun tek bir doğru cevabı mı vardır yoksa birden fazla cevabı olabilir mi? Neden?
4. Öğrenme yeteneği doğuştan gelen bir yetenek midir yoksa çalışılarak geliştirilebilir mi? Neden?
5. Size göre bir öğrenci herhangi bir bilgiyi nasıl öğrenir?
 - Bir öğrencinin öğrenme için neler yapması gerekir? Neden?
6. Bir konuyu öğrenmede zorluk yaşadığınızda nasıl bir yol izlersiniz veya neler yaparsınız?
7. Öğrenmeyle ilgili desteğe ihtiyaç duyduğunuz zamanlar oluyor mu?
 - Okullarda öğrencilerin öğrenme becerilerinin geliştirilmesine yönelik neler yapılabilir? Neden?
8. Size göre başarılı öğrencilerin en önemli özelliği nedir?
 - Başarılı öğrenci ders kitaplarındaki bilgileri okuyup ezberleyen kişi midir? Neden?

Yabancı Dil Öğrenimine İlişkin İnançlar

1. İngilizce seviyenizi nasıl değerlendiriyorsunuz?

- İngilizcede en çok hangi becerinizin (konuşma, yazma, okuduğunu anlama, dinlediğini anlama) diğerlerine göre daha iyi geliştiğini düşünüyorsunuz? Neden?

2. Size göre İngilizcede hangi beceriyi geliştirmek diğerlerine göre daha kolaydır? Neden? (Konuşma, yazma, okuduğunu anlama, duyduğunu anlama).

- Bu becerilerde en çok zorlandığınız hangisidir? Neden?

3. Bir dili öğrenebilmek için size göre hangisine çok çalışmak başarılı olmayı sağlar? Neden? (okuma, yazma, dinleme, konuşma, kelime öğrenme, gramer -dil bilgisi-, çeviri yapma).

4. Yabancı dil öğrenmek doğuştan gelen bir yetenek midir yoksa çalışılarak geliştirilebilir mi? Neden?

5. Yabancı dil öğrenme konusunda kendinizi yetenekli görüyor musunuz? Neden?

6. İlerde İngilizceyi çok iyi seviyede öğrenebileceğinize inanıyor musunuz? Neden?

- Cevabınız evetse, bunu nasıl gerçekleştirebileceğinizi düşünüyorsunuz?

7. Yabancı dil öğrenmenin size ne katkıları vardır? Sizi yabancı dil öğrenmeye iten sebepler nelerdir?

8. Yabancı dil öğrenme konusunda ne tür sorunlar yaşıyorsunuz? Size göre dil öğrenmede sorun yaşayan kişiler başarı için nasıl çalışmalı ve neler yapmalılar?

7.4. Appendix 4: Permission Letter

Evrak Tarih ve Sayısı: 06/03/2017-E.2657



T.C.
ŞIRNAK ÜNİVERSİTESİ REKTÖRLÜĞÜ
Yabancı Diller Bölümü Başkanlığı

Sayı :82051161-302.99/
Konu :Anket

Sayın Okt. Mehmet Emin MUNİS

Yüksek Lisans Teziniz için "Üniversite Öğrencilerinin Epistemolojik ve Yabancı Dil Öğrenimine İlişkin İnançların Değerlendirilmesi"yle alakalı anket çalışmanızı uygulama isteğiniz Başkanlığımızca uygun görülmüştür.
Bilgi ve gereğini rica ederim.

e-imzalıdır
Okt. Muharrem ÜNEY
Bölüm Başkanı V.

Mevcut Elektronik İmzalar

MUHARREM ÜNEY (Yabancı Diller Bölümü Başkanlığı - Bölüm Başkanı V.) 06/03/2017 13:49

Yeni Mahalle Mehmet Emin Acar Kampüsü
Merkez/ŞIRNAK
Telefon: 04862168240
E-Posta: genelsekreterlik@simak.edu.tr

Ayrıntılı bilgi için irtibat: V.Bakır
Faks: 04862168243

Elektronik Ağ: www.sirnak.edu.tr

Bu belge 5070 sayılı Elektronik İmza Kanununun 5. Maddesi gereğince güvenli elektronik imza ile imzalanmıştır.

7.5. Appendix 5. Ethics Approval

[illegible]