



An Investigation to Determine of the Tourism Students' Epistemological Beliefs in Turkey

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Abstract

The main purpose of this research is to determine epistemological belief level and whether the epistemological beliefs differences according to gender, education department, class level and graduated high school type variable of the students receiving education in tourism faculty in Turkey. General survey model were used in this study and the population of the the research comprise 426 students who educated in tourism faculty in a state university in Turkey academic year of the 2017-2018 and 218 usable responses from students has been obtained. In order to get the required data, "Personal Information Form" and "Epistemological Belief Questionnaire" were used. "Epistemological Belief Questionnaire" (EBQ), developed by Schommer (1990) and adopted into Turkish culture by Deryakulu and Büyüköztürk (2002). In this study, students who study tourism at a state university have 116,4174 total score from Epistemological Belief Questionnaire. This score shows that epistemological belief levels of students are underdeveloped. At the end of research, the following hypothesis: "there are significant differences between total epistemological beliefs and gender variable, education department variable, class level variable and graduated high school type variable of participants" have been refused.

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INTRODUCTION

Knowledge confronts us as a concept that concerns all societies in production, understanding and results throughout history. Especially in the process of information age, searching the ways to achieve the information society, concept of knowledge is within everyone's area of interest and stands on our way as a very natural result (Engin, 2005). Nowadays, knowledge is considered to be an important factor of production as it is the base of economic and social transformation.

Külcü (2000) indicates that "In today's world where we find ourselves more and more familiar with the term 'knowledge professional', it should not be forgotten that the priority of a professional is to think in their own area of profession and to put these ideas into practice and that professionalism on knowledge requires perception of multidimensional approaches".

In recent years, the integration of philosophy and educational fields with each other and the studies on knowledge and learning have been increasing and the concept of "epistemology" has emerged as a field of study that can be noticed new its important and situation (Demir & Akınoğlu, 2010).

The academicians assigned position in tourism faculties are assuming function as a bridge between with their completely knowledge embracing the theory and practice in the concerned field and the students who need this knowledge in order to requiring qualified personnel in the sector. Therefore, it is necessary to research the students' epistemological beliefs in other words, how the occurs tendency towards knowledge. Furthermore nowadays the transformation into commodity output of knowledge by degree, understanding the importance of intellectual capital in management, in the process of the transformation of organizations from knowing individuals to understanding, thinking and learning individuals the mediation role of epistemology is become crucial. The epistemological beliefs are important in the connection between the academicians who contributing to the knowledge production process which is the most important ring of the knowledge chain and the students who they are making an effort to develop their intellectual powers.

Concerning epistemological beliefs considered to be an important area of personal difference in learning carried out on teachers in various departments more education faculties in physical education and sports teaching department (Alemdağ, 2005; Güngör & Yenel, 2017; Özşaker, Canpolat & Yıldız, 2011), social studies education department (Kaya & Ekici, 2017; Biçer, Er & Özer, 2013; Keskin & Aydın, 2016), mathematics department (Kaleci, 2012; Keskin & Aydın, 2016), primary school teacher department (Sevgi & Armağan, 2017; Ekinci & Tican, 2017), science and physics teacher department (Koç & Memduhoğlu, 2017), music teacher department (Akyüzlüer, 2014; Deniz, 2014) are remarkable in Turkey. In the faculties of education, there are a comparison studies between the students trainee in the Fine Arts Faculty and the students in other fields (Oğuz & Sarıçam, 2015). Furthermore, studies on the personal epistemological beliefs of university students trainee in the field of health (Karadag et al., 2018; Arslan & Sarikaya, 2018) are encountered.

According to the literature review, there are several studies examining tourism epistemology with different aspects (Tribe, 1997; Ayikoru, 2009; Belhassen & Caton, 2009; Esteban, Cetin & Antonovica, 2015). However, with the studies which examined the individual epistemological beliefs of the students trainee in tourism field (Zwaal &

Otting, 2007; Otting, Zwaal & Gijsselaers, 2009; Hashim et al., 2009, Otting, Zwaal, Tempelaar et al.; Hsu, 2014) are restricted according to students trainee in education field, the study based on the relationship between epistemological beliefs and demographic factors and moreover study to determine the epistemological beliefs of tourism students in Turkey is unprecedented. This study contributes to the literature in this direction.

The study consists of two main topics: literature and practice. In the first chapter of the research literature review for epistemological belief term is examined. The data which is obtained via questionnaire applied to students trainee in tourism faculty is analyzed in the second chapter. Proposals are made related to the subject in the conclusion.

Literature Review

Concept of Epistemological Belief

The concept of knowledge, which began to query in concern with what it is and how it should be defined was tried to be clarification by many philosophers such as Socrates, Plato, Aristoteles, Descartes, Protagoras, Timon, Hegel and Farabi from different aspects.

Başdemir (2010) states that “When the thinkers who influence contemporary epistemology started to be mentioned should go back to Plato, Plato’s approach to the definition and component of knowledge especially in the Theaetetus dialogue, has continued to be effected with the name of traditional epistemology come until today and that Plato’s definition of knowledge indicate as “justified true belief” is the basis for discussions on knowledge in contemporary epistemology. The formal elements of knowledge have been accepted as “(1) belief”, “(2) accuracy” and “(3) justification” from Plato (427-347 BC) in classical minimum conditions (Başdemir, 2010). Epistemology has been the province of philosophers for long years, but only in recent decades have psychologists begun to investigate individuals’ conceptions of knowledge and knowing and their influence on learning (Hofer & Bendixen, 2012).

The concept of epistemology was first used by James Frederick Ferrier, a Scottish philosopher in 1854 (Wolenski, 2004). The concept of epistemology which is considered as a theoretical part of philosophy science, derived from the Greek words of “episteme= knowledge, science” and “logos: study” (Horrigan, 2007). Turkish Language Association (www.tdk.gov.tr, 2018) defines the concept of epistemology as “knowledge theory”. Epistemology examines the relationship between knowledge and the researcher during discovery. Therefore, refers to how we come to know what we know (Killiam, 2013). According to Schommer (1990) epistemology is “a belief system that is composed of several more or less independent dimensions and epistemological beliefs imply individuals’ beliefs about the nature and structure of knowledge”. Hofer and Pintrich (1997) define the epistemology as “epistemology is an area of philosophy concerned with the nature and justification of human knowledge”.

Schommer (1994) indicates that the epistemology perception is both sensual and cognitive by defining “personal epistemology are the beliefs of persons about source and certainty of knowledge as well as the control and speed of learning.” Hofer (2005) describes the personal epistemology as “an individuals’ cognitions about the nature of knowledge and the nature of knowing”. Hofer and Pintrich (1997; Hofer, 2000) in order to explain personal epistemology, they initially divided the concept of epistemology into two clusters as the nature of knowledge and the nature of knowing. Then examined them in two dimensions that the nature of knowledge as the certainty of

knowledge and the simplicity of knowledge and the nature of knowing as the source of knowledge and the justification of knowledge.

Psychological studies concerns with personal epistemology in the literature have been accepted by William Perry in 1968 (Hofer & Pintrich, 1997; Schommer-Aikins, 2002; Hofer & Bendixen, 2012).

In 1954, the Bureau of Study Counsel at Harvard College staff consulted Perry to investigate the experiences of undergraduate students and thereupon Perry interviewed with his research team with volunteer students at Harvard and Radcliffe Colleges in 1958, 1962 and 1963. During these interviews, they developed and used a Checklist of Educational Views (CLEV) (Perry et al., 1968). At the end of the interviews Perry published a report in 1968. In his study, he concluded that many students enter college believed that knowledge was simple, certain and handed down by authority (Schommer, 1990). By the time students reached the senior year, they believed that knowledge was complex, tentative and derived from reason and empirical inquiry (Schommer-Aikins, 2004). The model developed by Perry at the end of the research is based on behavioral development with a special reference to their assumptions about the nature and origin of knowledge and values as the students interpret the world (Perry et al., 1968). In other words, it can be said that Perry's study focuses on the development stages of the students' epistemological beliefs (Schommer, 1990). Perry's study has inspired many researchers to focus on different aspects of personal epistemology (Schommer-Aikins, 2004) and it has been a pioneer in creating new models for researchers in this field by shedding light on next research.

Perry's study has been criticized for college students generalizing from only elite male sample in the population (Hofer & Pintrich, 1997). Belenky, Clinchy, Goldberger and Tarule, based on the model building by Perry, carry out studies to reveal the epistemological beliefs of women and actualized in-depth interviews with 135 women of all ages. The women interviewed consisted of different levels of education, race and ethnicity. As a result of their research, they have identified five basis perspectives in women's epistemological development. These are; silence, received knowledge, subjective knowledge, constructed knowledge and procedural knowledge (Khine & Hales, 2010; Hettich, 1997).

In the epistemology model developed by Baxter Magolda (1992), the ways of knowing are examined at three levels and these ways of knowing; absolute, transitional and independent.

The "Reflective Judgment Model" developed by King and Kitchener consists of seven stages consisting of three levels and includes a developmental process. Stages 1, 2, and 3 compose of pre-reflective level, stages 4 and 5 compose of quasi-reflective level and stages 6 and 7 compose of reflective level (King & Kitchener, 2004).

Kuhn (1999) examined the epistemological attitudes of individuals while explaining the development of the critical thought model formed three classes, namely absolutist attitude, multiplists attitude and evaluative attitude.

Schoomer's start out to determine what are the students' beliefs about the nature of knowledge and conceptualise that factors affecting them (1990) are accepted as one of the pioneering studies in the field of epistemology. In his study, Schommer (1990) argues that personal epistemology is a belief system and beliefs about the nature of knowledge are too complex to be captured in a single dimension. For this reason; she has improved a five-dimensional structure ground on hypothesis that simple knowledge, omniscient authority, certain knowledge, innate ability and

quick learning and 63 item scale for testing these dimensions in her study (Schommer, 1990). As a result of the study; she has acquired four dimensions namely innate ability, simple knowledge, quick learning and certain knowledge (Schommer, 1990).

Methodology

The Purpose of the Research

Hofer and Pintrich (1997) state that “in any case, the examination of the development of epistemological theories will help us to understand students’ and teachers’ beliefs about knowledge and their thinking about knowledge. This information will then help us better understand the teaching and learning processes in classrooms”. In recent years, there has been an increasing interest in university students’ epistemological beliefs and development.

There are researches examining the epistemological beliefs of students from different perspectives for a particular profession or training of a profession in the literature (Hashweh, 1996; Roex, Degryse, Clarebout, 2011; Dunekacke, Jenben, Eilerts ve Blomeke, 2016; Brownlee, 2004), and also similar researches exist in Turkey (Alemdağ, 2005; Güngör ve Yenel, 2017; Özşaker, Canpolat ve Yıldız, 2011; Kaya ve Ekici, 2017; Biçer, Er ve Özer, 2013; Keskin ve Aydın, 2016; Kaleci, 2012; Sevgi ve Armağan, 2017; Ekinci ve Tican, 2017, Koç ve Memduhoğlu, 2017, Akyüzlür 2014; Deniz, 2014; Karadağ ve diğ., 2018; Arslan ve Sarıkaya, 2018) .

When the literature is examined; in Perry's (1968) pioneering study on epistemological belief, it was observed that the epistemological beliefs of the students emphasized the developmental stages and that the epistemological beliefs of the students also changed when the grade level increased. Perry's study criticized the fact that the sample consisted of only male students and Belenky, Clinchy, Goldberger and Tarule (Khine and Hales, 2010; Hettich, 1997), aimed to determine the epistemological beliefs of women on the research based on Perry’s model.

In this study, based on the model developed by Schommer on students; it is investigated whether there is a difference between epistemological beliefs and class level and gender. In addition, as a supposition there will be a difference in the epistemological beliefs of male and female students due to differences in culture. Since there are two different departments in the university on field of tourism, the department variable was also included in the research. Oğuz and Sarıçam (2015) made a comparison between the students studying in the faculties of fine arts and the students studying in other fields to determine the differences between the departments. Besides, the high school variable of graduation due to the presence of students from different high schools of tourism education was also included in the study. Due to the incomplete answers to the categorical question asked to determine the relationship between level of epistemological belief and academic achievement, the hypothesis developed about this variable could not be included in the study.

The main hypotheses developed within the framework of the literature discussed above are given below.

- **H₁**: There is a significant difference between epistemological beliefs and gender of participants.
- **H₂**: There is a significant difference between epistemological beliefs and education department of participants.
- **H₃**: There is a significant difference between epistemological beliefs and class level of participants.

➤ **H₄**: There is a significant difference between epistemological beliefs and graduated high school type of participants.

In addition, the hypothesis developed to test the difference between variables and epistemological belief sub-dimensions are shown below;

➤ **H₅**: There is a significant difference between the belief of learning depending on effort and gender of participants.

➤ **H₆**: There is a significant difference between the belief of learning depending on ability and gender of participants.

➤ **H₇**: There is a significant difference between the belief of the existence of only one truth and gender of participants.

➤ **H₈**: There is a significant difference between the belief of learning depending on effort and education department of participants.

➤ **H₉**: There is a significant difference between the belief of learning depending on ability and education department of participants.

➤ **H₁₀**: There is a significant difference between the belief of the existence of only one truth and education department of participants.

➤ **H₁₁**: There is a significant difference between the belief of learning depending on effort and class level of participants.

➤ **H₁₂**: There is a significant difference between the belief of learning depending on ability and class level of participants.

➤ **H₁₃**: There is a significant difference between the belief of the existence of only one truth and class level of participants.

➤ **H₁₄**: There is a significant difference between the belief of learning depending on effort and graduated high school type of participants.

➤ **H₁₅**: There is a significant difference between the belief of learning depending on ability and graduated high school type of participants.

➤ **H₁₆**: There is a significant difference between the belief of the existence of only one truth and graduated high school type of participants.

With this research, it is aimed to determine the epistemological beliefs of tourism students and to guide the academicians in their motivation and success during the education process and thus to enable them to develop more effective educational strategies in the field. Being able to be effective and productive in tourism education will also contribute to the edification of more qualified managers in the sector. There was no study found on this area in Turkey on the literature search. The contribution of the study to the literature is on this perspective.

Method of the Research

The population of the the research comprise 426 students who educated in Tourism Faculty in a state university in Turkey, academic year of the 2017-2018 and 218 usable responses from students has been turned. In this research, simple random sampling is used, where each element of the populationis equally presented (Arıkan, 2004). In

addition, face-to-face survey method was used to obtain data. The purpose of the research is explained to the students before the questionnaires are applied.

In order to obtain the required data, "Personal Information Form" and "Epistemological Belief Questionnaire" were used.

"Personal Information Form" consist of five categorical questions about gender, education department, class level, graduated high school type and general academic average.

"Epistemological Belief Questionnaire" (EBQ), developed by Schommer (1990) and adopted into Turkish culture by Deryakulu and Büyüköztürk (2002). Original scale was composed of four dimensions as innate ability, simple knowledge, quick learning and certain knowledge. The scale is a 5-point Likert-type scale with "strongly disagree" and "strongly agree". Because of cultural diversity the scale adaptation to Turkish, the Turkish version had three factors namely "the belief of learning depending on effort" (BLDE), "the belief of learning depending on ability" (BLDA) and "the belief of the existence of only one truth" (BEOOT)

The high score obtained from each factor of the EBQ indicates that the person has undeveloped/immature beliefs in regard to that factor, in case the low score shows that the person has developed/matured beliefs about that factor. Deryakulu and Büyüköztürk (2005) re-examined the factor structure of the epistemological beliefs questionnaire and stated that the 10. item in the first factor of the scale should be included in the second factor and the 24. item should be excluded from the scale due to the low level of item-factor correlation. The analysis was realize on these items.

The Cronbach Alpha inner consistencies of coefficients of the new version scale are .84 for the first factor, .69 for the second factor, .64 for the third factor and .81 for the whole scale. The lowest and highest values of the scores that can be taken from the factors of the scale are respectively 19-86 points for the first factor, 8-40 points for the second factor and 9-42 points for the third factor. The highest score is 168 and the lowest score is 36 can be taken in all (Deryakulu & Büyüköztürk, 2002).

On the score of training in the field of tourism education students take high scores from the scale was displaying undeveloped/immature epistemological beliefs and low scores was displaying advanced/mature epistemological beliefs; the scores have accepted between 36 and 69 were "highly developed", scores between 69 and 102 were "developed", scores between 102 and 135 were "underdeveloped", and scores between 135 and 168 were "undeveloped".

Statistical Analysis of the Data

The data obtained from the research was analyzed by the SPSS 20.0 (Statistical Package for Social Sciences). Percentage, mean, standard deviation is used as a descriptive statistical methods in the evaluation of the data. The data obtained from the research were try out to normality tests with Kolmogorov-Smirnov and Shapiro-Wilks. As a result of the analysis of both tests sig. values were found as 0.000. It can be said that the distribution of scores are not normal because of the sig. value is less than 0.05 of the data. Non-parametric tests were used in the research due to this result. The Man Whitney-U test was used to compare quantitative data between two independent groups and

Kruskall Wallis-H test was used to compare quantitative data over two independent groups. The findings were evaluated in the 95% confidence interval and 5% significance level.

Findings

Reliability of the Research

The total Cronbach's Alpha value of data was found 0.873 ($n = 33$) for all the items in the scale before the factor analysis. This value is acceptable in the literature due to above $\alpha=0.70$ (Altunışık, Coşkun, Bayraktaroğlu et al., 2007) and shows that its reliability is quite good.

Results of the Factor Analysis

In order to test the validity of the scale, an explanatory factor analysis was done. In order to evaluate whether the data set is proper for factor analysis, the value of Kaiser-Meyer-Olkin (KMO) and the Bartlett test were examined. The KMO value can be change between 0-1 and if the KMO value of 1 indicates that the variables can be predicted perfectly and accurately. KMO sampling adequacy of the acceptable lower limit is 0.50 (Durmuş, Yurtkoru & Serra 2013). In this research, KMO coefficient value was found to be 0.866 and Bartlett sphericity test result was [Approx. Chi-Square=2693.598, $df=528$, sig .000 ($p<.001$)]. According to the results of KMO and Bartlett test is decided to carry out factor analysis. The decision about which factor 33 items that used in factor analysis will group under, has made by looking factor loadings that variables gets each factor for. Varimax rotation method was used for rotation. As a result of the factor score result analysis, the 6th, 7th, 13th, 28th, 31st and 32th items have a factor value of less than 0.50 and 34th item which was take part in the third factor in the original scale and the result of the analysis it was take part in the first factor have been excluded.

Factor analysis and Cronbach's Alpha values of items measuring personal epistemological belief are given in Table 1. These beliefs called "the belief of learning depending on effort" (BLDE), the belief of learning depending on ability (BLDA) and belief of the existence of only one truth (BEOOT) as stated by Deryakulu and Büyüköztürk (2005).

The belief of learning depending on effort 0,882 ($n=14$), the belief of learning depending on ability 0,839 ($n=8$) and the belief of the existence of only one truth 0,699 ($n=4$) have Cronbach's alpha value. The total Cronbach's Alpha value was found of the scale is 0.842 ($n=26$) after the factor analysis. While the of Cronbach's Alpha value before the factor analysis was 0.873 ($n=33$) for all items in the scale, the total Cronbach's Alpha value of the scale decreased after the factor analysis to 0.842 ($n=26$).

Table 1. Factor Loadings and Chronbach's Alpha for Sub-dimensions of Epistemological Belief

Items	Factor Loadings of Items			Cronbach's Alpha
	1	2	3	
1. Factor: BLDE				0,882
1 .A course in study skills would probably be valuable.	,607			
2. I often wonder how much my school leaders really know.	,587			
3 . The most successful people have discovered how to improve their ability to learn.	,705			
4. To me, studying means getting the main ideas from the text rather than details.	,552			
5. The most important part of scientific work is original thinking.	,651			
8. I find it refreshing to think about issues that authorities can't agree on	,564			
9. Everyone needs to learn how to learn	,734			
11. Wisdom is not knowing the answers but knowing how to find the answers	,696			
12. If a person can't understand something within a short amount of time, he/she should keep on trying.	,646			
14. Often, even advice from experts should be questioned.	,654			
15. Usually you can figure out difficult concepts if you eliminate all outside distractions and really concentrate.	,561			
16. A really good way to understand a textbook is to reorganize the information according to your own personal scheme.	,510			
17. Learning is a slow process of building up knowledge.	,680			
18. Today's facts may be tomorrow's fiction.	,529			
3. Factor: BLDA				0,839
19. Sometimes you just have to accept answers from a teacher even though you don't understand them.		,707		
20. Some people are born good learners, others are just stuck with limited ability.		,667		
21. The really smart students don't have to work hard to do well in school		,669		
22 . Working hard on a difficult problem for an extended period of time only pays off for really smart students.		,790		
23. If a person tries too hard to understand a problem, he/she will most likely just end up being confused.		,613		
25. Students who are "average" in school will remain "average" for the rest of their lives.		,599		
26 .You will just get confused if you try to integrate new ideas in a textbook with knowledge you already have about a topic.		,606		
27. A good teacher's job is to keep his/her students from wandering from the right track		,633		
4. Factor: BEOOT				0,699
29. Most words have one clear meaning			,619	
30. Truth is unchanging.			,599	
33. It's a waste of time to work on problems which have no possibility of coming out with a clear-cut and unambiguous answer.			,501	
35. The best thing about science courses is that most problems have only one right answer.			,644	

The percentage of variance extracted by the three factors was 42.729%. Multiple factored types in literature, declared variance can be considered enough if ranges between percentages of 40% and 60% (Çokluk et al. 2012).

Descriptive Statistics

Distribution of the sample according to the gender; 39% of the sample (n=85) was female and the other 61% (n=133) was male. Distribution of the sample according to the years of education; 8.7% (n=19) was 1. class, 33% (n=72) was 2. class, 33% (n=72) was 3. class, and 25.2% (n=55) was 4. class. Distribution of the sample according to the education department; 88.5% (n=193) was Tourism Management and 11.5% (n=25) was Travel Agency and Tourism Guidance. Distribution of the sample according to the graduated high school type; 5% (n=1) was graduated

from Science High School, 62.4% (n=136) was graduated from Anatolian High School, %27.1 (n=59) was graduated from Vocational and Technical Anatolian High School (tourism program) and 5.5% (n=12) was graduated from other high schools. Other people indicated that who were marked the other option that four students were graduated from open high school, two students were graduated from multi-program high school and three students were religious vocational high school and one students was graduated from the foundation college. Two students were not indicate the high school type.

Table 2. Demographic Characteristics of the Sample

Demographic Characteristics		F (n)	%
Gender	Female	85	39.0
	Male	133	61.0
	Total	218	100
Class Level	1. Class	19	8.7
	2. Class	72	33.0
	3. Class	72	33.0
	4. Class	55	25.2
	Total	218	100
Education Department	Tourism Management	193	88.5
	Travel Agency and Tourism Guidance	25	11.5
	Total	218	100
Graduated High School Type	Science High School	1	0.5
	Anatolian High School	136	62.4
	Vocational and Technical Anatolian High School (Tourism Program)	59	27.1
	Other	12	5.5
	Total	218	100

The descriptive statistics of the participants in terms of the total score and sub-dimensions taken from the Epistemological Belief Questionnaire (EBQ) are given in Table 3 as mean, standard deviation, lowest and highest value.

When Table 3 is examined; found as the average of the “the belief of learning depending on effort” was 67,22477, the average of the “the belief of learning depending on ability” was 21,97706 and the average of the “the belief of the existence of only one truth” was 27,2156 of the training tourism education student. Students have received 116,4174 points from the “Epistemological Belief Questionnaire”. This results shows that the epistemological belief levels of students are underdeveloped.

Table 3. Participants’ Scores of Epistemological Belief and Sub-Dimension

Factors	\bar{X}	SS	Lowest Value	Highest Value
BLDE (19-86)	67,22477	11,56309	21	85
BLDA (8-40)	21,97706	7,540027	8	40
BEOOT (9-42)	27,2156	6,323414	10	40
EB (Total) (36-168)	116,4174	18,17871	46	160

Hypothesis Testing

When Table 4 is examined; there was no significant difference between the epistemological beliefs and gender variable of participants ($p=0.514>0.05$). There are no significant difference between the belief of learning depending on effort ($p=0,619>0,05$), the belief of the existence of only one truth ($p=0,767>0,05$) and gender variables of participants. There is a significant difference in the belief of learning depending on ability sub-dimension for the benefit of women group in terms of statistically ($p=0,005< 0,05$). In other words, the belief of learning depending on ability of women are more advanced and mature than the belief of learning depending on ability of men.

Table 4. Mann Whitney U Test Results for the Epistemological Beliefs of Participants in terms of Gender Variable

	Gender	n	Mean Rank	Rank Sum	p
BLDE	Male	133	107,80	14338,00	,619
	Female	85	112,15	9533,00	
BLDA	Male	133	119,17	15849,00	,005
	Female	85	94,38	8022,00	
BEOOT	Male	133	108,49	14429,50	,767
	Female	85	111,08	9441,50	
EB (Total)	Male	133	111,73	14859,50	,514
	Female	85	106,02	9011,50	

*Mann Whitney U test

When Table 5 is examined; there is no significant difference between the epistemological beliefs and training department of the participants ($p=0,569>0,05$). There is no significant difference between training department variable of participants and belief of learning depending on ability ($p=0,065>0,05$) and the belief of existence of only one truth ($p=0,234>0,05$). There is a significant difference in the belief of learning depending on effort sub-dimension for the benefit of participants who training Travel Agency and Tour Guiding department in terms of statistically ($p=0,022<0,05$). In other words, the belief of learning depending on effort of students who training Tour Guiding and Travel Agency department is more advanced/mature than the belief of learning depending on effort of students who training Tourism Management department.

Table 5. The Mann Whitney U Test Results for the Epistemological Beliefs of Participants in terms of Training Department Variable

	Department	n	Mean Rank	Rank Sum	p
BLDE	Tourism Management	193	113,02	21812,00	,022
	Travel Agency and Tourism Guidance	25	82,36	2059,00	
BLDA	Tourism Management	193	106,67	20587,50	,065
	Travel Agency and Tourism Guidance	25	131,34	3283,50	
BEOOT	Tourism Management	193	107,68	20781,50	,234
	Travel Agency and Tourism Guidance	25	122,80	3089,50	
EB (Total)	Tourism Management	193	110,38	21302,50	,569
	Travel Agency and Tourism Guidance	25	102,71	2568,50	

*Mann Whitney U test

When Table 6 is examined; there was no significant difference between the epistemological beliefs and class level of the participant ($p=0,798>0,05$). There is no significant difference between class level variable and the belief of learning depending on effort ($p=0,931>0,05$), the belief of learning depending on ability ($p=0,654>0,05$), the belief of the existence of only one truth ($p=0,182>0,05$) sub-dimensions in the level of $p<0.05$.

Table 6. The Kruskal Wallis H Test Results for the Epistemological Beliefs of Participants in terms of Class Level Variable

	Level	n	Mean Rank	Chi-Square	df	p
BLDE	1. Class	19	105,13	,443	3	,931
	2. Class	72	108,32			
	3. Class	72	113,36			
	4. Class	55	107,50			
BLDA	1. Class	19	116,26	1,625	3	,654
	2. Class	72	115,71			
	3. Class	72	103,88			
	4. Class	55	106,40			
BEOOT	1. Class	19	105,42	4,864	3	,182
	2. Class	72	120,90			
	3. Class	72	98,04			
	4. Class	55	110,99			
EB (Total)	1. Class	19	102,16	1,012	3	,798
	2. Class	72	114,95			
	3. Class	72	106,04			
	4. Class	55	109,43			

*Kruskal Wallis H test

When Table 7 is examined; there was no significant difference between the epistemological beliefs and graduated high school type of the participant ($p=0,294>0,05$). There is no significant difference between graduated high school type of participants and the belief of learning depending on effort ($p=0,820>0,05$), the belief of the existence of only one truth ($p=0,479>0,05$) sub-dimensions of participants in the level of $p<0.05$. There is a significant difference in the belief of learning depending on ability sub-dimension according to the graduated high school type of participants in terms of statistical.

Table 7. The Kruskal Wallis H Test Results for the Epistemological Beliefs of Participants in terms of Graduated High School Type Variable

	Department	n	Mean Rank	Chi-Square	df	p
BLDE	Science High School	1	52,50	,921	3	,820
	Anatolian High School	136	105,15			
	Vocational and Technical Anatolian High School (Tourism Program)	59	105,24			
	Other	12	97,83			
BLDA	Science High School	1	176,00	9,316	3	,025
	Anatolian High School	136	97,68			
	Vocational and Technical Anatolian High School (Tourism Program)	59	122,40			
	Other	12	87,83			

BEOOT	Science High School	1	155,50	2,482	3	,479
	Anatolian High School	136	100,74			
	Vocational and Technical Anatolian High School (Tourism Program)	59	113,01			
	Other	12	101,08			
EB (Total)	Science High School	1	152,50	3,718	3	,294
	Anatolian High School	136	100,17			
	Vocational and Technical Anatolian High School (Tourism Program)	59	115,70			
	Other	12	94,50			

*Kruskal Wallis H test

Conclusion

The focus of education has shifted from traditional teacher centered instruction to student centered and constructivist instruction (Zwaal & Otting, 2007). Achieving sustainable success in tourism education is not only related to the competence of academicians but also to the epistemological beliefs of tourism students. Besides, tourism education is not only given by teaching with open communication but also an area where experiential learning is essential. Therefore, as well as the sources of knowledge, students' perspectives on knowledge, in other words, their personal epistemological beliefs become crucial. At this point, determining the personal epistemological beliefs of tourism students will guide the academicians for providing qualified employees to the sector.

In this study, students who training tourism education from an public university have 116,4174 total score from Epistemological Belief Questionnaire. This score shows that epistemological belief levels of students are underdeveloped. This result shows that the knowledge about tourism were perceived as certain and can not be changed by students. This situation probably resulted from the confidence in academicians.

Besides the below hypothesizes were developed between variables and total epistemological beliefs of participants according to reseach analyze results:

- **H₁**: There is a significant difference between epistemological beliefs and gender of participants.
- **H₂**: There is a significant difference between epistemological beliefs and education department of participants.
- **H₃**: There is a significant difference between epistemological beliefs and class level of participants.
- **H₄**: There is a significant difference between epistemological beliefs and graduated high school type of participants hypothesis were rejected.

The results of the study do not match the results of Perry's (1968) study. In addition, the hypothesis that the point of view of knowledge may change due to gender differences was rejected. The reason that there is no significant difference between epistemological beliefs and the high school type variable and the department in which tourism students are educated may be due to the fact that both departments take students with Turkish-mathematics score type and tourism students mainly work on these lessons in high school period

Developed between the variables and epistemological belief sub-dimensions:

- **H₆**: There is a significant difference between the belief of learning depending on ability and gender of participants,
- **H₈**: There is a significant difference between the belief of learning depending on effort and education department of participants and

➤ **H₁₅**: There is a significant difference between the belief of learning depending on ability and graduated high school type of participants' hypothesis were accepted.

There is a significant difference between the belief of learning depending on ability and gender variable in favor of the female participants against to male participants, there is a significant difference between the belief of learning depending on effort and education department variable in favor of Tourism Agency and Tour Guiding against Tourism Management, there is a significant difference between the belief of learning depending on ability and graduated high school type variable in favor of other high school type against science high school, Anatolian high school, vocational and technical Anatolian high school (tourism program).

In spite of that developed between variables and epistemological belief sub-dimensions:

➤ **H₅**: There is a significant difference between the belief of learning depending on effort and gender of participants,

➤ **H₇**: There is a significant difference between the belief of the existence of only one truth and gender of participants,

➤ **H₉**: There is a significant difference between the belief of learning depending on ability and education department of participants,

➤ **H₁₀**: There is a significant difference between the belief of the existence of only one truth and education department of participants,

➤ **H₁₁**: There is a significant difference between the belief of learning depending on effort and class level of participants,

➤ **H₁₂**: There is a significant difference between the belief of learning depending on ability and class level of participants,

➤ **H₁₃**: There is a significant difference between the belief of the existence of only one truth and class level of participants,

➤ **H₁₄**: There is a significant difference between the belief of learning depending on effort and graduated high school type of participants and

➤ **H₁₆**: There is a significant difference between the belief of the existence of only one truth and graduated high school type of participants hypothesis were rejected

Limited of generalization is one of the most important constraints of the study because; it was conducted within a limited period, with limited resources, the tourism students of a single state university were considered as the population and the sample size is small (n= 18). So it can be predicated that the study is descriptive in this aspect. The research can be repeated on a larger sample in order to generalize the results of the study. Making researches by establishing correlations with different variables and by taking the students on recreation and gastronomy departments of tourism into consideration will enable us to make comparisons in Turkey. When the epistemological beliefs of tourism students are examined according to tourism vocational lessons or separate lessons such as foreign language and accounting, more detailed results can be obtained and students' perspective on knowledge can be evaluated depending on the quality of the information. In addition, evaluating the epistemological beliefs of the

academicians while evaluating the epistemological beliefs of the students will contribute to mutual harmony in developing more effective and efficient learning strategies.

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