THE OPINIONS OF GEOGRAPHY TEACHER CANDIDATES AND GEOGRAPHERS TOWARDS ONLINE LEARNING

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Abstract

The methods used in the teaching of geography, affect student attitudes and achievement. Geographic education is a necessary part of a complete education. Technology is developing rapidly, therefore teaching of geography must be supported by technology. This is becoming more apparent as geo-spatial technologies including remote sensing and mapping tools have become critical to our economical success and governance in areas such as natural resource management, international commerce, transportation, risk management and national defense and security. The purpose of this research is to examine the perspectives of geography teacher candidates and geographers related to online learning. Qualitative and quantitative research methods were used together. For qualitative research interviews was carried out with 10 higher geography education students. İnterviews were coded in qualitative research. In the sample of study, 435 people were included. Data collection tool was a "Student Attitudes Towards E-learning" scale which developed by Al Musawi in 2013. Required permissions for the scale were obtained from the researcher. The scale were revised before used in the study. Quantitative and qualitative research methods were used. SPSS was used in the data analysis. For qualitative research interviews was carried out with 10 geography students. İnterviews were coded in qualitative research. The results obtained from the analysis reported that opinions of the students from Education Faculty and Faculty of Sciences and Literature to online learning   have positive attitude.

Keywords: Geographic education, online learning, student attitude.

INTRODUCTION

Geographic education is a necessary part of a complete education. This is becoming more apparent as geo-spatial technologies including remote sensing and mapping tools have become critical to our economic success and governance in areas such as natural resource management, international commerce, transportation, risk management and national defense and security (www.ncge.org).

Alarmingly though, the PISA found that the frequency of ICT use at home is not proportional by use at school, and in most OECD countries, more than 80% of 15 year-olds use computers frequently yet a majority do not use them much in school (OECD, 2010). The environment for e-learning can be an online addition to a face-to-face course, a partially online hybrid course, or totally online. Online learning can employ low tech means of engaging students with simple web pages to high tech augmented reality applications and virtual environments like Second Life (Dittmer, 2010; Ritter, 2012).

In order to successfully deliver an online course, it requires a strong pedagogical strategy. This may require much more thought and reflection than is perhaps given to a traditional lecture series (Weller, 2002). With respect to undergraduate education, researchers support the use of GIS technology to help students develop geography skills (Drennon, 2005; NRC, 2006; Golledge et al., 2008), practice geography-based decision-making (Rutherford & Lloyd, 2001) and engage in real-world problem-solving (Summerby-Murray, 2001; Songer, 2010). Collaborative learning strategies have often been used as an effective strategy for online, group-based learning environments. Many studies have demonstrated the effectiveness of collaborative learning and collaborative communication on the online environment because of its flexibility, chances for better interactions, and technological support for reflective thinking and collaborative work (Ravits, 1997; Collins & Collins, 1996; Ward & Tissen, 1997). A lot of research has shown that, taken collectively, the geographers involved tend Innovation

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and change in teaching and learning in higher education is associated with the use of computers and elearning in teaching and learning, to embrace innovation and change (Donert, 2007). Instructors need to move beyond the simple caching of web sites and invest time in designing thoughtful, user-friendly exercises that involve students in the learning process. The best opportunities for achieving this goal lies with the use of current weather, climate, river, plate tectonic, and sunrise/sunset data available on the web (Francek, 1999). In the process of working in an online group learning environment (Brown & Palinscar, 1989 transmitting by Joung, 2003), learners are encouraged to develop personal meaning via the flexible chances for interaction and fostered group-work. These two elements also allow students opportunities for learner reflection and support learner interaction due to the technological support.

METHODOLOGY

Study Design
Qualitative and quantitative research methods were used together. The purpose of this research is examine the perspectives of geography teacher candidates and geographers related to online learning.

Population and Sample
Randomized sampling type was used as sample groups in Turkey. Scale was applied geography faculty of education department students and to the students of science and literature faculty. Partıcıpants are the students who have taken the online lessons which Turkish and Ataturk's Principles and History of Turkish Revolution.

Participants
435 people (students) were included in the sample of study. Scale questions were asked to the students via the ınternet. Due to complete unfilled questionnaires, a total of 380 of geography teacher candidates and geographers opinions has taken into consideration.

Data Collection Tool
Data collection tool is a "Student Attitudes Towards E-learning" scale which was developed by Al Musawi in 2013. Required permissions for the usage of scale were obtained from the researcher. Scale were revised before used. Originally, the reliability of the scale was found 0,84 by Al-Musawi whereas it was found 0,78 for this research. Quantitative research and data analysis methods (triangulation) were used together.

Data Analysis
Quantitative research and qualitative data analysis methods (triangulation) were used together to determine the perspectives of geography teacher candidates and geographers related to online learning.

In quantitative data analysis were SPSS packet program for Windows. For qualitative research interviews was carried out with 10 geography students. İnterviews were coded in qualitative research.
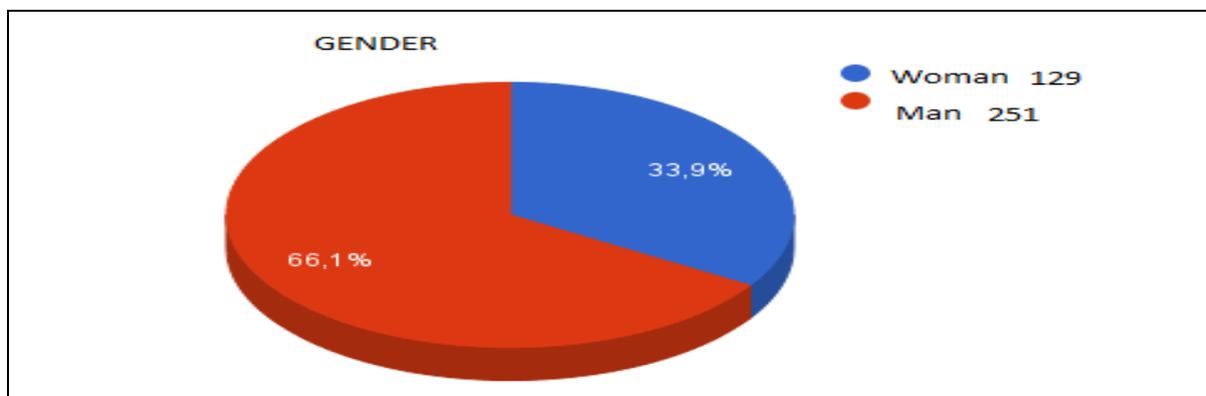

Figure 1: Gender of Participants

33.9% (129) of participants are female while 66.1% (251) of them are male who participated to determine the opinions related to online learning in the study.
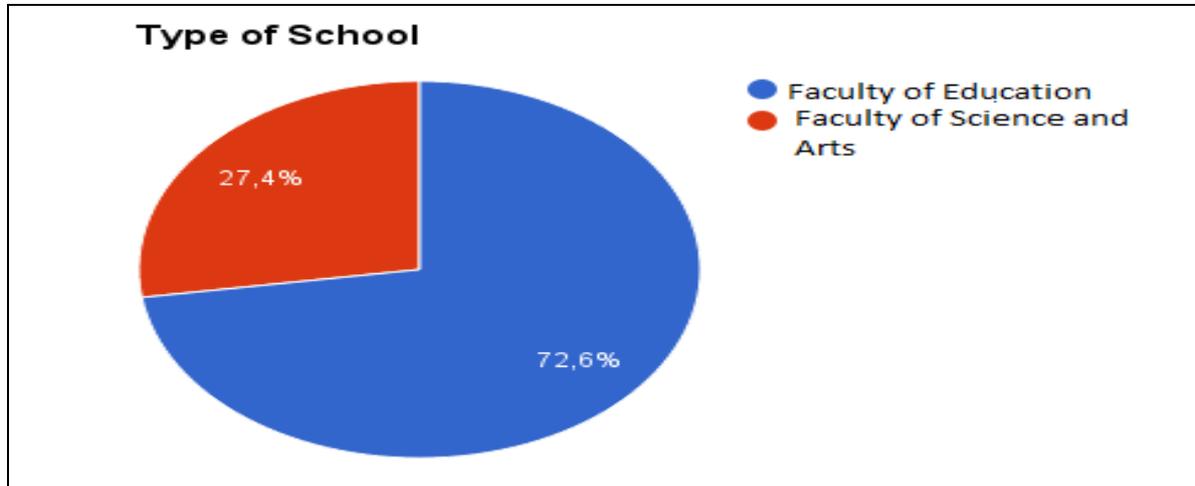

Figure 2: The Distribution of Participants According to Type of School

Distribution of participants who have participated in the study consists of Education Faculty and Faculty of Arts and Sciences. The number of participants from Education Faculty was 276 (72.6%) whereas the participants from Faculty of Sciences and literature was 104 (27.4%).

FINDINGS

Findings of the Qualitative Analysis

Table 1: Frequency of Use Internet Resources For Online Learning

	Very often	Often	Sometimes	Never
Frequency of use web sites, e-mail, facebook, twitter, blog, etc.	55,4%	22,3%	19,3%	3%
Frequency of use web sites, e-mail, facebook, twitter, blog etc. for online learning	53,2%	21,2%	23,6%	2%

According to the frequency of use internet based social media percentage value is %55,4 commonly used ones then the favorites often usage has been following %22,3. The percentage of sometimesusers %19,3, never is %3.   According to this results the majority of preservice geography students are using web based communication. The percentage of using these resources for learning online value is closer (53,2). The findings of this research demonstrate that most geography students are using the internet for online learning. Rutherford's (2010) research has found that university students use frequently social media. Research has indicated that there is a positive relationship between academic uses of technology and the occurrences of active and collaborative learning, and the frequency of student-faculty interactions (Laird & Kuh, 2005; Rutherford, 2010).

Table 2: Frequency Qualitative İnterviews

Positive Opinion(N10)	f	%	Negative Opinion(N10)	f	%
sharing and access course information useful and low cost	8	80	problems arise in social communication skills	3	30
to continue the positive contribution of the lessons outside the classroom	10	100	the high cost	2	20
shared information is many and varied	9	90	working on the computer for a long time as a result of mental and physical ı fatigue	7	70
saves time and place	8	80			
develop a sense of cooperation	7	70			

Qualitative interviews were made for interviews with 10 students. This students are science and literature faculty students(5) and faculty of education students (5).

According to table 8 students were mentioned that "sharing and access course information useful and low cost". 10 students also expressed a positive opinion about continuing of their work of the outside class. 9 students mention the sharing many and varied which of positive results. Number of students who talking about acquisition   the place and time are 8 as well as 7 students emphasized the positive side of the collaboration. Their negative consideration about online learning are social communication skills problems, high costs, as a result of mental and physical   fatigue. To the results obtained from qualitative interview the students mention that also negative opinion, their ratio despite the low but ıt is important for the overall research.
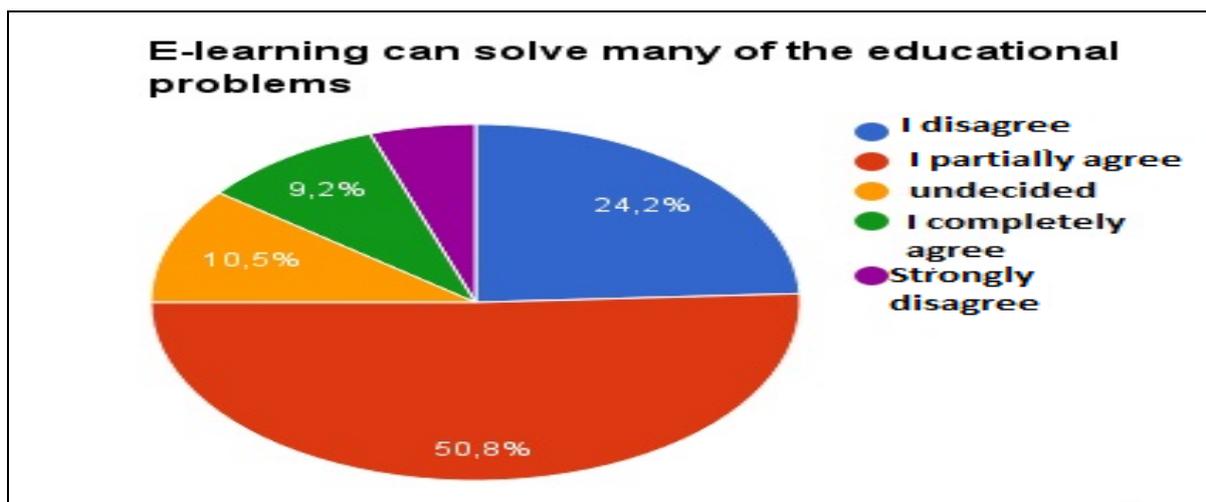

Figure 3: Distribution of Item 1: E-learning Can Solve Many Educational Problems

According to the answers to e-learning can solve many of the educational problems as the average percentage of students who participated in this opinion partially agree 50,8 % .

In the participant that disagree have stated and this area constitutes 24,2% of students. In this case, they don't think completely online learning to solve a problem of education. A group of students reported that actually negative opinion. We can describe opinions of the participants stating that online learning they think would be incomplete in the geography teaching.
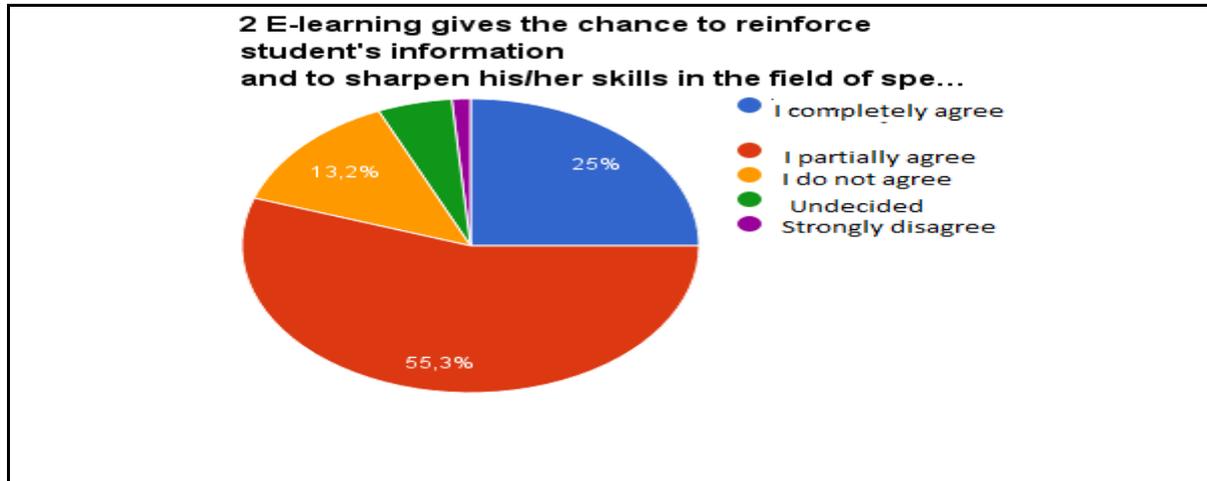

Figure 4: Distribution of Item 2: E-learning Gives the Chance to Reinforce Student's Information and to His/Her Skills in the Field of Specialization.

A large number of student are involved in this view. They partially agree with the second item. Most of the students reported at positive idea. E-learning gives the chance to reinforce student's information and to his/her skills in the field of specialization.
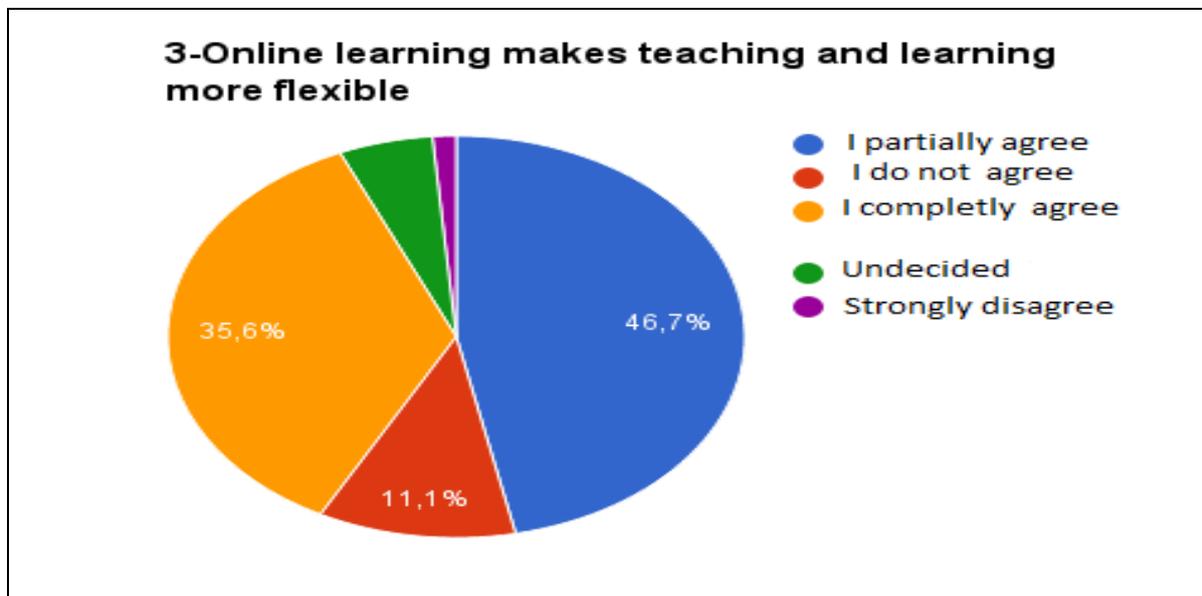

Figure 5: Distribution of Item 3: Online Learning Makes Teaching and Learning More Flexible

On the subject of "online learning makes teaching and learning more flexible" percentage of students about this item more positive opinion total 82.3 %. The number of people who don't agree observed low (11,1). It is seen that the number of students positive opinion more than another. According to the results of the interview in this topic 7 student online learning is mentioned more comfortable.
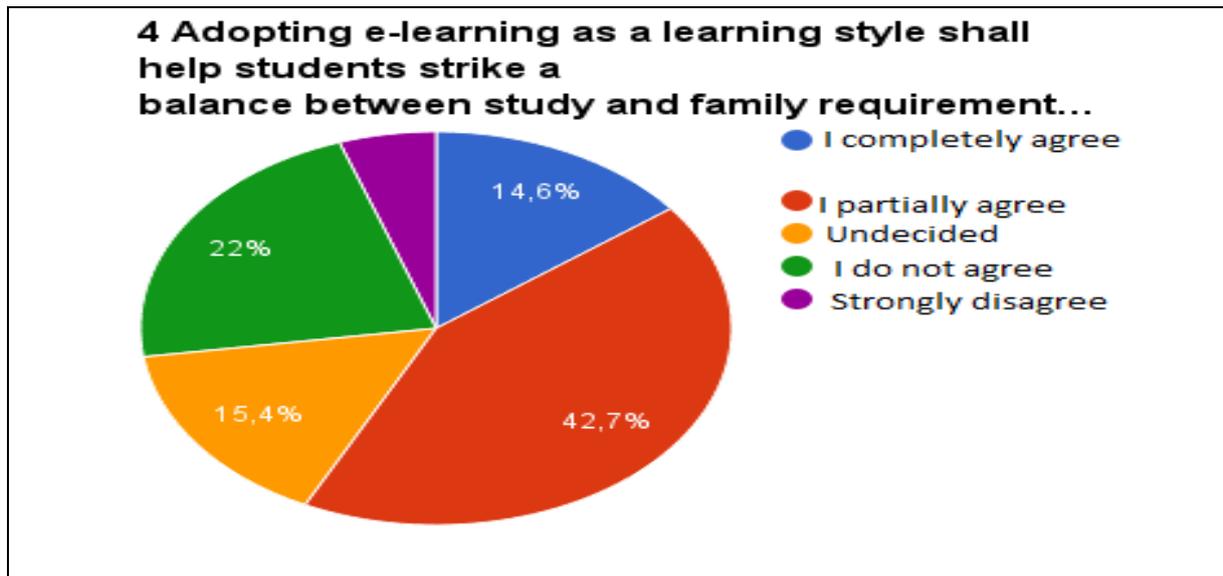
Figure 6: Distribution of Item 4: Adopting E-learning As a Learning Style Shall Help Students Strike A Balance Between Study and Family Requirements

Opinion of student preservice about subject "adopting e-learning as a learning style shall help students strike a balance between study and family requirements" more positive. Percentage of students participating in partially agree is 42,7 % This constitutes almost half of the total number of students. The percentage of those disagree is %22. This result is quiet siginificant in terms of geography students for online learning perspective.
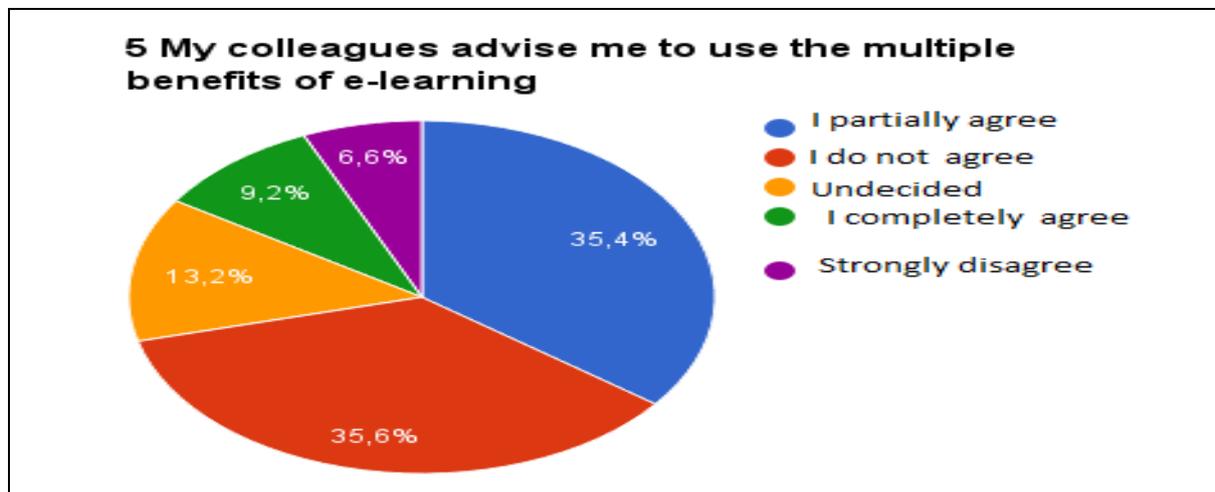

Figure 7: Distribution of Item 5: My Colleagues Advise Me to Use the Multiple Benefits of E-learning

The answer given to the item 5 "my colleagues advise me to use the multiple benefits of e-learning" geography students participated this part of the topic, the partially agree rate is 35,4% and don't agree with rate is 35,6 %. Both of these benefits are considered to contribute to the level of student engagement, which has been determined to significantly impact student success (Kuh, 2001), Rutherford's (2010). Smith and Greene (2013) research about pre-service teachers use e-learning technologies to enhance their learning. Participants judged the e-learning project as a very positive aspect of their teacher training. The students' satisfaction towards the Web-Based Instruction using collaborative learning in group investigation technique to enhance analytical thinking of grade X students equal 3.85 from 5.00, which was at "high" level, shown that it could attracted the well-attention from the students. It provided learning tools available for active learning at all times. These were

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discussion forum, source of knowledge, collaborative learning space, and online analytical thinking test. (Zhu, 2012; Sranamkam, 2015). In Europe many higher education institutions have planned to respond to these new student demands, specifically by providing courses and qualifications that suit the rapidly changing online opportunities (European Commission, 2005).
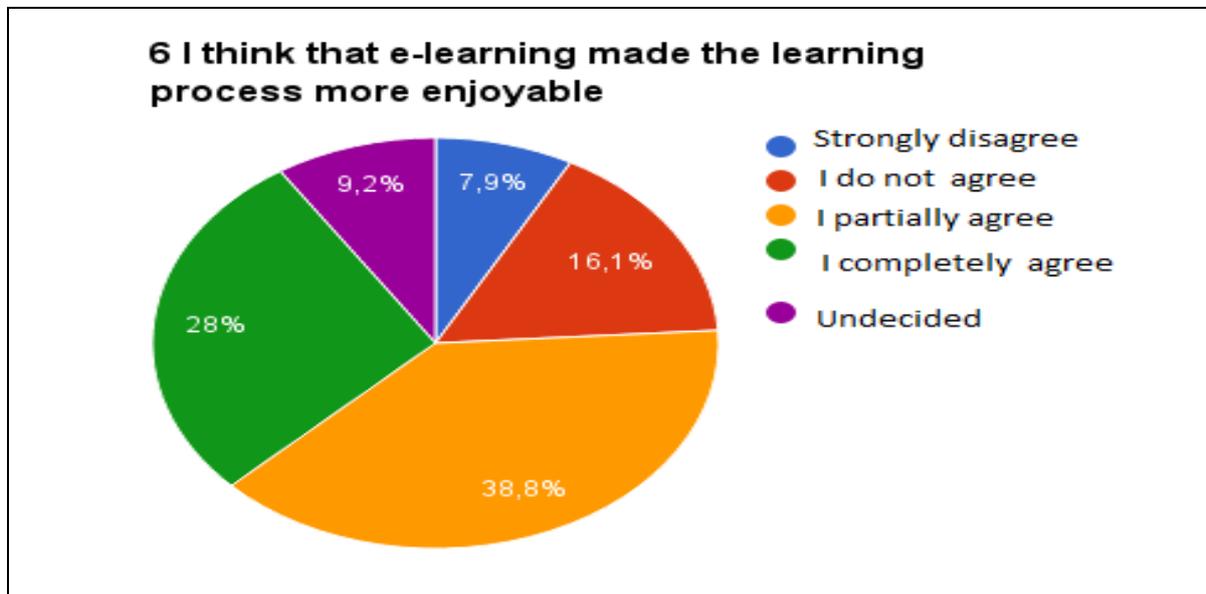

Figure 8: Distribution of Item 6: I Think That E-learning Made the Learning Process More Enjoyable

According to the Figure 8, 38.8 %of participants have partially agreed that e-learning makes the learning process more enjoyable while %28 of them completely agreed, 16.1% of them do not agreed, and 9.2% of them are undecided.
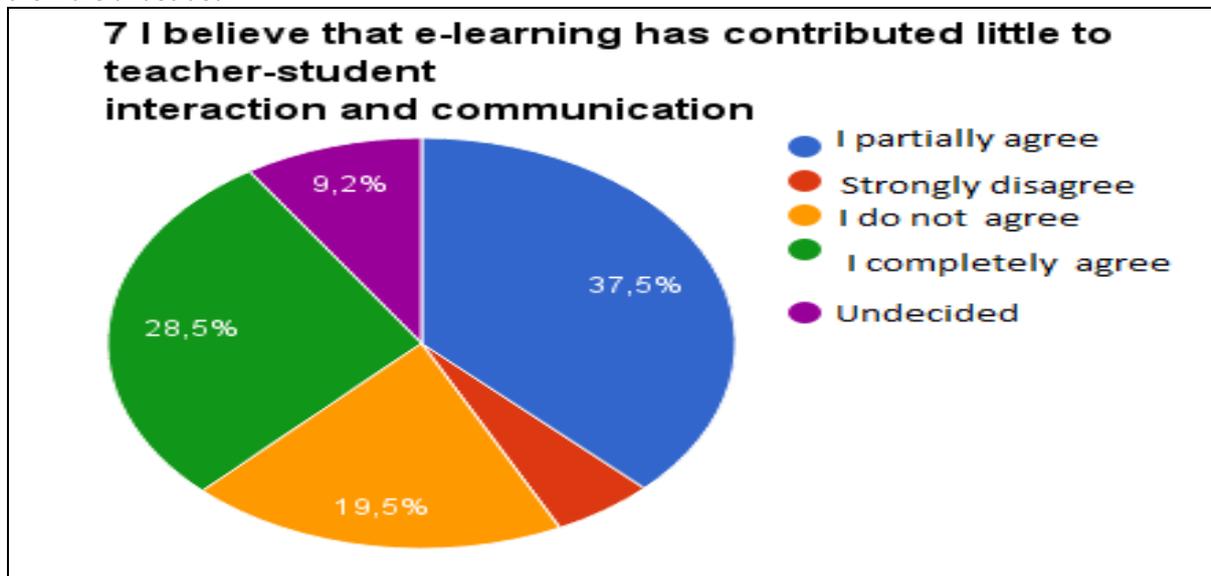

Figure 9: Distribution of Item 7: I Believe That E-learning Has Contributed Little to Teacher-Student Interaction and Communication

According to the Figure 9, 37.5% of participants have partially agreed that e-learning has contributed little to teacher-student interaction and communication while 28.5 % of them completely agreed, 19.5 %of them do not agreed, and 9.2% of them are undecided. To the qualitative interviews 9 participants referred the «shared information is many and varied».
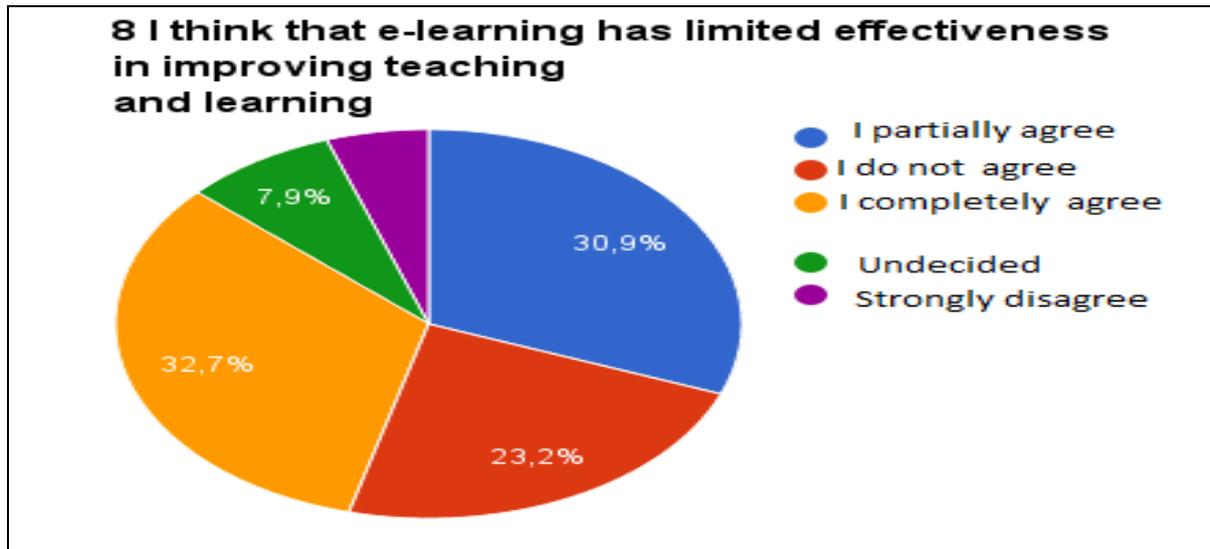
Figure 10: Distribution of Item 8: I Think That E-learning Has Limited Effectiveness in Improving Teaching and Learning

According to the Figure 10, 32.7% of participants have completely agreed that e-learning has limited effectiveness in improving teaching and learning while 30.9% of them partially agreed, 23.2 % of them do not agreed, and 7.9% of them are undecided. They thought, e-learning has limited effectiveness in ımproving teaching and learning.
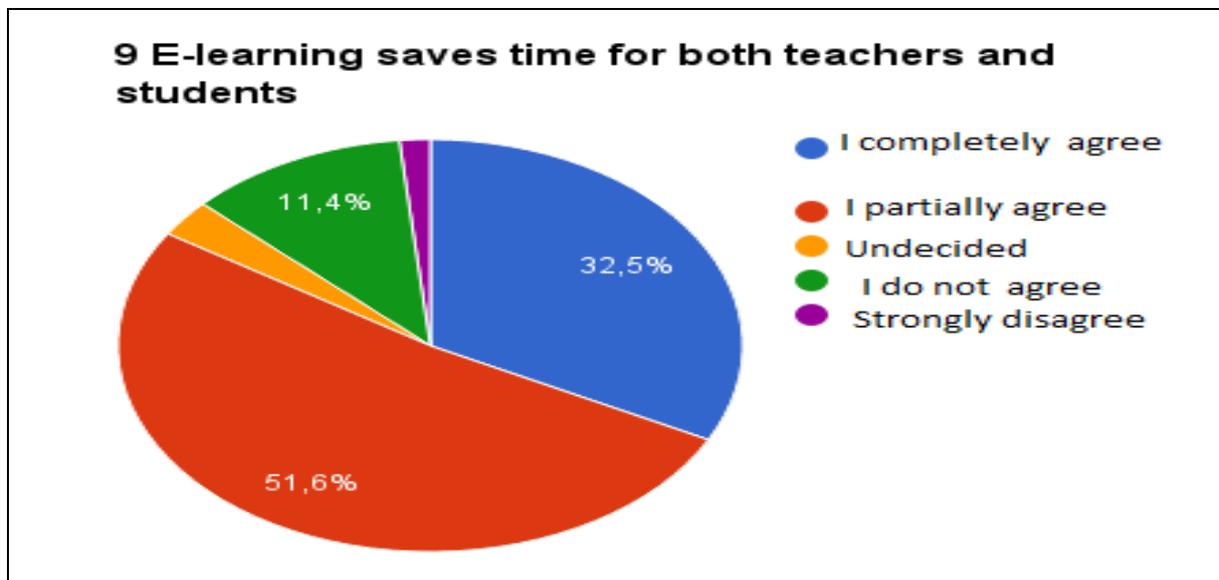

Figure 11: Distribution of Item 9: E-learning Saves Time For Both Teacher and Students

According to the Figure 11, 51.6% of participants have partially agreed that e-learning saves time for both teachers and students while 32.5 % of them completely agreed, 11.4% of them do not agreed**. :** E-learning Saves Time For Both Teacher and Students.
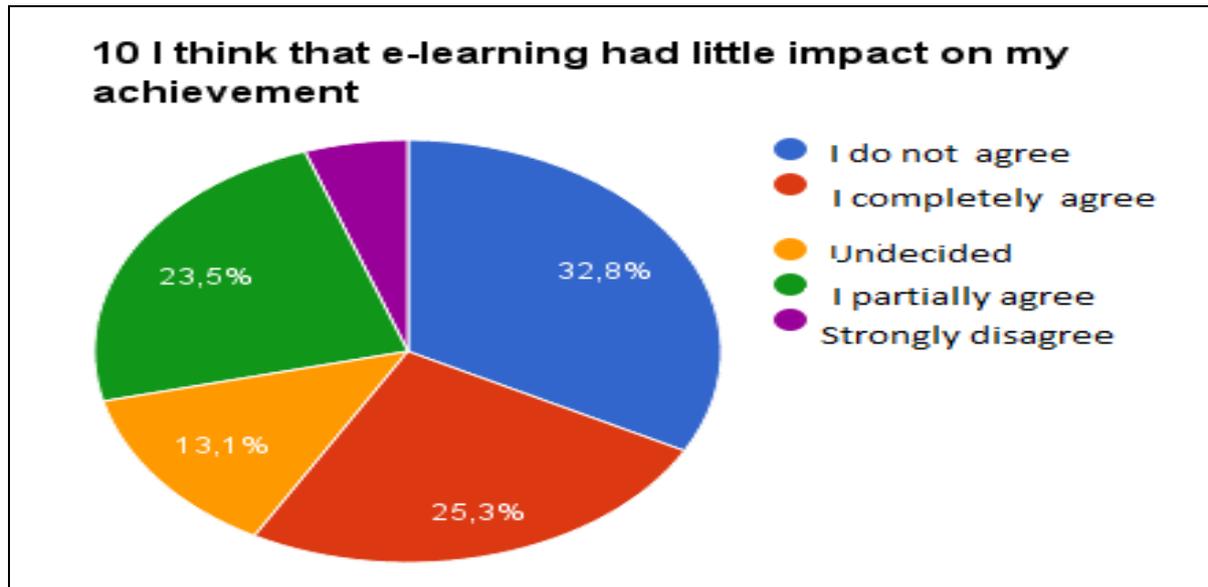
Figure 12: Distribution of Item 10: I Think That E-learning Had Little Impact On My Achievement

According to the Figure 12, 32.8% of participants have disagreed that e-learning had little impact on achievement while 25.3% of them completely agreed, 23.5% of them partially agreed, and 13.1 % of them are undecided.
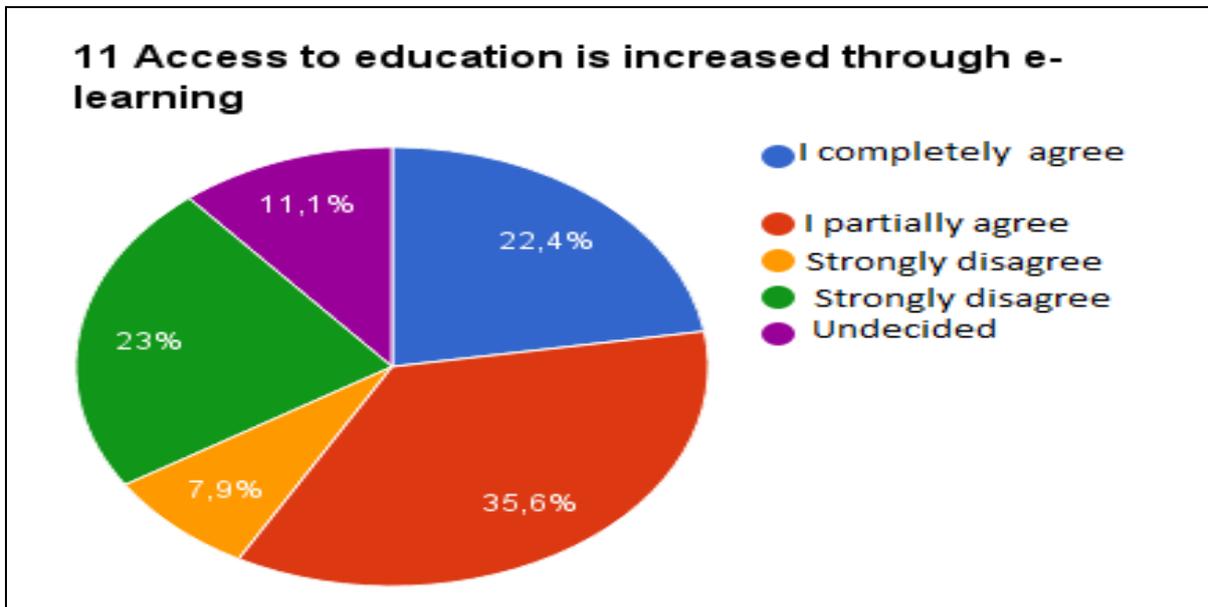

Figure 13: Distribution of Item 11: Access to Education is Increased Through E-learning

According to the Figure 13, 35.6% of participants have partially agreed that access to education is increased through e-learning while %23 of them strongly disagreed, 22.4% of them completely agreed, and 11.1% of them are undecided.
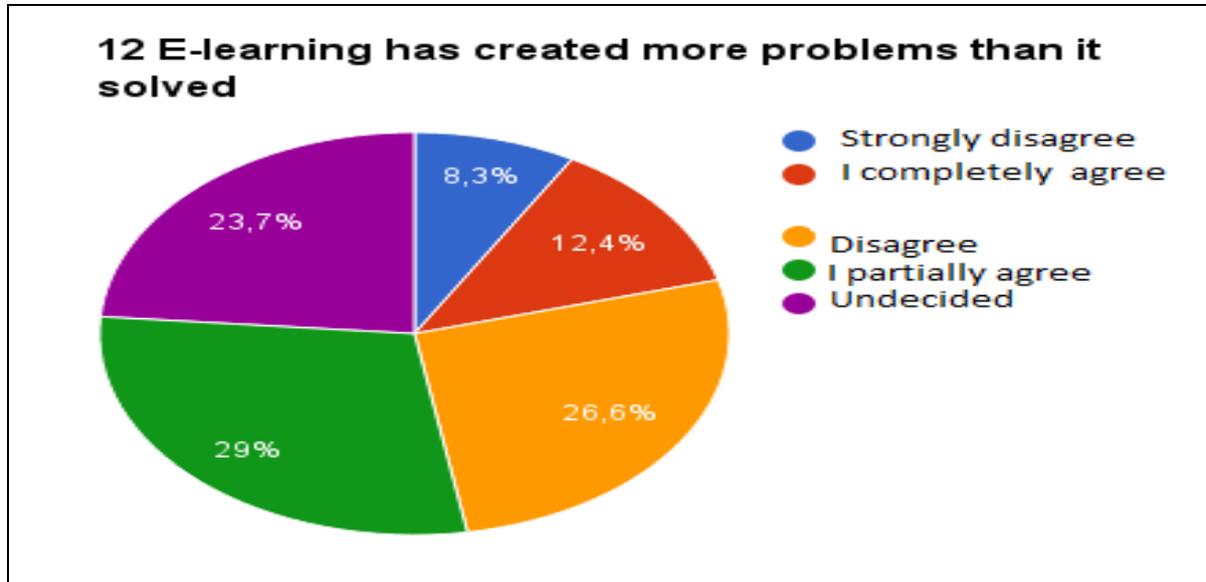
Figure 14: Distribution of Item 12: E-learning Has Created More Problems Than It Solved

According to the Figure 14, 29% of participants have partially agreed that e-learning has created more problems than it solved while 26.6% of them do not agreed. 12.4% of them completely agreed, and 23.7% of them are undecide

DISCUSSION AND RESULTS

According to the answers to e-learning can solve many of the educational problems as the average percentage of students who participated in this opinion partially agree 50,8 % . E-learning gives the chance to reinforce student's information and to his/her skills in the field of specialization they partially agree with the second item. Most of the students reported at positive idea. On the subject of "online learning makes teaching and learning more flexible" percentage of students about this item more positive opinion total 82.3 %. Percentage of students participating about subject "adopting e-learning as a learning style shall help students strike a balance between study and family requirements" are positive, in partially agree is 42,7 % . This constitutes almost half of the total number of students. The answer given to the item 5 "my colleagues advise me to use the multiple benefits of e-learning" geography students participated this part of the topic, the partially agree rate is 35,4% and don't agree with rate is 35,6 %. These questions students may have not fully perceive as a result come out clearly. 38.8 %of participants have partially agreed that e-learning makes the learning process more enjoyable while %28 of them completely agreed. 9, 37.5% of participants have partially agreed that e-learning has contributed little to teacher-student interaction and communication while 28.5 % of them completely agreed. Student that considers online learning reduce the student-teacher interaction. 32.7% of participants have completely agreed that e-learning has limited effectiveness in improving teaching and learning while 30.9% of them partially agreed. 51.6% of participants have partially agreed that e-learning saves time for both teachers and students while 32.5 % of them completely agreed. 32.8% of participants have disagreed that e-learning had little impact on achievement while 25.3% of them completely agreed, 23.5% of them partially agreed. 51.6% of participants have partially agreed that e-learning saves time for both teachers and students while 32.5 % of them completely agreed, 11.4% of them do not agreed. 32.8% of participants have disagreed that e-learning had little impact on their achievement while 25.3% of them completely agreed, 23.5% of them partially agreed for this item. 35.6% of participants have partially agreed that access to education is increased through e-learning while %23 of them strongly disagreed, 22.4% of them completely agreed, and 11.1% of them are undecided. 14, 29% of participants have partially agreed that e-learning has

created more problems than it solved while 26.6% of them do not agreed. 12.4% of them completely agreed, and 23.7% of them are undecided.

The results obtained from the analysis reported that opinions of the students from Education Faculty and Faculty of Sciences and Literature to online learning have positive attitude.

In contrast, opinions of the same students about items such as "has created more problems than it solved", "had little impact on my achievement" are generally disagreed. Rutherford's (2010) , Smith and Greene (2013) research about pre-service teachers use e-learning technologies. The result of all study is to enhance their learning participants judged the e-learning project as a very positive aspect of their teacher training.

According to results of qualitative interview coded the students' interviews have given a positive opinion in the following subjects;
-Sharing and access course information use and low cost
-To continue the positive contribution of the lessons outside the classroom
-Shared information is many and varied
-Saves time and place
-Develop a sense of cooperation

The students mention that also negative opinion, their ratio despite the low but ıt is important for the overall research . These are: Arising in social communication skills problems. They thought about high cost and mental and physical fatigue issues. Their views should be taken into consideration to increase the effectiveness of online learning environment.

Although readiness (availability) level of the students related to e-learning environments are high, these environments should be also supportive to constructivist approach. The geospatial technologies used in teaching geography from geographic thinking skills, thus e-learning has been already encouraged by that. E-learning has provided favorable conditions for teaching geography, however it is required that both teachers and these conditions should be pedagogically well-designed.

Laurillard (2002) recommends that we, as academics, build a body of knowledge on how we could make best use of technology in learning. Online learning is offering us the opportunity to evaluate critically our pedagogies and our role as educator. Computers offers opportunities to store images and motion images in a wide area for a geography lesson unlike other lessons (Teyfur, 2010).

In the process of developing the online practical careful consideration was given to the constructive alignment (Biggs, 1999) of the learning objectives, content, learning process and assessment tasks. teaching approach, in that the learning process is designed to help students develop their capacity for research and their ability to 'think like a researcher'. Further, the online practical highlights some key implications for learning design in scientific disciplines (Holbrook & Devonshire, 2005). As geospatial technologies become more accessible, it is imperative to do more research to understand not only how they can be used, but who should use them and how their use affects student learning. Songer (2010) states web-based co-operation in this context refers to communication and interaction among students or between student and the teacher on the web. Co-operation is thus something more than mere information acquisition. It can mean the use of e.g. e-mail, discussion forum (Newsnet News), chat, audio chat, video conferencing or desktop video conferencing (Houtsonen et al., 2004). The geospatial technologies used in teaching geography form geographic thinking skills, thus e-learning has been already encouraged by that. This situation may result in applicable geography teaching. But it should be noted the importance of field trip in geography teaching. Because field trip is the laboratory of geography science.

If online technologies in higher education are developed as supportive to lectures in formal environments, it would provide more flexible and equal education in teaching geography.

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