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YÖNLENDİRİLMİŞ TARTIŞMA KULLANILAN BLOG ORTAMLARINDA ÖĞRENCİLERİN DERS MEMNUNİYETİNİ ETKİLEYEN FAKTÖRLERİN İNCELENMESİ*

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ÖZ

Bu çalışmanın amacı, blog ortamında yönlendirilmiş tartışma kullanımını öğrencilerin ders memnuniyetlerini etkileyen faktörler açısından incelemektir. Örneklem olarak sınıflardan biri deney, diğeri kontrol olmak üzere iki grup belirlenmiştir. Deney grubu öğrencilerine blog ortamında yönlendirilmiş tartışma kullanılarak uygulama yapılmıştır. Araştırmada her iki gruptaki öğrencilerin ders kapsamında yer alan konularla ilgili hazırladıkları ders materyallerini ve raporlarını blog ortamında paylaşmaları istenmiştir. Deney grubunun eşzamansız (asen kron) yönlendirilmiş tartışmalara katılmaları zorunlu tutulmuş ve katılımlarının kalitesi hakkında araştırmacılar tarafından hızlı bir şekilde dönüt verilmiştir. Deney öncesinde ve sonrasında her bir faktör için oluşturulmuş anket dağıtılarak toplanan veriler çalışmanın veri kaynağını oluşturmuştur. Elde edilen bulgulara göre öğrencilerin blog ve akran değerlendirme inançlarına yönlendirilmiş tartışma etkisi anlamlı bulunmamıştır. Ayrıca, öğrenme algısı, topluluk hissi, işbirlikli öğrenme ve yönlendirilmiş tartışma değişkenlerinin ders memnuniyetini sırasıyla yordayan değişkenler olduğu tespit edilmiştir. Analizler sonucunda öğrencilerin ders memnuniyeti puanlarının blog, akran değerlendirme inancı ve çoklu ortam özelliklerini düzenleyebilme inancı değişkenine göre farklılaşmadığı; diğ er bir ifadeyle öğrencilerin ders memnuniyeti puanlarının, blog, akran değerlendirme ve çoklu ortam özelliklerini düzenleyebilme inancından etkilenmediği görülmüştür.

Anahtar Kelimeler: Ders memnuniyeti, yönlendirilmiş tartışma, blog ortamı, öğrenme algısı, topluluk hissi, işbirlikli öğrenme

USE OF THREADED DISCUSSION IN BLOG ENVIRONMENT WITH RESPECT TO FACTORS AFFECTING STUDENTS' COURSE SATISFACTION

ABSTRACT

The aim of this study is to examine the use of threaded discussions in the blog environment in terms of the factors affecting student course satisfaction. Experimental and control groups were selected, and the students in the experimental group participated in threaded discussions in the blog environment. In the study, students in both groups were asked to share, in the blog environment, their course materials and reports about the subjects included in the course. The experimental group was asked to participate in asynchronous threaded discussions, and feedback about the quality of their participation was rapidly provided by the researchers. The data, collected before and after the experiment, were distributed online. According to the findings, the effect of threaded discussions on students' beliefs about blogs and peer review was not significant, and perceived learning, sense of community, collaborative learning, and threaded discussion were the variables that predicted course satisfaction. The students' satisfaction scores were not affected by their beliefs about blogs, peer review, and their ability to organize multimedia features.

Keywords: Course satisfaction, threaded discussion, blog environment, perceived learning, sense of community, collaborative learning

* Bu çalışma birinci yazarın yüksek lisans tezinden oluşturulmuştur.

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1. INTRODUCTION

As a Web 2.0 tool, blogs have changed our perception of Internet use from simply being users of information to acting more as contributors to knowledge. Blogs invite users to interact, be creative, and share in a virtual environment by providing the opportunity to comment on others' posts or create information (Wu, 2006). The benefits of using blogging in education have been indicated by many researchers (e.g., Kubincová, Homola, & Bejdová, 2013; Popescu, 2010; Top, 2012). In Top's (2012) study of blogs, he pointed out that blogs have educational benefits such as allowing users to make comments and express their ideas with individuals or groups, creating opportunities for interaction, developing the ability to reflect, developing problem-solving skills, and enabling collaboration. Top (2012) also stated that blogs can be used to share news and information about the course, share ideas and experiences, collect learning resources, improve students' research and writing skills in their individual assignments, and enable students to use social skills and collaboration through discussions on group assignments and projects.

Blogs, which are one of the more popular Web 2.0 tools utilized in educational environments, have been used successfully for individual and collaborative learning (Popescu, 2016). However, Kubincová et al. (2013) stated that it is not sufficient only to publish a few blog posts; instead, they claimed that monitoring classmates' blogs and actively participating in discussions were vital to achieving the desired results. Similarly, Top, Yükseltürk, and İnan (2010) found that students often use blogs for sharing information rather than for discussion or reflection.

The threaded discussion is defined as the formation of a series of threaded messages in which participants participate in messaging at different times by signing in at different times (Arend, 2009). Online threaded discussions develop critical thinking skills and collaboration by encouraging a broad range of learner-to-learner interaction, dialogue, and discussion (Brooks & Jeong, 2006; Maurino, 2007). Threaded discussions also allow individuals to reflect more carefully in order to analyze their thoughts and contribute to their peers' ideas before they express themselves in their own posts. These discussions can develop learners' self-regulation processes and increase their meta-cognitive awareness when appropriate strategies are used (Maurino, 2007). In asynchronous threaded discussions, some problems may arise, such as the amount of time this type of communication requires, the emergence of dominant characters, the prominence of certain ideas, and the distortion of fluency among messages (Brooks & Jeong, 2006).

MacBride and Luehmann (2008) have argued that the benefits of blogs largely depend on how the teacher chooses to configure and use the blog in class activities. Churchill (2009) emphasized that students can evaluate the work of their peers through blogs. Peer evaluation is defined as the evaluation of learning outcomes and products, the quality of the products, and the efficacy of one's peers in a similar situation by considering the level and amount of learning. Peer assessment can transform students from passive to active learners (Topping, 1998) and develop teamwork skills (Topping, 1998), creative thinking (Liu, 2015), critical thinking (Topping, 1998), and reflective thinking skills (Topping, 1998). In their study, Ubaque Casallas and Pinilla Castellanos (2016) stated that peer review enables self-regulation, the development of social, cognitive, and meta-cognitive skills, and enables individuals to see the level of their own learning. These researchers also found that peer evaluation has a positive effect on students' attitudes and behaviors. There are further studies explaining the positive relationship between peer evaluation and course satisfaction (Nguyen, 2016; Paswan & Gollakota, 2004). For example, Nguyen (2016) examined factors affecting student satisfaction in blended courses and demonstrated that student peer evaluations could become good predictors of student satisfaction.

Top (2012) stated that the use of blogs in the education process improved learners' sense of community, and that sense of community should be taken into consideration in online course design; he describes the importance of sense of community, the feelings of belonging and similarity, and creating emotional bonds. The sense of community provided by online lessons helps students who feel self-isolated to prevent these feelings of isolation (Kuruçay, 2015). Thanks to the sense of community, asocial students can be supported (Rovai & Jordan, 2004), and with a sense of community, the students' sense of responsibility and responsibility towards others is formed. Individuals feel the need to meet the needs of others in achieving their learning goals (Rovai, 2002). In addition, this concept provides a sense of harmony, friendship, and acceptance of community membership among learners (Rovai, 2000). Studies explaining the relationship between sense of community and course satisfaction can be found in the literature (Barnard, Paton, & Rose, 2007; Drouin, 2008; Hemphill, 2011; Top, 2012; Top et al., 2010). For example, Top (2012) investigated pre-service teachers' course satisfaction and perceived learning in a blended learning environment. He found that students' course satisfaction and perceived learning correlated with their sense of community. However, Hemphill (2011) examined the correlation between constructivist learning, sense of community, and learner satisfaction in an asynchronous learning environment and could not find any statistically significant relationship between sense of community and learner satisfaction.

The use of blogs in the teaching process, together with the opportunity to share information with others, develops individual knowledge and increases individual learning performance in a collaborative learning environment (Top,

2012). Collaborative learning is a learning strategy that encourages learners to be interdependent, where they take responsibility for their own and others' learning process. Collaborative learning also includes teamwork and project management. Group project management provides online communication skills and experience with projects, a learning community, and a sense of belonging (Haythornthwaite, 2006). Collaborative learning generally has positive effects, such as improving the permanence of acquired knowledge, increasing participation in the learning process, and gaining high-level thinking skills. Students with different performance levels can work on different tasks to reduce their cognitive burden (Lee & Tsai, 2011).

Neo and Neo (2010) reported that students who design multimedia products have high motivation and participate actively in collaborative learning environments where blogs are also used. Multimedia learning products are defined as educational products such as videos, slides, games, simulations, and animations that are created using text, sound, and various image formats together with the appropriate pedagogical strategies to give a particular student community an effective and pleasant learning experience. Neo, Neo, and Tan (2012) reported that students who design multimedia products in a hybrid educational environment using authentic learning methods have high levels of participation and understanding. In parallel with these findings, Neo and Neo (2009) stated that students who designed multimedia products in an interactive multimedia course developed positive attitudes and perceptions towards developing multimedia products.

Alavi (1994) defined perceived learning as the changes in perception of knowledge levels and skills before and after learners' learning experiences. Perception of learning is also described as individuals' perceptions about their learning within the course (Kuruçay, 2015). Perceived learning is related to many variables in the online learning environment. For example, the relationship between perceived learning and achievement can be explained by the types of exams used to measure achievement (Horzum, Kaymak, & Güngören, 2015). Lewis (2011) stated that exams and assessments are the best components for explaining students' perceptions of learning in online environments. However, there are also critical evaluations of the use of learning perception to measure students' cognitive learning because students may not have the ability to make definitive judgments on how much they have learned (Rovai, Wighting, Baker, & Grooms, 2009).

Student satisfaction is a measurable result in online courses. Satisfaction is an affective learning output that links the level of response and the learners' learning motivation to the quality of learning and reaction to values (So & Brush, 2008). It is also described as students' satisfaction with their own learning experience and with the quality of teaching (Allen & Seaman, 2003). Student satisfaction in an online learning environment can be defined as how students perceive the course design, learning activities, instructor performance, and overall quality of the course (Gunawardena, Linder-VanBerschot, LaPointe, & Rao, 2010). Satisfaction is considered to be a strong determinant of an important student attitude and the effectiveness of online courses (Allen & Seaman, 2003). Sweeney and Ingram (2001) describe student satisfaction as a sense of pleasure and achievement in the learning environment.

In the literature, it is seen that the various factors affecting students' online satisfaction have been examined by researchers. For example, in many studies, a significant relationship was found between peer assessment and course satisfaction in an online learning environment (Kuruçay, 2015; Nguyen, 2016). Similarly, a strong positive relationship between collaborative learning and perceptions of satisfaction has been demonstrated (Alavi, 1994; So & Brush, 2008; Zhu, 2012). In many studies, discussion (Maurino, 2007) or threaded discussion (Sher, 2009; Zhu, 2012) is stated as a factor that positively affects satisfaction with online courses. There are many studies indicating that course satisfaction is related to sense of community (Drouin, 2008; Top et al., 2010). There are also studies emphasizing that student satisfaction with a lesson is strongly related to their perceived learning (Fredericksen, Pickett, Shea, Pelz, & Swan, 2000; Lo, 2010). Further studies show that satisfaction is high among pre-service teachers who share their teaching materials on blogs and receive feedback (Neo & Neo, 2010; Neo et al., 2012). Studies also emphasize that blog features, such as functionality, ease of use, and flexibility, increase student satisfaction (Popescu, 2016; Shih, 2012; Top et al., 2010). Although there are studies examining student satisfaction with different combinations of the variables discussed in this paragraph, there is no study in the literature in which all of the variables are used together. The current study will contribute to the research literature by examining all of these factors together.

Appropriate methods and techniques should be used to reveal the potential of blogs in educational environments (Kubincová et al., 2013; Top et al., 2010). Online threaded discussions that allow the exchange of ideas can help students learn deeply and more reflectively (Arend, 2009). When the studies in the literature are examined, it can be seen that there are only a few studies examining threaded discussions in online education environments (Brooks & Jeong, 2006; Maurino, 2007). In the current study, student satisfaction was examined from various perspectives in the educational process, which took place in a threaded discussion in a blog environment. First of all, it was examined whether there is a significant change in students' beliefs about blogging and peer evaluation. Afterwards, the study attempts to determine the extent to which the students' beliefs about collaborative learning, sense of

community, learning perceptions, threaded discussion, blogs, peer evaluation, and their ability to organize multimedia features are affected by the use of threaded discussions in the blog environment.

2. METHODS

In this study, semi-experimental models frequently utilized in social sciences are used, such as the unpaired control group design (Karasar, 2014). In terms of the equality of the groups, two classes were chosen to be taught using the same curriculum, and the academic knowledge levels of these two classes were equivalent. In this study, pre- and post-experiment questionnaires were given to both groups. The difference between the pre-test and post-test scores was compared using in-group comparisons.

The sample of the study consists of 72 third-year students (44 in the experimental group and 28 in the control group) taking a course called Multimedia Design and Production in the Computer and Instructional Technology in Education department in two different public universities. The activities (evaluating student materials, analyzing student comments, answering student questions, making announcements about the course, evaluating students' critiques and posts, establishing the necessary online communication with students) in both universities were carried out under the supervision of the researchers. All students in the classes were added to the study.

2.1. Data Collection Tools

The data were collected with a questionnaire prepared to determine the factors affecting the course satisfaction of each group. Three experts were consulted for the scope validity of the questionnaire, and the deficiencies were resolved in line with their recommendations. The fact that the activities in both groups were led under the supervision of a specialist was thought to increase the reliability of the study. Attempts to ensure validity and reliability have been made by completing the necessary evaluations of the survey questions and applying the evaluations after benefiting from expert opinions.

Seven different scales were used in this study. The online questionnaire was given to the students through an e-mail invitation. A reminder e-mail was sent to students who did not complete the online questionnaire after they were first contacted. Scales to measure the students' beliefs about blogging and peer evaluation were administered before the experiment began. The questionnaire including all seven scales was given after the experiment.

The benefits of instructional blogging scale, developed by Brescia and Miller (2006) to measure students' beliefs about blogging, was applied before and after the experimental procedure as a pre-test and post-test. The scale of benefits of using instructional blogs was also applied as a pre-test and post-test. This scale, adapted by Top et al. (2010), consists of 16 items on a 5-point Likert-type scale. The reliability of the adapted scale was determined to be high, at 0.78. Similarly, the internal consistency coefficient for this study was computed as 0.89.

The peer evaluation scale, developed by Uysal (2008) and based on a scale named "What are your thoughts about self- and peer evaluation?" (Yuen, 1998), was applied as a pre-test and post-test to measure students' beliefs about peer review. The scale consisted of 13 items on a 5-point Likert-type scale. The reliability of the original scale was 0.61. Similarly, the internal consistency coefficient for this scale was computed as 0.88.

The sense of community scale, used to measure student perceptions of their community, was adapted by Öztürk (2009) from the classroom community scale (developed by Rovai [2002]). The scale consists of 13 items on a 5-point Likert-type scale and was applied as a post-test. Öztürk (2009) reported the internal consistency coefficient of the scale as 0.85. In the current study, the internal consistency coefficient of the scale was found to be 0.72.

In order to measure the students' perceptions of learning, the perceived learning scale was applied after the experimental process. The perceived learning scale, originally developed by Rovai et al. (2009), was adapted by Top et al. (2010). The scale consists of 9 items on a 5-point Likert-type scale and was applied as a post-test. Top et al. (2010) reported the internal consistency coefficient of the scale as 0.81. In this study, the internal consistency coefficient of the scale was found to be 0.82.

The collaborative learning scale, developed by So and Brush (2008) and adapted by Top (2012), was applied to measure students' level of collaboration and overall satisfaction with collaborative learning. The scale consists of 8 items on a 5-point Likert-type scale and was applied as a post-test. Top (2012) reported the internal consistency coefficient of the scale as 0.79. In the current study, the internal consistency coefficient of the scale was found to be 0.87.

The course satisfaction scale, developed by Delialioglu and Yildirim (2007) and adapted by Top et al. (2010), was used to measure the students' satisfaction with the blended learning taking place in their classrooms. The scale consists of 3 items on a 5-point Likert-type scale and was applied as a post-test. Top et al. (2010) reported the internal consistency coefficient of the scale as 0.84. In the present study, the internal consistency coefficient of the scale was found to be 0.95.

The ability to organize multimedia materials scale was created by combining the visual design features and the dimensions of multimedia characteristics of the educational software evaluation scale (Ateş, 2010). This scale was adapted to reveal students' beliefs about their ability to organize multimedia materials. The scale consists of 7 items on a 5-point Likert-type scale and was applied as a post-test. The reliability of the scale was calculated as 0.81 in Ateş (2010). In the current study, the internal consistency coefficient of the scale was found to be 0.70.

2.2. Intervention

In order to reach the objectives of the multimedia design and production course, guidelines were prepared for the experimental and control groups for presenting the same content in accordance with the determined methods and techniques. The guidelines contained the requirements and evaluation criteria for the materials that will be developed by the students. The conformity of the guidelines was ensured by taking the opinions of the participating faculty members, researchers, and other faculty members.

Five different instructional materials (multimedia products) were developed by the students in both classes, including podcasts, videocasts, games, tutorials, and portfolios. For this purpose, groups of 3 students were formed in both the control and experimental class. The group members were determined by taking the preferences of the students into consideration. The intervention took one semester.

For the materials developed by the students, students were asked to comply with the principles of multimedia design and production (Clark & Mayer, 2011). They were also asked to prepare a report in accordance with the instructional design model of Gagné (1985).

In line with the guidelines, the materials developed by the students were followed up on regularly. It was planned for the groups to prepare the materials in two stages. The students were asked to share their course materials and reports in the blog environment in both experimental and control groups.

The threaded discussion used in the study is defined as a series of threaded messages in which participants participate in messaging at different times by logging on at different times. Each student was required to evaluate and discuss other groups' shared materials in the group blog posts in accordance with the determined frameworks. The students had to use the materials preparation guidelines provided by the instructors of the course as a basis for their evaluation frameworks. Additionally, groups were required to respond to comments made by classmates on their own shared materials on their own blog posts. In order to ensure that the students and groups engaged in thoughtful and critical commentary according to the parameters of the assignments, their comments and responses to others' comments were graded by the researchers and published separately online to let all students see them.

The experimental group students were asked to:

- share the materials and reports they developed on group blog pages
- evaluate the shared materials from a group that were different from the materials evaluated by the students in their own group and post their individual evaluations on the evaluated group's blog post
- use the materials preparation guidelines while evaluating other groups' materials
- evaluate the shared materials of a different group who they did not evaluate previously in each turn and post their individual evaluation on the evaluated group's blog post
- respond to comments (about materials and reports) made by classmates as a group in the designated blog entry (the first stage ends here)
- re-arrange and share the materials and reports prepared after considering peers' and teachers' feedback in the blog environment (the second stage starts here)
- evaluate the second-stage shared materials of a different group and post individual evaluations on the evaluated group's blog post
- participate in threaded discussions and respond with group members to classmates' comments in the blog environment
- comment on others' work critically on their blog posts

The control group students were asked to:

- share their multimedia materials and report on their blog pages and their development each week as a group
- reorganize and share in the blog environment the course materials they have prepared by taking into account their peers' (if any) and teachers' feedback (the second stage starts here)

On a voluntary basis, the control group could also evaluate other groups' shared materials in the blog environment. If they chose to do this, they were expected to participate in threaded discussions in the blog environment and respond to comments from their peers on their products.

Experimental group students who participated in threaded discussions were evaluated by the researchers. Every week, researchers:

- evaluated and commented on the individual comments on the products of other groups
- evaluated and graded the responses of the groups to individual interpretations of their own products
- attempted to ensure that students' comments and responses were detailed and explanatory (superficial comments or responses received low grades)

The researchers also made evaluations based on the criteria in the instructions and published them via a cloud storage service, and they enabled the students in the control and experimental groups to see all of the detailed assessments made in their groups.

2.3. Data Analysis

After the data were collected, analysis of covariance (ANCOVA) was conducted to reveal the differences in the students' beliefs about blogging and peer evaluation. Multiple regression analysis was performed with IBM SPSS V20 statistical analysis software on the survey data in order to investigate the variables predicting course satisfaction. Prior to the analyses, the assumptions of ANCOVA and multiple regression were checked and no violation was detected. Total variance of the data was obtained, the statistical significance of the variance was explained, and the statistical significance of the predictor variables and the direction of the relationship between the predictive variables and the dependent variable are presented as tables.

2.4. Ethics Committee Permit Information

Ethical evaluation committee name= Bolu Abant Izzet Baysal University, Human Research Ethics Committee in Social Sciences

Date of ethical assessment decision= 14.11.2016

Ethical assessment document number number=2016/147

3. RESULTS

The students' responses to the data collection instruments were analyzed, and the findings were presented for the sub-objectives. Table 1 presents the descriptive statistics of the students with and without threaded discussion.

Table 1.

Descriptive Statistical Results of Students Using and Not Using Threaded Discussions in The Blog Environment

	N	Beliefs about blogging		Beliefs about peer review	
		X	SS	X	SS
Exp. group pre-test	46	4.08	.33	3.64	.66
post-test	46	4.15	.37	3.83	.71
Control group pre-test	26	3.91	.35	3.32	.62
post- test	26	3.88	.41	3.54	.64

The question was "Is there a significant difference between the post-test average scores corrected according to the pre-test average scores of the students in the experimental group using threaded discussion and the post-test average scores corrected according to the pre-test average scores of the students in the control group?" The single-factor ANCOVA test was used for repeated measurements to see whether there was a significant difference between the groups.

According to the results of the significance test ($p = 0.127$) between the mean scores of the adjusted scores in the groups, the effect of threaded discussion on beliefs about blogging was not significant (Table 2).

Table 2.*Effects of Beliefs About Blogging Among Subjects*

Source	Sum of squares	df	Mean Square	F	p	Partial (η^2)
Adjusted Model	4.726a	2	2.363	11.055	.000	.243
Constant	3.036	1	3.036	14.200	.000	.171
Bel. Blog. pretest	3.519	1	3.519	16.459	.000	.193
School	.510	1	.510	2.385	.127	.033
Error	14.750	69	.214			
Sum	1201.672	72				
Adjusted Sum	19.477	71				

a. $R^2 = .243$ (Adjusted $R^2 = .221$)

In the study, the experimental group's variance value of 0.235 and the control group's variance value of 0.308 were calculated. Even though the variance was different, the lack of a significant difference in the study may be due to the fact that, as Field (2009) mentioned, the groups do not represent equal sample sizes. Field (2009) stated that when a larger group has smaller variance, the test may not yield meaningful results even if the difference is significant.

The next question was "Is there a significant difference in the students' beliefs about peer review post-test average scores, corrected according to the pre-test average scores, in the experimental group using the threaded discussion and the post-test average scores, corrected according to the pre-test average scores, of the students in the control group?" Similarly, the single-factor ANCOVA test was used for repeated measurements to test whether there was a significant difference between the groups.

According to the results of the significance test ($p = 0.217$) between the mean scores of the adjusted scores in the groups, the effect of threaded discussion on beliefs about peer review was not significant (Table 3).

Table 3.*Effects of Peer Assessment Beliefs Among Subjects*

Source	Sum of squares	df	Mean Square	F	p	Partial (η^2)
Adjusted Model	.450a	2	.225	10.680	.000	.236
Constant	1.573	1	1.573	74.656	.000	.520
Peer assessment pre test	.364	1	.364	17.288	.000	.200
School	.033	1	.033	1.550	.217	.022
Error	1.454	69	.021			
Sum	9.565	72				
Adjusted sum	1.904	71				

Multiple linear regression analysis was conducted to determine the relationship between the students' course satisfaction scores and the predictive variables of blogging, peer review, ability to organize multimedia features, sense of community, collaborative learning, perceived learning, and threaded discussion, and the findings obtained are presented in Tables 4 and Table 5.

Table 4.*Pearson Correlation Analysis Results Related to The Relationship Between Course Satisfaction and Other Variables*

Variables	Course satisfaction
Sense of community	.748
Collaborative learning	.660
Perceived learning	.698
School	.487
Beliefs about blogging post test	.583
Peer assessment beliefs post test	.486
Ability to organize multimedia features	.533

Table 5.
Results of Multiple Regression Analysis for Predicting the Relationship Between Course Satisfaction and Sense Of Community, Collaborative Learning, Learning Perception, and Threaded Discussion

Independent Variables	B	SH	Beta β (Standardize)	t	p
Constant	-1.207	.472	-	-2.554	.013
Sense of community	.459	.169	.297	2.711	.009
Collaborative learning	.325	.121	.253	2.686	.009
Learning perception	.500	.137	.324	3.644	.001
Threaded discussion	.301	.135	.167	2.223	.030
R	.834				
R²	.696				
ΔR²	.678				
F	38.374				
ΔF	4				

*p<.05

When analyzed, according to the standardized regression coefficient (β), the order of importance of the predictive variables for predicting the course satisfaction score are as follows: perceived learning, sense of community, collaborative learning, and threaded discussion. It can be seen that these variables are statistically significant predictors of course satisfaction (Table 5). The t-test results for the significance of the regression coefficients also show that the variables that express beliefs about blogging, peer assessment, and the ability to organize multimedia features are not significant predictors of the course satisfaction score and do not have a significant effect on the course satisfaction score (Table 5).

According to the results of the multiple regression analysis in Table 5, the regression equation (mathematical model) for examining the relationship between the course satisfaction score and perceived learning, sense of community, collaborative learning, and threaded discussion is given below:

Experimental Group (group with threaded discussion) Course Satisfaction Score (Y) = 0.50 * Perception of Learning + 0.46 * Sense of Community + 0.33 * Collaborative Learning + 0.30 * Threaded Discussion - 0.906

Control Group (group without threaded discussion) Course Satisfaction Score (Y) = 0.50 * Perception of Learning + 0.46 * Sense of Community + 0.32 * Collaborative Learning - 1.207

According to this equation, the regression coefficient for learning perception is higher than the regression coefficients for sense of community, collaborative learning, and threaded discussion. This result shows that perceived learning has more of an effect on predicting the course satisfaction score than sense of community, collaborative learning, and threaded discussion. At the same time, it shows how perceived learning, sense of community, collaborative learning, and threaded discussion can affect the course satisfaction score. The variables of perceived learning, sense of community, collaborative learning, and threaded discussion explain about 70% of the total variance in course satisfaction.

4.DISCUSSION AND CONCLUSIONS

In this study, there was no significant difference in the students' beliefs about blogging and peer evaluation (according to the pre- and post-test results). This could be because the groups did not have an equal number of participants (Field, 2009). In addition, previous experience with using blogs before the study may be why the experimental and control group students did not experience significant differences in their blog beliefs after such a short experience. O'Brien (2010) reported that having experience in a social media platform can ritualize this platform by strengthening its use and forming habits around the platform. For this reason, using an instructional, blog-driven discussion may have a positive impact on the beliefs about blogging for students with little or no knowledge of blog use. An effective avenue of research could be studies conducted on students studying in different departments (in order to have students with little or no knowledge of blog use) (Divitini, Haugalokken, & Morken, 2005). Kubincová et al. (2013), contrary to the findings of this study, stated that using the peer evaluation method in their research changed students' beliefs about blogs positively.

One of the reasons there is no meaningful difference in the students' beliefs about blogs could be that students focused mainly on materials development and report preparation, and they focused less on the educational features of blogs; they only shared posts and commented on homework. In their study, Wiid, Cant, and Nell (2013) stated that although students believe that social media tools do not facilitate the learning process, they use these tools in their educational processes and see them as ideal tools for communication. As stated by Top et al. (2010) in their research, the students' beliefs about blogging may not have changed because they do not take advantage of all the

benefits of blogs. The course used in the study was a blended course where blogs were not used as the main communication tool, which may be the reason there was no significant difference in students' blog beliefs.

In the study, it was seen that there was no significant difference in the peer evaluation belief scores of the students (according to the pre- and post-test results). Because they had to be objective in their evaluations and because they already knew the members of the groups and classes, this also led to subjective evaluations and did not make a significant difference in the students' peer evaluation scores. Students becoming invested in their peers' work may explain why there is no significant difference in their peer evaluation scores. Students' evaluating each other with the goal of influencing individual achievement grades at the end of the semester may be another reason why there is no significant difference in the scores regarding students' beliefs about peer evaluation. Similarly, Swan, Shea, Fredericksen, Pickett, Pelz, and Maher (2000) found a negative relationship between group work and learning in online courses, especially when students' grades were highly dependent on group activities.

Unlike the findings of the present study, Kubincová et al. (2013) stated that the inclusion of well-regulated peer review studies significantly increased the students' course participation, and that this process was perceived as positive by most students. As in the study of Kubincová et al. (2013), the peer review process was followed, but the fact that students can meet face to face may explain why there is no significant difference in their peer evaluation belief scores.

Considering the students' answers on the questionnaires, it was found that sense of community, perceived learning, collaborative learning perception, and threaded discussion were the predictors of satisfaction with the course. It was seen that students' satisfaction scores were not affected by their beliefs about blogging, peer review, and their ability to organize multimedia features. Students had to work on the classroom products because of the demanding requirements of the course, and they may have been affected by the adversities of technology. This could explain why blogging, peer review, and the ability to organize multimedia features did not affect their satisfaction. Drennan, Kennedy, and Pisarski (2005) stated that student satisfaction is affected by positive perceptions of technology and autonomous learning. He also stated that students' personality traits may have a direct effect on their satisfaction with the course. This result may be due to the fact that the individuals in the study sample have similar characteristics or that the sample groups were composed of a limited number of individuals.

In the present study, it was seen that the most predictive variable was sense of community. Similar to this conclusion in literature, there are some studies showing that students' satisfaction with the sense of community is strongly related to their satisfaction with the course (e.g., Barnard et al., 2007; Drouin, 2008; Top et al., 2010). Drouin (2008) stated that sense of community was significantly associated with student course satisfaction in a psychology undergraduate course given online. Contrary to the findings of the current study, there are also studies that have not found a meaningful relationship between sense of community and student satisfaction (Hemphill, 2011).

Barnard et al. (2007) concluded that course designers and instructors should consider sense of community as an important indicator of student satisfaction in online courses. Students are expected to develop a positive sense of community when learning through online discussion and receiving social opportunities; this contributes to their perceptions of course satisfaction, perceived learning, and social locality (Rovai, 2002; Top, 2012). The similarity of this study is that when online learning is provided and social opportunities are given, the students' sense of community develops, and their sense of community positively affects their satisfaction with the course. In this study, blogs were used as a learning and homework-sharing environment. In this respect, according to the findings of the study, sense of community is the most predictive variable. In order to increase participant satisfaction, sense of community should be taken into consideration in online course design, and practices (e.g., team-building activities and group interaction) should be created to develop a sense of community (Barnard et al., 2007; Top, 2012).

As in this study, there are studies showing that student satisfaction is strongly related to learning perceptions (Lo, 2010). Lo (2010) states that teaching methods that stimulate the students' thinking and learning have a strong impact on their satisfaction. Teerawut (2011) states that student satisfaction is perceived and evaluated based on the expectations of each service in the school, and that student satisfaction is the students' feedback about a particular program. Fredericksen et al. (2000) stated that the most important contribution to perceived learning in online courses was the interaction with teachers. In addition, students who reported that they participated more actively in an online class than in a normal class reported that their perceived learning was at the highest level. They also stated that interaction with classmates contributed significantly to the perception of learning in online courses. However, Fredericksen et al. (2000) also stated that student motivation to take a certain course may play an important role in the perception of learning. As Lo (2010) stated that satisfaction factors are related to learning perception, it can be said that satisfaction factors such as the instructor, student performance, lesson policies, school services, feedback on the program, participation in online classes, motivation, and age are related to

perceived learning. In the present study, it can be said that these factors relate to satisfaction, which can be associated with the perception of learning.

The results of this study are similar to many studies indicating that there is a high degree of significant correlation between course satisfaction and collaborative learning perception (Alavi, 1994; So & Brush, 2008; Tseng, Wang, Ku, & Sun, 2009; Wengrowicz, Swart, Paul, Macleod, Dori, & Dori, 2018). So and Brush (2008) concluded that students with a high level of collaborative learning perception are more satisfied than students with low levels of collaborative learning perception. Tseng et al. (2009) reported that “trust among teammates” and “organizational practices” were effective factors for explaining satisfaction with online collaboration. Alavi (1994) showed interaction as an indicator of student satisfaction and promoted online collaborative activities. Unlike the findings of the current study, Thurmond, Wambach, Connors, and Frey (2002) reported that students who wish to work in groups reported less satisfaction than their peers. The reason behind the dissatisfaction is the difficulty of online collaboration.

There are some studies indicating that threaded discussion forums have been examined as a factor affecting satisfaction (Maurino, 2007). Sher (2009), Li, Tang, Cao, and Hu (2018), and Thurmond et al. (2002) found satisfaction to be positively affected by student-student and teacher-student interactions. Because most of the interactions take place through discussion, the positive impact of threaded discussion on satisfaction in the current study is in line with Sher’s (2009) findings. In his study, Zhu (2012) investigated the satisfaction of students in two different cultures through online group discussions. He also reported that the students were satisfied with the online group discussion. Jung et al. (2002) found that student satisfaction is more related to student-student interaction rather than student-teacher interaction when investigating the effects of different types of online interaction on course satisfaction. They found that students, together with the teacher, collaborating with each other (i.e., solving a problem on a discussion board) showed the highest level of satisfaction. Similarly, Thurmond et al. (2002) emphasized that the perception of timely teacher feedback is an important variable that predicts satisfaction. Kuo, Walker, Schroder, and Belland (2014) stated that student-teacher and student-content interaction were significant predictors of student satisfaction, but student-student interaction was not a predictor of student satisfaction when group activities were not required for students. Although there are many studies in the literature showing that threaded discussion positively affects satisfaction, Watson and Rutledge’s (2005) results showed that 30% of students did not agree with the expression “I felt my online class was a normal class,” which demonstrated a degree of dissatisfaction with interactions.

In the present study, it was seen that beliefs about blogging is not one of the variables predicting course satisfaction. In contrast to the findings of this study, Popescu (2016) reported that blogs encouraged collaborative structuring of information and increased student satisfaction. In his study, Shih (2012) found that the characteristics of the blog were important factors that motivated the students to learn and increased the satisfaction with the course. There are also researchers who claim that the use of blogs increases course satisfaction, and that course satisfaction increases the desire to continue using the blog (Shiau & Luo 2013). While students’ blog beliefs are high ($\mu = 4.05$), it is not a significant predictor of their satisfaction. This may be because these students had prior blogging experience. At the same time, Shih (2012) reported that engaging blog content contributes to student satisfaction. In this study, only reports and developed materials were shared on the blogs, so the blogs were not attractive for students and did not affect their course satisfaction. Encouraging students to make the content they publish on the blog interesting, providing an appropriate environment, and giving the opportunity to collaborative work can affect their course satisfaction positively.

One of the variables that did not predict satisfaction in the study was beliefs about peer assessment. Lin et al. (2002) found that student satisfaction was significantly related to the peer assessment score in group activities in online environments. Long et al. (1998) reported that people with strong individualist values, people who had lower evaluations than their peers, and those who were prejudiced about peer assessment were less satisfied with the peer review process. Paswan and Gollakota (2004) reported that the dominance, dependability, and individualism dimensions of peer assessment did not have a significant effect on students’ overall satisfaction. In their study, the teacher’s evaluation of homework, reports, and discussions may have caused the students to not rely on their peers’ evaluations and comments (Long et al., 1998; Paswan & Gollakota, 2004). In addition, peer evaluation was considered as a one-dimensional variable in the study. As Paswan and Gollakota (2004) stated in their study, using a multi-dimensional peer review scale could give more detailed information. Some of these sub-dimensions could predict course satisfaction, as in Paswan and Gollakota’s (2004) study.

In the current study, it was observed that the beliefs about one’s ability to organize multimedia features variable was not one of the variables that predicted course satisfaction. Neo and Neo (2009) reported that students who designed a multimedia product in their classes were pleased with their contributions to the project. Neo and Neo (2010) stated that in a collaborative learning environment, students who design multimedia products have high motivation and participate actively in the learning process. Neo et al. (2012) also reported that students who

designed a multimedia product in a hybrid education environment using authentic learning methods had high levels of understanding and contributions. Similarly, Liu (1998) showed that multimedia design for a real audience helps to make greater changes in student motivation and design knowledge.

In spite of these findings in the studies examined, it was observed that the beliefs about one's ability to organize multimedia features in the current study did not have a predictive effect on course satisfaction. The reason for this may be that other factors affecting course satisfaction are more dominant in predicting satisfaction or the fact that the primary factors that predict course satisfaction were included. Despite these findings in the studies investigated, in the current study, the reason beliefs about one's ability to organize multimedia features does not have a predictive effect on course satisfaction may be the predominance of course satisfaction and the inclusion of primary factors that predict course satisfaction. According to the findings of this study, there was no predictive effect of beliefs about one's ability to organize multimedia features together with other factors, but a significant correlation (0.53) was found between course satisfaction and beliefs about one's ability to organize multimedia features. The inclusion of multimedia development technology and a constructivist learning approach in the learning process provides strong support and encouragement for learning (Neo & Neo, 2009). Students developing a multimedia project can be active and motivated in the process as well as develop positive attitudes and perceptions (Neo & Neo, 2010). Students who feel that their multimedia activities are authentic and who feel related to these projects find these activities interesting (Neo & Neo, 2010; Neo et al. 2012). It can be said that learning by designing a multimedia product can help students to increase their motivation and gain original design skills (Liu, 1998).

In the present study, it was seen that the sense of community, perceived learning, collaborative learning, and threaded discussion all predicted course satisfaction. At the same time, it was found that beliefs about blogging, peer review, and one's ability to organize multimedia features did not predict course satisfaction, but a significant relationship was found when the correlations between course satisfactions were examined. This meaningful relationship can be said to be in parallel with the findings of other studies in the literature (e.g., Drouin, 2008; Kuruçay, 2015; Lo, 2010; Sher, 2009; So & Brush, 2008; Teerawut, 2011; Tseng et al., 2009; Zhu, 2012). At the same time, many studies have stated that there are factors related to course satisfaction, and the results obtained in this study support this idea. The findings of this study can guide educators in determining priorities in order to increase course satisfaction in environments where blogs are used.

Similar future studies may be conducted with different groups or larger groups to test or generalize the findings of the current study. Qualitative assessments can also be performed in order to conduct an in-depth review of the use of threaded discussions. Similarly, with a sample that only includes students using threaded discussion, different studies can be conducted, and more detailed information can be obtained about these students' satisfaction with the course. In order not to negatively affect peer assessment, the research could be renewed by removing teacher assessment from the process.

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GENİŞLETİLMİŞ ÖZET

1. Giriş

Web 2.0 aracı olarak bloglar, bilgi kullanıcıları olmaktan daha çok, bilgi yaratıcısı ve bilginin artırılmasına katkı sağlayan kullanıcılar olarak, internet kullanım algımızı değiştirmiştir. Bloglar bilgiyi oluşturmak için diğerlerinin mesajlarına yorum yapma imkânı sağlayarak, sanal ortamda kullanıcıları etkileşime, yaratıcılığa ve paylaşmaya davet eder. Eğitimde blog kullanımının sağladığı avantajlar birçok araştırmacı tarafından belirtilmiştir.

Alan yazında çevrimiçi eğitimde öğrenci memnuniyetini etkileyen çeşitli faktörlerin araştırmacılar tarafından incelendiği görülmektedir. Örneğin birçok çalışmada, çevrimiçi öğrenme ortamında akran değerlendirme ile ders memnuniyeti arasında anlamlı ilişki bulunmuştur. Benzer şekilde, işbirlikli öğrenme ve memnuniyet algısı arasında güçlü pozitif bir ilişki ortaya konulmuştur. Birçok çalışmada, yönlendirilmiş tartışma veya tartışma çevrimiçi derslerde ders memnuniyetini pozitif yönde etkileyen faktör olarak belirtilmektedir. Ders memnuniyetinin topluluk hissi ile ilişkili olduğunu belirten birçok çalışma bulunmaktadır. Öğrencilerin ders memnuniyetinin, öğrenme algılarıyla da güçlü bir şekilde ilişkili olduğunu vurgulayan çalışmalar görülmektedir. Geliştirdikleri öğretim materyalini bloglarda paylaşarak dönüt alan öğrencilerin memnuniyetlerinin yüksek olduğunu gösteren çalışmalar bulunmaktadır. Blog özelliklerinin öğrenci memnuniyetini artırdığını vurgulayan çalışmalar mevcuttur.

Blogların eğitim ortamlarında potansiyellerinin ortaya çıkarılması için uygun yöntem ve tekniklerin kullanılması gerekmektedir. Fikir alışverişine olanak sağlayan çevrimiçi yönlendirilmiş tartışmalar öğrencilerin daha derin ve daha yansıtıcı öğrenmelerine yardımcı olabilmektedir. Alan yazındaki çalışmalara bakıldığında çevrimiçi eğitim ortamında yönlendirilmiş tartışmayı inceleyen çalışmaların oldukça az olduğu görülmüştür. Bu çalışmada ise blog ortamında yönlendirilmiş tartışma kullanılan eğitim sürecinde öğrencilerin memnuniyeti çeşitli açılardan incelenmiştir. Öncelikle süreç sonunda öğrencilerin blog ve akran değerlendirme hakkında görüşlerinde anlamlı bir değişiklik olup olmadığı incelenmiştir. Sonrasında ise, blog ortamında yönlendirilmiş tartışma kullanımı ile öğrencilerin işbirlikli öğrenme, topluluk hissi, öğrenme algısı, yönlendirilmiş tartışma, blog, akran değerlendirme ve çoklu ortam özelliklerini düzenleyebilme inancının ders memnuniyetini ne ölçüde yordadığını belirlenmeye çalışılmıştır.

2. Yöntem

Bu çalışmada, sosyal bilimlerde sıklıkla kullanılan bir model olan, yarı deneysel modellerden “eşleştirilmemiş kontrol gruplu desen” kullanılmıştır. Çalışmada her iki gruba da deney öncesi ve deney sonrası anket uygulanmıştır. Gruplar içi karşılaştırmalar ile de ön test-son test puanları arasındaki fark incelenmiştir. Araştırmanın örneklemini, 2 farklı üniversitede, Bilgisayar ve Öğretim Teknolojileri Eğitimi Bölümü, Çoklu Ortam Tasarımı ve Üretimi dersini alan 3. Sınıf öğrencilerinden toplam 72 öğrenci oluşturmaktadır. Dersin her iki üniversitedeki kontrolü ve etkinlikler araştırmacılar gözetiminde gerçekleştirilmiştir. Uygulamaya sınıfların tamamının katılması sağlanmıştır. Her bir grubun ders memnuniyetlerini etkileyen faktörlerin tespiti için hazırlanan anket ile veriler toplanmıştır. Bu çalışmada yedi farklı ölçek kullanılmıştır. Öğrencilere deney öncesi iki farklı ölçeğin, deney sonrası da yedi farklı ölçeğin bulunduğu çevrimiçi anket uygulanmıştır. Her iki gruba da deneysel işlem öncesi ve sonrası “Öğretimsel Blog Kullanmanın Faydaları Ölçeği” ve “Akran ve Öz Değerlendirmeye İlişkin Görüşler” anketinin Akran Değerlendirme boyutu ön test ve son test olarak uygulanmıştır. Her iki gruba da deneysel işlem sonrası “Topluluk Hissi Ölçeği”, “Öğrenme Algısı Ölçeği”, “İşbirlikli Öğrenme Ölçeği”, “Ders Memnuniyeti Ölçeği”, “Eğitsel Yazılım Değerlendirme Ölçeği”nin Görsel Tasarım Özellikleri ve Çoklu Ortam Özellikleri boyutu son-test olarak uygulanmıştır. Dersin hedeflerine ulaşmak amacıyla; deney ve kontrol grubu öğrencilerine yönelik, belirlenen yöntem ve teknikler doğrultusunda aynı içeriğin sunulduğu yönergeler hazırlanmıştır. Öğrenciler tarafından podcast, videocast, oyun, tutorial ve portfolyo'dan oluşan beş farklı öğretim materyali (çoklu ortam ürünü) geliştirilmiştir. Bunun için sınıflarda bulunan öğrencilerden 3'er kişilik gruplar oluşturulmuştur. Yönergeler doğrultusunda öğrencilerin geliştirdiği materyaller düzenli olarak takip edilmiştir. Grupların materyalleri iki aşamada hazırlamaları planlanmıştır. Öğrencilerden geliştirdikleri ders materyallerini ve raporları blog ortamında paylaşmaları istenmiştir. Yönlendirilmiş tartışmalara katılma durumları deney grubu öğrencileri için zorunlu tutulmuş ve araştırmacılar tarafından kontrol edilmiştir. Araştırmacılar ayrıca yönergelerdeki kriterlere göre değerlendirmeleri yapıp bulut depolama servisi aracılığıyla yayınlamışlardır. Kontrol ve deney grubundaki öğrencilerin, sadece kendi grubunda yapılan bütün araştırmacı değerlendirmelerini görmeleri sağlanmıştır. Uygulama öncesinde veri toplama aracı olarak belirlenen anketlerden blog inancı ve akran değerlendirme inancı ölçekleri ile veriler toplanmıştır. Etkinliklerin tamamlanmasının ardından veri toplama aracı olarak belirlenen anket ile veriler elde edilmiştir. Veriler toplandıktan sonra, blog ortamında yönlendirilmiş tartışma kullanımının öğrencilerin blog ve akran değerlendirme inançlarındaki farklılıkları ortaya çıkarmak için kovaryans (ANCOVA) analizi yapılmıştır. Öğrencilerin ders memnuniyetlerini yordayan değişkenlerin farklılık

gösterip göstermediğini araştırmak için öğrencilere deney sonrasında uygulanan anket verileri üzerinde çoklu regresyon analizi yapılmıştır.

3. Bulgular, Tartışma ve Sonuç

Yönlendirilmiş tartışma kullanılan deney grubundaki öğrencilerin blog inancı ön test ortalama puanlarına göre düzeltilmiş son test ortalama puanları ve yönlendirilmiş tartışmanın kullanılmadığı kontrol grubundaki öğrencilerin blog inancına ilişkin düzeltilmiş son test ortalama puanları arasında anlamlı bir fark bulunmamıştır. Düzeltilmiş puanların gruplardaki ortalamaları arasında anlamlılık test sonucuna göre akran değerlendirme inancı üzerinde yönlendirilmiş tartışma etkisi anlamlı bulunmamıştır. Yapılan analizler incelendiğinde, yordayıcı değişkenlerin ders memnuniyeti puanını yordamaya yönelik önem sırası; öğrenme algısı, topluluk hissi, işbirlikli öğrenme ve yönlendirilmiş tartışma kullanma şeklindedir. Bu değişkenlerin ders memnuniyeti üzerinde istatistiksel olarak anlamlı birer yordayıcı olduğu görülmektedir. Regresyon katsayılarının anlamlılığına ilişkin t-testi sonuçları incelendiğinde ise; blog inancı, akran değerlendirme inancı ve çoklu ortam özelliklerini düzenleyebilme inançlarını ifade eden değişkenlerin, ders memnuniyeti puanı üzerinde anlamlı yordayıcılar olmadıkları ve ders memnuniyeti puanı üzerinde önemli bir etkiye sahip olmadıkları bulunmuştur. Öğrenme algısı, topluluk hissi, işbirlikli öğrenme ve yönlendirilmiş tartışma değişkenleri birlikte ders memnuniyetindeki toplam varyansın yaklaşık %70 ini açıklamaktadır.

Öğrencilerin araştırma öncesinde blog kullanımı deneyimi olması, deney ve kontrol grubu öğrencilerinin kısa süren bir deneyim sonunda blog inancı puanlarında anlamlı farklılık oluşmamasının nedeni olabilir. Öğrencilerin blog inançlarında anlamlı bir fark ortaya çıkmamasının bir sebebi olarak öğrencilerin materyal geliştirme ve rapor hazırlama üzerinde çok fazla odaklanıp blogların eğitsel özelliklerine odaklanmadıkları, blogları sadece ödevlerini paylaştıkları ve ödevler hakkında yorum yaptıkları bir araç olarak gördükleri söylenebilir. Çalışmada öğrencilerin akran değerlendirme inancı puanlarında anlamlı bir farkın olmadığı görülmüştür. Öğrencilerin gruplarında ve sınıflarındakileri önceden tanıdıkları için değerlendirmelerde objektif olmak zorunda bırakılsalar bile bu durum subjektif değerlendirmelere de yol açmış ve öğrencilerin akran değerlendirme puanlarında anlamlı bir fark oluşturamamış olabilir. Öğrencilerden akranlarının çalışmalarının sorumluluğunu da alması onların akran değerlendirme puanlarında anlamlı bir fark olmasını açıklayabilir. Öğrencilerin memnuniyet puanlarının, blog, akran değerlendirme ve çoklu ortam özelliklerini düzenleyebilme inançlarından etkilenmediği görülmüştür. Bunun nedeni, dersin gerektirdiği sorumlulukların fazla olması sebebiyle ürünler üzerinde çaba göstermeleri gerektiğinden veya teknolojinin olumsuzluklarından etkilenme durumları dolayısıyla blog, akran değerlendirme, çoklu ortam özelliklerini düzenleyebilme inancının memnuniyetlerini etkilememe nedeni olabilir. Çalışmada, ders memnuniyetini en çok yordayan değişkenin topluluk hissi olduğu görülmüştür. Alanyazında bu sonuca benzer şekilde dersinde öğrencilerin topluluk hissi ile memnuniyetinin birbirleriyle güçlü bir şekilde ilişkili olduğunu bildiren çalışmalar bulunmaktadır. Öğrencilere çevrimiçi tartışma yoluyla öğrenme sağlandığında ve sosyal fırsatlar verildiğinde, olumlu bir topluluk hissi geliştirmeleri beklenir; bu onların, ders memnuniyeti, öğrenme algısı ve toplumsal buradalık algısına katkıda bulunur. Bu çalışmada da bloglar, öğrenim ortamı ve ödev paylaşım ortamı olarak kullanılmıştır. Bu bakımdan çalışmanın bulgularına göre de topluluk hissi, ders memnuniyetini en çok yordayan değişkendir. Katılımcıların ders memnuniyetini artırmak için çevrimiçi ders tasarımında topluluk hissi dikkate alınmalı, topluluk hissini geliştirecek uygulamalar (örneğin, takım oluşturma aktiviteleri, grup etkileşimi) yapılmalıdır. Bu çalışmada olduğu gibi, öğrencilerin ders memnuniyetinin, öğrenme algılarıyla güçlü bir şekilde ilişkili olduğunu gösteren çalışmalar bulunmaktadır. Memnuniyet faktörleri öğrenme algısıyla ilişkili olduğundan, öğretici, öğrenci performansı, ders politikası, okuldaki hizmet, program hakkında geri bildirim, çevrimiçi derse katılım, motivasyon, yaş gibi memnuniyet faktörlerinin öğrenme algısıyla ilişkili faktörler olduğu söylenebilir. Bu çalışmanın sonuçları, ders memnuniyeti ve işbirlikli öğrenme arasında yüksek derecede anlamlı ilişki olduğunu belirten birçok çalışmaya benzemektedir. Birçok çalışmada işbirliğine dayalı öğrenme algıları yüksek düzeyde olan öğrencilerin, iş birliğine dayalı öğrenme algıları düşük düzeyde olan öğrencilere göre dersten daha memnun oldukları sonucuna varılmıştır. Çalışma bulgularındaki gibi yönlendirilmiş tartışma formlarının memnuniyeti etkileyen bir faktör olarak incelendiğini söyleyen araştırmalar bulunmaktadır.

Çalışmada, blog inancının ders memnuniyetini yordayan değişkenlerden biri olmadığı görülmüştür. Bu çalışmada bloglarda sadece raporlar ve geliştirilen materyaller paylaşılmıştır, bu yüzden öğrenciler tarafından ilgi çekici bulunmamış ve ders memnuniyetine etki etmemiş olabilir. Öğrencilerin bloglarda yayınladıkları içeriklerin ilgi çekici hâle getirmeleri için teşvik edilmeleri, uygun ortam sağlanması ve fırsat verilmesi onların ders memnuniyetini olumlu etkileyebilir. Çalışmada ders memnuniyetini yordamayan değişkenlerden biri de akran değerlendirme inancıdır. Çalışmada çok boyutlu bir akran değerlendirme ölçeği kullanmak daha detaylı bilgiler verebilirdi. Bu alt boyutlardan bazıları ders memnuniyetini yordayabilirdi. Çalışmada, çoklu ortam düzenleyebilme inancının ders memnuniyetini yordayan değişkenlerden biri olmadığı da görülmüştür. Bu çalışmada çoklu ortam özelliklerini düzenleyebilme inancının ders memnuniyeti üzerinde yordayıcı bir etkisi olmamasının sebebi; ders memnuniyetini etkileyen diğer faktörlerin ders memnuniyetini yordamada daha baskın

olması, ders memnuniyetini yordayan birincil (öncelikli) faktörlerin araştırmaya dâhil edilmesi olabilir. Araştırmanın bulgularına göre, çoklu ortam özelliklerini düzenleyebilme inancının diğer faktörlerle birlikte yordayıcı etkisinin olmadığı ancak Çoklu ortam ürünü tasarlayarak öğrenmenin öğrencilerin motivasyonlarını artırmada ve özgün tasarım becerileri kazandırmada yardımcı olduğu söylenebilir.

Yapılan bu çalışmada topluluk hissi, öğrenme algısı, işbirlikli öğrenme, yönlendirilmiş tartışmanın ders memnuniyeti ile ilişkili olduğu görülmüştür. Aynı zamanda blog, akran değerlendirme ve çoklu ortam özelliklerini düzenleyebilme inancının ders memnuniyetini yordamadığı ancak ders memnuniyeti ile arasındaki korelasyon incelendiğinde anlamlı bir ilişki olduğu bulunmuştur. Aynı zamanda birçok çalışmada ders memnuniyetiyle ilişkili faktörlerin olduğu ifade edilmektedir ve bu çalışmada elde edilen sonuçlar da bu düşüncüyü desteklemektedir. İleriki çalışmalarda çalışmanın bulgularını test edecek veya genelleyecek farklı veya daha kalabalık gruplarla benzer çalışmalar yapılabilir. Bireylerin yönlendirilmiş tartışma kullanımları hakkında derinlemesine bir inceleme yapabilmek için nitel değerlendirmeler de yapılabilir. Benzer şekilde sadece yönlendirilmiş tartışma kullanan öğrencilerin olduğu bir örneklem ile farklı çalışmalar yapılarak bu öğrencilerin ders memnuniyetleri konusunda daha ayrıntılı bilgi sahibi olunabilir. Akran değerlendirmesini olumsuz etkilememesi için öğretici değerlendirmesi süreçten çıkarılarak araştırma daha yenilenebilir.

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