

## INVESTIGATING THE USAGE OF BLOGS IN EDUCATIONAL SETTINGS FROM MULTIPLE INTELLIGENCES PERSPECTIVE

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### ABSTRACT

In this case study, it is aimed to investigate the use of blogs in educational settings from the multiple intelligences perspective. Thus both qualitative and quantitative measures were used to gather and analyze the data. The results of the study revealed that the participants favored creating, managing their own blog page and sharing their own works through their blog pages with others. The blog usage activity was addressing interpersonal, intrapersonal and linguistics intelligence types, which were also the top three leading intelligence types of the group, besides visual/spatial and kinesthetic.

**Keywords:** blogs, multiple intelligence, technology integration, educational social software

### INTRODUCTION

The aspects of the education are changing in parallel with the innovations in technology. It is very essential for instructors benefit from the opportunities and possibilities of these innovations in order to facilitate the effective teaching and learning according to their needs. Among these computer and Internet-based innovations, educational social software come to forth recently due to their technical capabilities for providing communication and interaction among users. Socialization, communication and level of interactivity are the factors that directly influence the quality of online learning environments.

Blogs are like online diaries published on the web that reflects personal opinions, feelings, hobbies, and experiences about specific topic or theme. Moreover, blogs are updated on a regular basis by using software with user-friendly interface. This sort of software provides users with opportunity for using and managing their own blogs with little or even no technical information. Furthermore, these web pages allow other blog readers post their comments or news to the blogs. “Blogging” is an act of updating and keeping a blog whereas “blogger” refers to the person who performs the blogging activity.

Todoroki, Konishi and Inoue (2006) summarize the basic functions of blogs as displaying the contents in a chronological order, displaying various kinds of contents, commenting on posted entries, and registering newly edited contents. Basically, blog readers read information and opinion, post their opinions, and interact with bloggers and other blog readers. Users may fully participate in online discussions and send their links to additional information. The amount of participation can vary from session to session, blog to blog or user to user (Kaye, 2005).

In addition to their growing popularity, blogs can be used in educational environments for many purposes. Constructing blogs are not only be used for enhancing writing-reading skills, analytic, critical thinking skills, for supporting interaction, communication and discussion, but also for sharing and publishing artifacts like e-portfolios. Related to this issue, Hsu (2007) stated that the educational uses of blogs benefit from the opportunity of their ability to support and encourage expression and development of online relationships. Birney, Barry, and Ó hEigeartaigh (2006) stated as the some features of blogs that they allow students to socialize and support each other as a part of learning community and in e-learning they provide a platform for learners to reflect their learning. Moreover, as a support for distance learning, instructors can use blogs in blended and online learning to facilitate some strategies: posting student work, exchanging hyperlinks, fostering reflective approaches to educational genres, forming and maintaining knowledge communities (Oravec, 2003). Basically, blogging can be used for many purposes by engaging students in discussion, exploration and discovery (Glogoff, 2005).

Glogoff (2005) illustrates the value of blogging in educational environment; he suggests some aspects to the use of blogging as follows:

- Instructional blogging, where instructors engage students in research activities by supporting discussion and leading them to learn knowledge domain,
- Learner-centered blogging, where instructors take care about learners' characteristics and give importance to give positive feedback and comments to their blog entries,
- Community-centered instruction for supporting the importance of social and peer interaction,
- Receptive learning tool for encouraging students to acquire information from resources and reflect,
- Directive learning environment for providing students to access information and directing them to explore additional information, and
- A guided discovery and knowledge construction for presenting information architecture and exploring more from resources.

According to Hsu (2007), the common advantages of the use of blogs are “reflection and critical thinking are encouraged, authenticity through publication, social presence, development of a learning community, active learning encouraged and ability to receive and respond to feedback” (p. 78). Moreover, the researcher offered that blogs can be used as online learning journal, problem solving/manipulation space, online gallery space (writings, portfolio, other work), peer review exercises in writing, foreign language courses and research seminars.

Publication and sharing of artifacts, lecture notes, reflections on specific topics may provide others opportunity to review, comment, critique or study. Moreover, blog readers can support communication and interaction with content, bloggers and others.

Technology-rich environments like blogs, also helps educators to respond individual differences such as cognitive styles, learning styles and multiple intelligences or various content presentations. The perspective of multiple intelligences was considered for this study. It is very significant here to discuss the multiple Intelligence theory in terms of individualizing aspect of blogs.

Multiple Intelligences Theory was posed by Howard Gardner in 1983. The underlying idea of the theory was to address differences of learners in terms of teaching and learning from different perspectives. According to this theory one individual may differ from others with different skills, where these different abilities composed the scope of Multiple Intelligences Theory. Moreover, one student can interest in calculating, one may enjoy dealing with people and one other may interested in playing in musical instruments. Gardner and Hatch (1989) defined the intelligence as the capacity to solve problems or to fashion products that are valued in one more cultural setting. And he formulated a list of eight intelligences: Verbal-Linguistic (Word Smart); Logical-Mathematical (Number Smart), Visual-Spatial (Picture Smart), Bodily-Kinesthetic (Body Smart), Musical-Rhythmic (Music Smart), Interpersonal (People Smart), Intrapersonal (Myself Smart) and Naturalistic (Nature Smart) (Gardner, 1983, 2006; Gardner & Hatch, 1989).

**Verbal-Linguistic intelligence (Word Smart)** includes the sensitivity to written and spoken language, the ability to learn languages, and the ability to use language to accomplish certain goals like effectively use language to express ideas.

**Logical-mathematical intelligence (Number Smart)** involves the capacity of analyzing problems logically, solving mathematical operations, and investigating and reasoning issues scientifically.

**Visual-Spatial intelligence (Picture Smart)** consists of the capacity to visualize graphics, to imagine the details of an object mentally, to use the patterns of space and to draw visually appealing graphics and arts.

**Bodily-kinesthetic intelligence (Body Smart)** involves the potential to use one's whole body or parts of the body mentally and physically in harmony.

**Musical-Rhythmic intelligence (Music Smart)** includes the capacity to recognize and to compose of musical patterns, rhythms, tones.

**Interpersonal intelligence (People Smart)** interests in the potential of to understand and interpret the intentions, motivations and desires of other people.

**Intrapersonal intelligence (Myself Smart)** deals with one's ability to recognize own inner process meaning feelings, fears and motivations.

**Naturalist intelligence (Nature Smart)** involves sensitivity towards features and elements in environment and nature.

To enhance learning environment addressing multiple intelligences of the students, educators can use the opportunities of computer and other technologies. Lamb (2004) stated that technology can be integrated to the classrooms to facilitate learning in each intelligence area. The key point for successful technology integration of multiple intelligences is to provide the most effective learning environment for students.

In technology based environments, instructors can use words, images, sounds, animations, films and other software programs to organize, and present the information. Additionally, instructors also take advantages of web technologies for accessing different resources, materials and experts from any organizations. It is possible to support and address each type of multiple intelligence through using computer-based and internet-based technologies.

Computer based technologies can be a valuable and vital tool when they addressed the Multiple Intelligences to allow instructors to reach students with a variety of learning styles (Davis, 1991). The digital medium facilitating active student learning with public, visual, and kinesthetic properties, especially well-suited for active, collaborative student-centered learning that covers multiple intelligences (Schrand, 2008). When students are supported to use their intelligences creatively, computers may help the students to extend and enhance what they are able to perform, regardless of tasks like a report, a concept map, and a presentation. The role of the instructor is to investigate how students learn best and which instructional media enhance their intelligences, motivation, and inquiry (Carlson-Pickering, 1999).

There are many ways and programs to integrate the use of computer to support and enhance the multiple intelligences of the students: For Linguistic intelligence, any activity aiming the use of writing reading skills can be accomplished by using word processor, desktop publishing, animation software, multimedia editing software, web development tools, web-based educational software, and search engines, virtual courseware, research tools, collaborative software, educational games, electronic libraries. In order to address Logical ability of the students, desktop publishing, simulation software, educational games, drill and practice, mathematical software, concept mapping software, database management software, search engines, research tools, programming languages, architecture software can be considered according to the specific situations.

For Kinesthetic intelligence, all hands-on activities with computers, simulation games, and virtual reality environments might be useful. For Visual/Spatial ability of the students, animation software, video editing software, graphics/image editor, simulation software, educational games, tutorials, drill and practice, multimedia editing software, video conferencing, concept mapping software, modeling (3d) programs, search engines, architecture software can be preferred to support the visual representations in the mind.

It is possible to motivate students through music, animation software, audio editing software, video editing software, simulation software, educational games, tutorials, drill and practice, multimedia editing software, audio conferencing, video conferencing, musical and melody software, voice synthesizer can be best choices among alternatives for improving Musical intelligence. To empower Interpersonal ability of the students any activity required to communicate and interact with others can be offered them. Some programs like educational social software, simulation games, and multiplayer games provide opportunities for that kind of activities.

Intrapersonal intelligence can be addressed with any type of activity performed in a self-paced and as an individual. Computer-aided software like tutorials, drill and practice, web-based courses are special examples that can be used for this intelligence type. To support Naturalistic part of the students any topic covering issues from the nature can be required to complete with the programs mentioned above.

Context of the activities or tasks may determine standard in evaluating and selecting software. A software application should be part of a larger instructional approach addressing a variety of intelligences in classroom settings (McKenzie, 2003). By means of context, it is easy to match with more than one intelligence types. Computer based applications are ways that offer some opportunities for students to work in different platforms whereas, context of tasks include some specific goals like teaching content, providing different learning opportunities, and meeting needs of students.

Addressing the concept of learning styles, meaning learning in different ways, instructors need to try to best meet the needs of the learners by providing a variety of lessons using various teaching methods and technologies. Technology and computers are easy ways that helping to combine various media formats and can support a variety of different learning opportunities (Rosen, 1997).

## METHODOLOGY

This research was conducted to investigate the usage of blogs in educational settings from multiple intelligences perspective. For this purpose, both qualitative and quantitative measures were used. The proposed study attempt to find solutions to the following research questions:

1. What are dominant intelligence types of the participants?
2. What are the general thoughts of the participants about usage of blogs?

### **Participants**

The participants of this study were the students of one undergraduate course “Computer II” offered by the Turkish Education Department (TE) of a private university. This course was offered to second year students of TE and lasted in fourteen weeks in spring semester. Weekly schedule of the course consists of four hours where 2 hours for theoretical underpinnings and 2 hours for hands-on experience. Simple graphic editing, advanced Internet searching, advanced MS Office programs usage, creating documentary films and constructing blog pages are formed the main scope of this course. 33 students in this course participated in this study. Among 33 sophomores, 24 of them were female (72.7 %), and 9 male (27.3%). The mean of the students’ age was 21.6. Of these, 31 have personal computer at home and 2 do not have computer at home. Among these students, 26 have access to the Internet from their house or dormitory whereas 7 have no access to the Internet from their house or dormitory. 11 students used computer more than 5 years, 9 students used computer 3-5 years, 10 students use computer 1-3 year and 3 students use computer less than 1 year. Regarding average usage of the computer in a day, 3 students use computer more than 5 hours, 4 students use computer 3-5 hours, 19 students use computer 1-3 hours and 7 students use computer less than 1 hour.

### **Instruments**

The questionnaire consisted of 3 parts. The first part of the questionnaire consisted of seven items for eliciting demographic data about participants. In the second part, the Multiple Intelligence Evaluation Questionnaire originally developed by Armstrong was used to answer the first research question of the study. These items are related to 8 intelligence types and each intelligence type consisted of 6 items. The questionnaire was translated into Turkish and a pilot study was carried out by different researchers in a private educational institution, where the reliability coefficient value was found to be 0.94. For the current study reliability coefficient was found as 0.85. The items in this part were in the type of yes/no type and coded as 1 yes and 2 as no. In order to elicit more detailed information about participants’ thoughts about blog usage, ten open-ended questions were asked to participants. These questions are listed below.

1. What are the thoughts of participants about constructing blog page?
2. What are the thoughts of participants about their “own blog page”?
3. How are participants affected by publishing and sharing their own works on their blogs?
4. What are the problems that participants encountered while constructing their blogs?
5. What are the perceptions of the participants about writing comments to their own works?
6. What are the perceptions of the participants about writing comments to their friends’ works?
7. What are the thoughts of the participants whether they will plan to have their students prepare blog page in their teaching profession?
8. What are the most favored activities completed in the scope of the course by the participants?
9. What are the least favored activities completed in the scope of the course by the participants?
10. What are perceptions of the participants about the comparison of their improvement of computer and Internet usage skills before and after the course?

### **The procedure**

The course syllabus was planned and prepared regarding each activity would match one or more multiple intelligence type. The course schedule and plan can be seen in Table 1.

Table 1 Course plan with activities addressing all types of multiple intelligences

Activities	Multiple Intelligence Type	Application Program
Curriculum vitae	Linguistic, Visual/Spatial, Kinesthetic, Intrapersonal	MS Word
Puzzle	Logical, Visual/Spatial , Kinesthetic, Intrapersonal	MS Word
Brochure	Linguistic, Visual/Spatial, Kinesthetic, Intrapersonal	MS Word
Course Document	Linguistic, Visual/Spatial, Kinesthetic, Intrapersonal	MS Word

Self-improvement raph	Logical, Visual/Spatial, Kinesthetic, Intrapersonal	MS Excel
Scoring page	Logical, Visual/Spatial, Kinesthetic, Intrapersonal	MS Excel
Concept map	Visual/Spatial, Logical, Linguistic, Kinesthetic, Intrapersonal	MS PowerPoint
Story telling presentation	Linguistic, Visual/Spatial, Musical, Kinesthetic, Intrapersonal	MS PowerPoint
Documentary film	Naturalistic, Linguistic, Visual/Spatial, Musical, Interpersonal, Kinesthetic	Windows Movie Maker
Blog page	Linguistic, Visual/Spatial, Interpersonal, Kinesthetic, Intrapersonal	Blogspot.com

In order to prepare the activities, firstly, the advanced Internet search was taught and next, simple graphic editing was shown. Following that the site blogspot.com were introduced and students were required to get a domain name for their blog page for creating their own blogs. Moreover, how to upload files to their school server was also explained clearly.

After detail MS Word application description, students were asked to design a detailed “curriculum vitae” by means of curriculum vitae template from their computer or the site of Microsoft.com. After completion of each activity, students uploaded their works to the server and published them on their blog page, respectively. Additionally, students were told to post comments to their own works including their feelings, concerns or problems etc while completing activities, and also evaluate their performance in terms of points that each activity deserves. As a second activity, students prepared a criss-cross puzzle covering a specific subject of their field, with the help of puzzle maker from the site, discoveryeducation.com. After completion of puzzle, a place that students would choose or create would be introduced to people who are interested as a brochure. To summarize MS Word usage skills, a last activity were proposed as a Course Document that might cover a subject of their field including features like advanced use of styles and formatting, table of contents, text and picture alignment, readable font style and size. Following that a description of MS excel, a new activity was introduced to the students called Scoring Page including a list of 15 people's 2 midterm, 2 quiz and 1 final exam results and some calculations such as mean, standard deviation, minimum-maximum values. Then, concept map activity was completed after description of MS PowerPoint. As a second Ms PowerPoint activity, story telling presentation including well-known story with different endings or free story writing was designed and presented by the students. After this activity, a group performance was required for the creation of a documentary film covering any topic like global warming, its causes-effects, nature problems, sea, and weather pollution. As the last one, an excel activity was for the self improvement report included chances in computer and internet use skills from beginning of the course. At the end of the semester, when students had finished all the activities a questionnaire was administered to them in order to collect the data.

### **Data Analysis**

The quantitative data obtained through questionnaire were analyzed through descriptive methods such as frequency, percentage, means, and standard deviation. The qualitative data were analyzed by using content analysis method. First, data were coded inductively by two different researchers and controlled, and emerging themes were found. After that, data were coded again according to the new emerged themes, and finally, the results were interpreted (Yıldırım & Şimşek, 1999, p. 162-175).

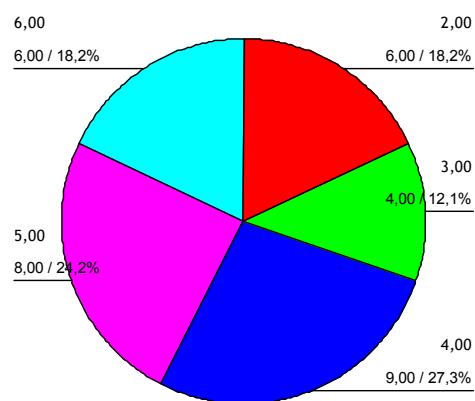
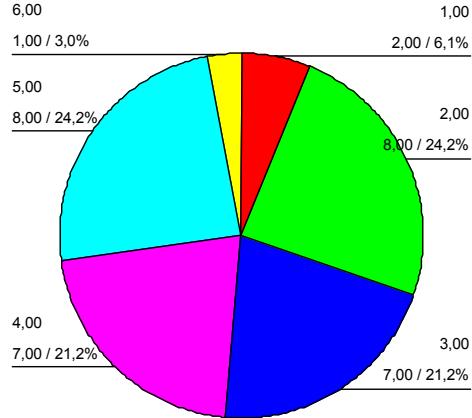
## **FINDINGS**

### **Quantitative Findings**

The results are presented below according to research questions specified previously.

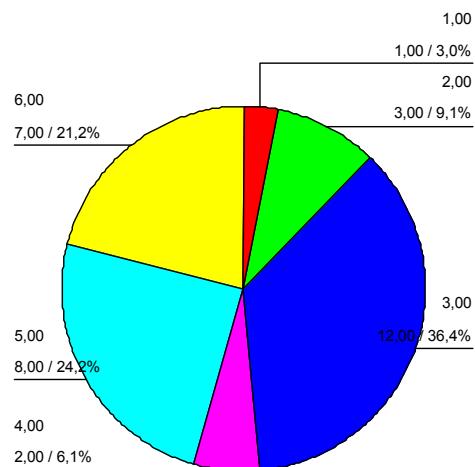
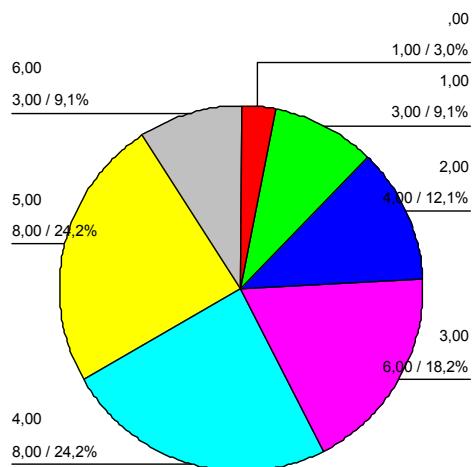
#### **Dominant intelligence types of the participants**

There were 6 items, which questioned the Linguistic – Word Smart Intelligence type of participants. Being marked four or more items meant that participants had the Linguistic - Word Smart type. As it is seen in figure 1, 9 participants (27, 3 %) marked four items, 8 participants (24,2 %) marked five and 6 participants (18,2 %) marked 6 items that meant that 23 (69,7 %) of the 33 participants had the Linguistic - Word Smart type.

**Figure 1 Linguistic – Word Smart****Figure 2 Logical – Number Smart**

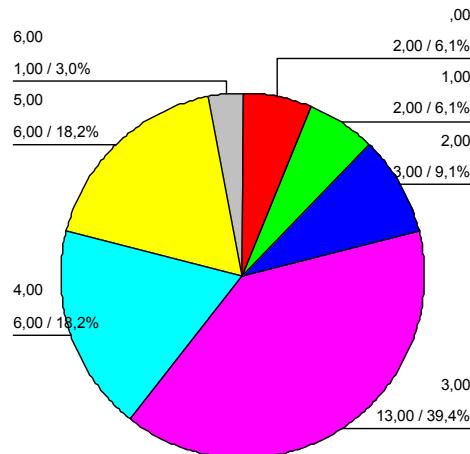
Same with previous intelligence type, there were 6 items questioning the Logical – Number Smart Intelligence type of participants. As it is seen in figure 2, 7 participants (21,2 %) marked four items, 8 participants (24,2 %) marked five and 1 participants (3,0 %) marked 6 items that meant that 16 (48,4 %) of the 33 participants had the Logical- Number Smart.

Of the six items addressing the intelligence type of Visual/Spatial – Picture Smart, 2 participants (6,1 %) marked four items, 8 participants (24,2 %) marked five and 7 participants (21,2 %) marked 6 items that meant 17 (51,5 %) of the 33 participants had the Visual/Spatial – Picture Smart intelligence type (Figure 3).

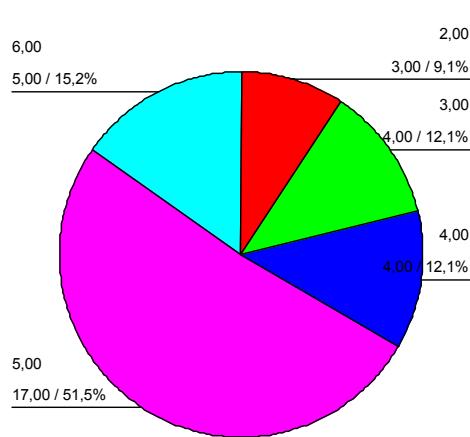
**Figure 3 Visual/Spatial – Picture Smart****Figure 4 Kinesthetic – Body Smart**

Among the six items questioning the intelligence type of Kinesthetic - Body Smart, 8 participants (24,2 %) hinted four items, 8 participants (24,2 %) hinted five and 3 participants (9,1 %) hinted 6 items that meant 19 (57,5 %) of the 33 participants had the Kinesthetic - Body Smart intelligence type (Figure 4).

As it is seen in figure 5, among the six items addressing the intelligence type of Musical – Music Smart, 6 participants (18,2 %) listed four items, 6 participants (18,2 %) listed five and 1 participant (3,0 %) listed 6 items that meant 13 (39,4 %) of the 33 participants had the Kinesthetic - Body Smart intelligence type.



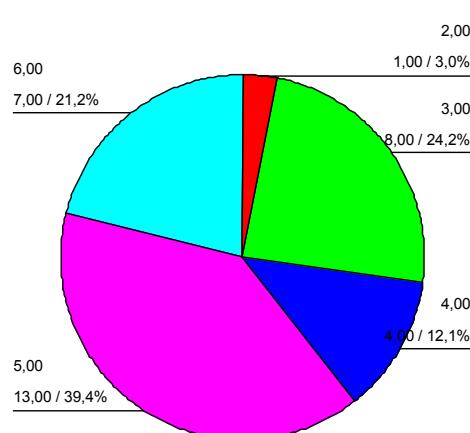
**Figure 5 Musical- Music Smart**



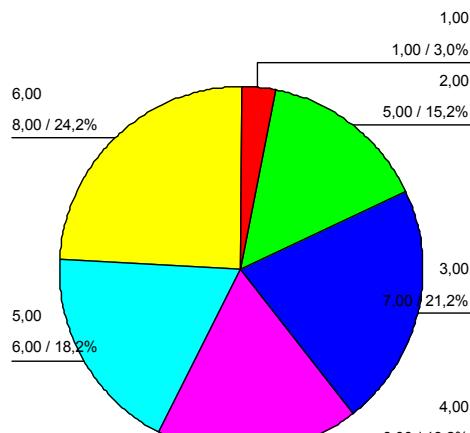
**Figure 6 Interpersonal – People Smart**

As a next intelligence type, Interpersonal – People Smart among the six items, 4 participants (12,1 %) marked four items, 17 participants (51,5 %) marked five and 5 participants (15,2 %) marked 6 items. These results revealed that 26 (78,8 %) of the 33 participants prefer to be interact people and has Interpersonal – People smart intelligence mostly (Figure 6).

Of the six items addressing the intelligence type of Intrapersonal - Myself Smart, 4 participants (12,1 %) marked four items, 13 participants (39,4 %) marked five and 7 participants (21,2 %) marked 6 items. These results showed that 24 (72,7 %) of the 33 participants love to deal with themselves and has the Intrapersonal – Myself Smart intelligence type (Figure 7).



**Figure 7 Intrapersonal – Myself Smart**



**Figure 8 Naturalistic – Nature Smart**

As a last intelligence type, Naturalistic - Nature Smart among the six items, 6 participants (18,2 %) ticked up four items, 6 participants (18,2 %) ticked up five and 8 participants (24,2 %) ticked up 6 items. These results

revealed that 20 (60,6 %) of the 33 participants processed nature and its events and has Naturalistic – Nature Smart intelligence type (Figure 8).

Generally speaking, intelligence types of the participants from most to least hinted respectively is shown in Table 2. It is obvious that 78,8 % of participants have Interpersonal – People Smart intelligence type. Following that 72,7 % of the participants enjoy to deal with themselves addressing Intrapersonal – Myself Smart intelligence type. Thirdly most checked off intelligence type by 69,7 % of the participants. In addition to this, Logical- Number Smart and Musical- Music Smart intelligence types were the least checked off types, 48,4 % of the participants marked Logical – Number Smart and 39,4 % of the participants marked Musical – Music Smart intelligence types.

Table 2 General View of the Intelligence Types

	Participants' Number	
	#	%
Interpersonal - People Smart	26	78,8
Intrapersonal - Myself Smart	24	72,7
Linguistic - Word Smart	23	69,7
Naturalistic - Nature Smart	20	60,6
Kinesthetic - Body Smart	19	57,5
Visual/Spatial - Picture Smart	17	51,5
Logical - Number Smart	16	48,4
Musical-Music Smart	13	39,4

### ***Qualitative Findings***

#### **The thoughts of participants about constructing blog page**

Firstly, participants were asked what they thought about constructing blog page. 23 of the participants thought that constructing blog page is interesting, useful, amusing, a different excitement and an easy experience. 9 of the participants favored constructing blog page because of opportunities of blog page that supports material share and interaction in that platform. Related to this idea, one participant stated “exploring others’ work provide us to exchange opinions about own materials’ deficiencies”. On the other hand, 8 of the participants expressed that they faced difficulties and thought that it was a hard work at the beginning of constructing blog page but some time later it got easy. Regarding this issue, one participant stated “firstly, it was too complicated and thought that there was no need to do but some time later, I had a great time; it was very useful activity for us”. Nevertheless, four participants explained that they felt happy for archiving his/her artifacts in a regular manner. Moreover, four participants were proud of publishing their artifacts and feelings in a private and distinctive place. Related to this, one participant said “I got pleasure for constructing blog page; yet more I participated in more than one blog page”.

#### **The thoughts of participants about their “own blog page”**

The second question asked to the participants was related to their own blog page. 29 of the participants liked their own blog page because they found their blog page beautiful, successful, arranged, coherent and attentive. Moreover, 5 participants were getting happy when they were looking at their own page. Related to this, one expressed “I like because I have prepared; sometimes, I open and look at my artifacts”. Another five participants thought that they prepared more colorful, visual supported and sound embedded blog page. Regarding this issue, one stated “my blog page is colorful and reflecting myself. It becomes more beautiful with the help of my friends’ comments”. 3 participants expressed their own blog page as a place where they archived all their artifacts. 2 participants told that they created a blog page that reflecting themselves. On other hand one expressed that constructing a blog page was a compelling study.

#### **The thoughts of participants about publishing and sharing their own works on their blogs**

With regard to the question how the participants are affected by publishing and sharing their own works on their blogs, 14 participants expressed that they were affected positively and thought that publishing and sharing their own work on their blogs were beneficial and beautiful. Regarding to this answer, one participant explained “I explored all my friends’ artifacts to explore how they completed some beautiful parts when something stuck in my mind, when I wanted to do something...in my opinion it is very useful activity”. One participant pointed out

that he/she showed ultimate attention whereas two participants stated that they became very excited. Related to this answer, one participant stated “having works to be shared with others excited me”. Moreover, 5 participants thought that this publishing and sharing situation facilitated socialization among them. While 2 participants found this activity extraordinary, 6 participants benefited from other works and were proud of their works because of being their works examples to others. In contrast to these, 2 participants expressed that publishing and sharing were not effective and another two participants stated that they do not want others to see their special things in the Web environment. Regarding to this answer, one stated “It was not effective. There might be some special things; I do not want others to see them”. Another said “the accessibility of my CV to everyone who searches my name in Google disturbed me”.

#### **The problems of participants encountered while constructing their blogs**

When the participants were asked about the problems that they encountered while constructing their blogs, 9 participants stated that they did not face any problems while constructing their blogs. Regarding this answer, one stated “I did not face any problems since I use computer and internet properly”. In contrast, 29 participants encountered some problems during the construction of the blog pages. Of 29 participants, 15 had trouble with uploading their artifacts to the server and 14 had difficulty in constructing their blogs in terms of information and technical context. One of the participants stated “I sometimes have difficulty in uploading files” and another said “ftp steps were complicated”. Some technical issues mentioned were being blocked of blog pages by the reason of not being approved the incoming mail from blog page service provider, forgetting the own blog page address and password, not able to modify the profile, and not able to create hyperlink of artifacts to be post in blog pages. Regarding this answer, one participant stated “the biggest problem I have faced in my blog page, is forgetting my password all the time. Except this, I don't have any difficulty”.

#### **The perceptions of the participants about writing comments to their own works**

Participants were asked about the perceptions about writing comments to their own works. 10 participants had difficulty to write comments to their works and thought that writing comments was difficult. 8 participants got happy and cheerful when they were writing comments. Regarding to this answer, one stated “I was assessed many times before but assessing myself is quite cheery”. While one thought that he/she felt as if he/she was praising himself/herself during writing process, other told his/her unwillingness for writing comments. Related to this answer, one stated “I do not want to assess myself, because, I like my artifacts but I hesitated as if I was praising myself”. Moreover, 11 participants took attention to be more objective when writing comments. 31 of the participants, 4 stated that was a different application whereas 6 participants expressed that they were writing comments easily. Regarding this answer, one told that “giving notes of humans to themselves is a different emotion. I do not know how objective it is, but I tried to be objective as much as I can”. Another said “when assessing myself, not only I considered good sides of me, but also I have mentioned my deficiencies”. Lastly, one participant told that he/she realized during the writing process that the hard parts of the works were not as such hard after he/she completed them.

#### **The perceptions of the participants about writing comments to their friends' works**

With regard to the question about the perceptions of the participants about writing comments to their friends' works, 10 participants expressed that they were found the activity amusing and effective. While 4 participants explained that they did not have any difficulty during writing process, 14 participants told that they tried to be careful not to lacerate others by writing any negative comments to their friends. Therefore, they particularly wrote comments to their friends having better artifacts. Regarding this answer one stated “I like both criticizing and being criticized. But, I avoided writing negative criticism in case they took offense. I wrote faults of my friends that they would not misunderstand me”. Another said “I congratulated my friends' activities and I posted my criticisms for deficiencies I saw by not making them take offense”. In contrast, 5 participants told that they tried to be objective and neutral when writing comments. Related to this response, one stated “We wrote our opinions clearly”. Another said “I tried to write my comments objectively by looking at their artifacts. I specified what I found as a deficiency of an artifact”. 3 participants benefited from others' comments, and realized their own deficiencies. One participant expressed that he/she felt himself/herself as if he/she was a teacher.

#### **The thoughts of the participants whether they will plan to have their students prepare blog page in their teaching profession**

With regard to the question whether the participants want to make their students prepare blog pages for their profession in the future, except 3 participants the rest of the participants expressed that they wanted to make their students prepare blog pages for different purposes.

Generally, the reasons for the usage indicated by the participants as follows with participants' number;

- For sharing artifacts and course notes (14)
- For being an effective, beneficial, and amusing activity (8)
- For tracking homework easily (6)
- For exploring students' deficiencies with comments (3)
- For improving computer use skills (3)
- For requiring search (1)
- For improving students (1)
- For recognizing students better (1)
- For being an ideal method to create creative and authentic artifacts (1)
- For allowing writing comments (1)

Under the light of the reasons above, one participant said, "I want everybody have a blog page. Thus, I can see given importance and care to the lesson by the students, and recognize them better". Another participant reflected his ideas as follows "I think. Because, with such a page, I can track their work better and they can complete their deficiencies by their friends' comments". Another participant said "yes, I will make my students prepare blog page. Because, by this way they can share their works with each other and I can also observe what they do easily".

The one of three participants, who did not prefer to use blog page in the future, put forward the fact that there is no need in their field, and other one said that "I don't want such a thing. Because I will be a secondary school teacher. But it might be of course if there are enough materials in the schools".

#### **The most favored activities completed in the scope of the course by the participants**

22 of the participants mostly favored the story activity, 11 of them favored the documentary film activity, 9 favored the concept map activity, 8 favored the brochure activity, 4 favored the puzzle activity, 1 mentioned the excel activity and 1 emphasized all activities completed in the scope of the course.

Participants pointed out the importance of the story activity for different reasons. The reasons indicated by the participants has different sides .They pointed out that this activity was different, amusing, entertaining, and beautiful (9), it is visual and colorful (5), it required more creativity (3), it required great care (1), it was easy (1), it was beneficial (1), the subject of the activity was chosen by students (1). Related to the reasons, one participant reflected his idea by stating "the presentation of story. It was different and amusing activity".

For the second favored activity, documentary film, participants gave some reasons such as: it was beautiful and cheerful (6), it is completed by a group (2), it has not been performed before (1), it was instructive (1), it required great care (1), I liked this task (1), it was visual (1), it was beautiful to explain something with music and frames (1). Thus one of the participants maintained that "documentary film was too comprehensive and I was very happy when completing it. To see that I can achieve something and work in a group was beautiful".

The factors emphasized by the participants for concept map activity are as follows: it was colorful (4), it was amusing (1), it was instructive (1), it was related with our field (1), it will be useful in the future (1), and it enabled to review information (1). For the concept map, one participant stated "preparing a story and concept map, in my opinion, was very entertaining. Especially, dealing with the coherence of colors and images was amusing".

For the fourth favored activity, brochure, reasons are as follows: the subject of the activity was chosen by students (3), it was amusing and entertaining (2), it enabled to learn something about some places (1), and it will be useful in the future (1). Regarding this activity, one stated "at most, I enjoyed when completing brochure. Because, I prepared a place of my hometown, Trabzon".

Next, participants favored the puzzle activity for the fact that it was amusing (3) and will be useful in the future (1). One participant liked the excel activity by the reason of repeating all the excel information and one participant favored all the activities as they were all instructive and colorful.

### **The least favored activities completed in the scope of the course by the participants**

When participants were asked their least favored activities completed in the scope of the course, 18 participants least favored excel activities, 7 least favored CV activity, 4 documentary film, 4 story, 3 brochure, 1 word activities and 3 participants did not have any least favored activity.

The reasons that caused them to dislike some kind activities may vary as follows with participant number. For the excel activities, participants put forward such facts: I don't like mathematics and calculations (6), it is a hard study (5), the formulations are difficult and complicated (4), it does not require creativity (1), and I don't like excel (1). In this respect, one said "excel homework. Because, I do not like to calculate. But absolutely it might be said that I have learned".

For the CV activity factors indicated by the participants are as below: It was boring (2), it was not amusing (1), I could not find any thing to write (1), it was not interested me (1), and I had a few computer use skill (1). Regarding this answer, one stated "preparing a CV was not amusing so that I have prepared it unwillingly".

The reasons given by participants to dislike documentary film activity are listed below: It as a tiring activity (1), it was hard (1), and time allowed to complete it was not appropriate (1). Related to this answer one participant stated "Documentary film. Because, it made us feel tired. I have started from the beginning again and again. I was unable to sleep 3 nights".

Four participants disliked the story activity because; one told that he/she could not use any visuals in the product. Another put forward the fact that it was boring to repeat the program and other expressed his dislike that it compelled. In this respect, one stated "rather than unwillingness, story applications compelled me".

Three participants who disliked the brochure activity gave these reasons: one told that he/she had difficulty while completing it, other expressed that it required much usage of style and formatting and lastly one participant put forward the fact that it was boring as well. Finally, one participant explained his/her dislike about word activities, since he/she thought that activities were the review of what he/she has known before.

### **The perceptions of the participants about the comparison of their improvement of computer and Internet usage skills before and after the course**

With regard to the last question posed to the participants about their perceptions about the comparison of their improvement of computer and internet usage skills before and after the course, it could be said that there happened some changes in their technology usage skills. 30 participants told that they have learned many things, their computer and internet usage skills became strong, and they have completed their deficiencies. Related to this answer, one said "absolutely, I can say that I have made great strides. I think that I have learned Word, Excel, PowerPoint and movie maker applications in detail. This is the most important part of the semester for me". In more detail, 3 participants realized that they developed their usage skills of excel, word, PowerPoint and movie maker and 2 participants told that they are more successful at creating effective presentations. Related to this answer, one told "in the past, I had created simple presentations, whereas now, I can create visual supported presentations that will attract attention of others". In word applications, 2 participants explained that they developed using styles and formatting options. Furthermore, 2 participants made a confession that they like computer and internet eventually. In this perspective, one stated "my situation before and after the lesson is that I like computer and I achieve in some degree. In the past, I did not even know to look at images option of the Google while searching images". And other three expressed that they were even helping their friends about using computer and internet. In this respect, one said "I have not known much more about computer except MSN. Now, think that I have completed many things that my friend from the department of computer teaching even did not perform them, I helped them. Actually, I prided myself".

### **CONCLUSION AND DISCUSSION**

This study was conducted to investigate the usage of blogs in educational settings from multiple intelligences perspective. For this purpose, both qualitative and quantitative measures were used to gather and analyze the data.

The findings of this study revealed that most of the participants' approximately 79%, dominant intelligence type was "interpersonal". The following two other intelligence types for this group were "intrapersonal" and "linguistics". Since the group was composed of the students of Department of Turkish Education, it is not surprising that approximately 70% of the participants have "linguistics" as dominant intelligence type.

Although most of the participants have some difficulties due to the technical problems, creating and managing their own blog page was favored by all of the participants. This activity was addressing interpersonal, intrapersonal and linguistics intelligence types, which were also the top three leading intelligence types of the group, besides visual/spatial and kinesthetic. So, satisfaction of participants may be obliged to their types of leading intelligences.

The group was positive, in general, toward publishing and sharing their own works through their blog pages with others. In parallel with study carried out by Williams and Jacobs (2004), students found to be in favour of the use of blogs throughout the semester as a technological support to teaching and learning activities. Birney, Barry & Ó hÉigearthaigh (2006) also stated students' positive feedback by concluding that: "they [students] readily engaged with the new technology and were enthusiastic about its use" (p. 1051). Thus, positive feedback taken from the students seems to indicate that assignments carried through blog usage can be an innovative and important tool for improving writing abilities of students (Lee, 2005).

Although self-evaluation was a new phenomenon for the participants, the results showed that they really benefited from this experience in different ways. In a similar way, writing comments to their friends' works was also found to be useful and motivating. Hence, their choice for future usage of blogs was heavily based on the idea of "sharing". Similar results also disclosed by Ellison and Wu (2008). Their study indicated that the students enjoyed the aspects of the blogging – interactive features of the medium, reading others' ideas and getting feedback. Another study conducted by Wang and Hsu (2007) also revealed that "Pre-service teachers enjoyed exchanging different perspectives on the blog, and considered blogging as an extra channel to allow them express different views or extend the in-class discussion. Writing to a public increases participants' discreetness when they post on the blog" (p. 2488).

Among the activities, preparing a story telling presentation was the most favored activity, which is preferred as approximately 68% of the participants. The reason may be that story telling activity was addressing linguistics type of intelligence primarily, whereas visual/spatial, musical, kinesthetic and intrapersonal types of intelligence also. As also stated by Huffaker (2005), blogs provide a chance to educators for improving students' literacy skills through storytelling and dialogue, since "Telling stories remains important from childhood to adulthood because stories allow people to express experiences and feelings in an engaging way, help them to understand the world around them, and develop and sustain peer relationships" (p. 96).

When the top three favored activities, namely story telling, documentary film and concept map, are investigated, their common points are they are addressing at least five types of intelligence. Addressing several types of intelligence can be explained with the richness of the activity. On the other hand, activities addressing logical type of intelligence primarily are found to be least favored by the participants.

Almost all of the participants have declared that their computer and Internet usage skills have improved and they have completed their deficiencies after this course. This satisfactory finding shows that carrying out course work through technological means, for this study blogs, which permits sharing of one's own work with others, can be used as a supplement to the course. Use of blogs and sharing products and ideas through this medium, not only motivate and attract learners, but also provide them a real-life situation to improve their technological competencies. Moreover, learners experienced online collaboration, self-evaluation and peer-evaluation with this approach. Thus, besides cognitive knowledge and skills, learners gained affective means, such as ethical considerations.

Major finding for this study is that activities addressing several intelligence types, which are appropriate for the group, are preferred mostly for this case. Thus, since improvement of intelligence types is hard for adults, it is important for instructors to design activities from multiple intelligences perspective which may effect the achievement of the group.

Through blogs or other technological tools, instructors should plan activities which address many types of intelligences at once, in order to reach more students and teach more effectively. On the other hand, usage of blogs for designing activities addressing several types of intelligence should be investigated for learners of different subject fields for varying content.

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