FACILITATORS' PERCEPTION OF INTERACTIONS IN AN ONLINE LEARNING PROGRAM

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ABSTRACT

Schools and colleges all around the world have started making use of advanced technology to provide learners effective, efficient and adequate instruction. The use of Internet and Web for learning and teaching has caused many online courses to be offered when teaching-learning activities are required for both students and faculty.

The Internet has shown a rapid and important growth in the extent of online education. This has created a new paradigm for teaching and learning that is different from the traditional classroom experience and also different from earlier technology-based attempts (Kearsley, 1998).

One of the most important online course components has proven to be interaction, especially learner to learner interaction.

Alexander C. lists the top ten ranking components of an optimal online environment, giving peer interaction the first place. Kearsley (1998) also states that discussions among learners are among the most important components.

This is not surprising because one of the most important factors in learning appears to be interaction among learners and interaction between instructor and learners. No matter how learning takes place, interaction has always been of great importance so that an effective learning can occur.

Especially when instruction is given to learners learning at a distance, this interaction component is of vital importance. Having the lack of social interaction, learners may feel alone and helpless at times they need to get help from someone, especially from their peers taking same course as in any traditional classrooms. Studies suggest that facilitators' active interactions with students have significant effects on the quality of online distance learning (Thomas, Caswell, Price & Petre, 1998).

Keywords: **Online; interaction; facilitation.**

BACKGROUND

Research literature on interaction or interactivity has highlighted the importance of interaction between learners and instructors a great deal so far. According to Moore (1989) an effective online class should have three types of interaction:

Learner-content, learner-instructor and learner-learner. Each type of interaction plays a role in the entire educational process. Another interaction type that some researchers imply is that the interface interaction.

Interface refers to how the learner uses the computer interface to access and participate in instruction and communicate with instructors and other learners. Effective learner-interface interaction allows the learner to focus on learning and communication rather than how to access instructional content and communicate with others (Lohr, 2000).

One of the vital elements in any learning system so that interaction can take place is the support that programs offer to both students and instructors. Student support has been defined in variety of ways in the distance education literature.

Simpson (2002) defines support as "all activities beyond the production and delivery of course materials that assist in the process of students in their studies." According to Carnwell & Harrington (2001) support can be defined with its components:

Activities that enables students to progress satisfactorily, strategies such as cognitive, affective, meta-cognitive and motivational, and finally skills such as informing, advising, counseling, assessing, enabling and feeding back. Interaction is of most importance especially when learners and instructors/facilitators are separated by time and space.

In any distance learning setting, including online learning, extra consideration is given to interaction so that learning will be as efficient and effective as face-to-face learning.

Some say, with the help of instructional technology, interaction taking place in an online learning environment could even be better than it is in a traditional setting. This of course depends on whether the programs have well designed interaction mechanisms in their activities.

Information Management (IM) Associated Degree Program of Anadolu University is the first completely online undergraduate level program in Turkey. It started in October 2001 and gave its first graduates in June 2003.

The program aims to help students gain the necessary skills to use required business software effectively and efficiently, acquire the concepts and experience of the Information Management in business, attain the collaborative working experience and institutional communication on the Internet environment, and get hold of necessary experience for the enterprise and management of the Internet environment.

The program offers various types of interaction via different technologies. Synchronous and asynchronous online tools such as listserv, email and chat enable students to interact with each other, instructors, and facilitators.

This support is provided and directed by the "Academic Advisors", or facilitators. There are 55 facilitators primarily for providing instructional support to the students.

Each facilitator is considered as an expert in one course content. For each course there are 5-10 facilitators. These facilitators mainly provide guidance to the students when they are working on their assignments, answer their questions regarding the assignments and the topics, assess the assignment and inform the students and the course coordinators of the results, try to solve their organizational and/or technical problems, direct the students to the related support service and inform the service representatives about the students' problems, and have social interaction with the students.

In order for better interaction can take place in the program, it is important to know how facilitators and learners think about the interaction. Learner mails to the program and requests have shown that students are satisfied to some degree about the support provided.

On the other hand, it is as much important to know how facilitators perceive supported interaction facilities so that it can be more efficient and effective. Studies on those attempts have shown that facilitators' active interactions with students have significant effects on the quality of online distance learning (Thomas, Caswell, Price & Petre, 1998).

This paper reveals the results of a study that examined the facilitators' perceptions on interaction (learner to learner, to facilitators, to content, and to interface as well as facilitators to learners, to facilitators, to content, and to interface) during an online course called Information Management Associate Degree Program at Anadolu University.

THE PURPOSE AND RESEARCH QUESTIONS

The main purpose of this study is to reveal the facilitators' satisfaction from interaction provided to the learners during the implementation of the Information Management Associate Degree Program of Anadolu University. The research questions of the study have been formulated as:

- **Are the facilitators overall satisfied with the interaction taking place in the program?**
- **Do the facilitators' characteristics (gender, computer experience, and teaching experience) have any effect on their satisfaction?**
- **Is there any difference between how facilitators perceive their own interaction (with learners, facilitators, content, and interface) and learners' interaction (with learners, content, facilitators, and interface)?**

METHODOLOGY

A survey in this study has been selected as the data collection method to seek input from the facilitators. The survey instrument included 24 items related to learner, facilitator, content, and interface interaction.

Three items for each interaction type examined the facilitators' levels of agreement on the interaction taking place. The items listed in Table 1. Table 2, on the other hand, shows the design of the study.

Table: 1
Items used to assess the facilitators' satisfaction levels for the interaction

	Items
1	**Learners' communication with us (facilitators) was satisfactory. *(Learner to Facilitator)***
2	**Learners did not hesitate to ask questions to us. *(Learner to Facilitator)***
3	**Learners communicated to us almost on any subject. *(Learner to Facilitator)***
4	**As a facilitator I did not hesitate communicating to the learners. *(Facilitator to Learner)***
5	**As a facilitator, I encouraged learners to ask questions. *(Facilitator to Learner)***
6	**As a facilitator my communication to learners was satisfactory. *(Facilitator to Learner)***
7	**Interaction among learners was satisfactory. *(Learner to Learner)***
8	**Learners did not hesitate to interact with each other on problems they encountered. *(Learner to Learner)***
9	**Learners interacted to each other on many other subjects other than content and assignments. *(Learner to Learner)***
10	**When I had a problem I got help from another facilitator. *(Facilitator to Facilitator)***
11	**As a facilitator, I interacted to other facilitators on many other issues other than program content and assignments. *(Facilitator to Facilitator)***
12	**As facilitators our interaction among ourselves was satisfactory. *(Facilitator to Facilitator)***
13	**Content was designed to require active learner participation. *(Learner to Content)***
14	**Materials provided to learners with clear directions and feedback. *(Learner to Content)***
15	**Learner activities were suitable to the presented content. *(Learner to Content)***
16	**Learners did not have difficulty as they surf web sites or watch videos. *(Learner to Interface)***
17	**Materials (Web sites, Videos in Cds, Textbooks) presented to learners had a supportive and appealing design. *(Learner to Interface)***
18	**Learners reached to any content, activity or tool easily. *(Learner to Interface)***
19	**Content was designed to support active facilitator participation. *(Facilitator to Content)***
20	**I got enough direction and help from materials when I needed. *(Facilitator to Content)***
21	**Facilitator responsibilities were suitable to the presented content. *(Facilitator to Content)***
22	**I did not have any difficulty as I surf the web or watch videos. *(Facilitator to Interface)***
23	**Materials (Web sites, Videos in Cds, Textbooks) had a supportive and appealing design for me. *(Facilitator to Interface)***
24	**I reached to any content, activity or tool easily. *(Facilitator to Interface)***

Table: 2
Design of the Study

	Interaction Type			
Groups	***Facilitators***	***Learners***	***Content***	***Interface***
Learners	**Items 1,2,3**	**Items 7,8,9**	**Items 13,14,15**	**Items 16, 17, 18**
Facilitators	**Items 10, 11, 12**	**Items 4, 5, 6**	**Items 19, 20, 21**	**Items 22, 23, 24**

The survey instrument was designed as a 5-point Likert-scale ranging from 1=strongly disagree to 5=strongly agree. The 3.41 mean score identified as the expected level of satisfaction with the item while other responses enables the facilitators to show higher or lower levels of satisfaction. The 3.41 mean average was determined after identifying the critical level: 4 intervals/5 categories = 0.8.

The 55 facilitators have taken part in the study. Almost all of these facilitators were graduate assistants at varying colleges of Anadolu University. A big majority of these facilitators (45.5%) were majoring in the science fields like computer engineering, physic, and mathematics. Others were in the social sciences.

Only 8 (14.5%) of them were in the education field and 1 facilitator was in medical sciences. Of the facilitators 11 (20%) were female (Table 3) and most of them (49%) were between 25-29 years old. Besides, majority of the participant facilitators (78.2%) have reported that they had good and professional levels of computer experience while 12 (21.8 percent) indicated they had intermediate level experience (Table 4).

Moreover, only 13 (23. 6 percent) of the participants indicated that they were experienced in teaching prior the program, while majority (58.2%) of them had prior experience by assisting someone else either short term or for a whole semester (Table 5).

The study was conducted at the end of the spring 2003 semester (in June 2003). After distributing the paper-pencil version of the instrument to the facilitators, the researchers allowed them to return in a week. All facilitators responded the survey in the allocated time limit except three. Those late three were given extra time and their data collected later on.

Table: 3
Gender

Gender	Frequency	Percent
Male	**44**	**80.0**
Female	**11**	**20.0**
TOTAL	***55***	***100***

Table: 4
The facilitators' computer experience prior the program

Computer Experience	Frequency	Percent
Intermediate	12	21.8
Good	25	45.5
Professional	18	32.7
TOTAL	*55*	*100*

Table: 5
The facilitators' teaching experience prior the program

Teaching Experience	Frequency	Percent
No experience	6	10.9
Short term assistance to a course	9	16.4
Assisting for a whole semester	23	41.8
Just began to teach	4	7.3
Experienced	13	23.6
TOTAL	*55*	*100*

The mean scores, standard deviations, t-tests and ANOVA analyses were used to interpret the data gathered via the survey instrument. According to Cronbach's Alpha analysis, the reliability of instrument was overall found as 0.8769.

RESULTS AND DISCUSSIONS

Are the facilitators overall satisfied with the interaction taking place in the program?
The first research question was about what the participant facilitators' satisfaction with the overall interaction taking place in the program. Table 6 demonstrates overall mean score of the facilitators' responses to each item.

According to the findings, facilitators are satisfied with the interaction taking place in each group overall except the learner to facilitator interaction. The scored for this type of interaction below the expected level of satisfaction ($M=3.23 < M_{els} =3.41$). From this finding, it can be said that facilitators do not think that learners in the online learning program do not interact to the facilitators as effective and efficient as they expect. On the other hand, facilitators think that they communicate effective and efficient enough to the learners ($M=4.04 > M=3.41$). The reason for this may be the learners' unawareness of the requirements of an online program and also their traditional learning habits that they usually expect from instructors preferring to remain passive.

It is interesting to note that facilitators think that learners better interact among themselves comparing to facilitators interaction among themselves (M=3.75 < M =3.46). While they perceive their interaction with learners satisfactory, they feel their interaction with other facilitators is not that much satisfactory. They also think that their interaction with both content and interface (M=3.94 and M=4.27) are more satisfactory than that of the learners' (M=3.76 and M=3.88). Again this may be because of the learners' lack of experience in the online environments.

Table: 6
Mean and standard deviation scores of interaction types

Interaction	N	M	SD
Learner to Facilitator	55	3.23	1.06
Facilitator to Learner	55	4.04	.69
Learner to Learner	55	3.75	.71
Facilitator to Facilitator	55	3.46	.85
Learner to Content	55	3.76	.68
Learner to Interface	55	3.88	.58
Facilitator to Content	55	3.94	.59
Facilitator to Interface	55	4.27	.55

Do the facilitators' characteristics (gender, computer experience, and teaching experience) have any effect on their satisfaction?

The second question of the study examined the *differences* occur in the facilitators' overall satisfaction score for any of the interaction types due to *their characteristics* such as gender, computer and teaching experiences.

An independent sample t-test analysis has been conducted to see of *gender* makes any difference in the facilitators' satisfaction. The results of the analysis summarized in Table 7.

According to the results, the female facilitators scored higher than male counterparts overall. However, only in "*learner to content*" (t=2.195, df=53, p=.03) and "*facilitator to content*" (t=2.406, df=53, p=.02) interaction type the difference was significant.

The female facilitators (M_f=4.15) found the "learner to content" interaction more satisfactory than the males (M=3.67).

Also, they found "facilitator to content" interaction more satisfactory (M=4.30) than male facilitators (M=3.85). For other interaction types the differences between females and males were not significant.

Table: 7
t-test results for gender effect

Support	Gender	N	M	SD	Df	Sig. (2-Tailed)
Learner to Facilitator	Female	11	3.70	1.07	53	.104
	Male	44	3.11	1.04		
Facilitator to Learner	Female	11	4.12	.72	53	.651
	Male	44	4.02	.69		
Learner to Learner	Female	11	4.00	.78	53	.189
	Male	44	3.68	.69		
Facilitator to Facilitator	Female	11	3.67	.56	53	.371
	Male	44	3.41	.90		
Learner to Content	*Female*	*11*	*4.15*	*.67*	*53*	*.03**
	Male	*44*	*3.67*	*.65*		
Learner to Interface	Female	11	4.12	.81	53	.124
	Male	44	3.82	.51		
Facilitator to Content	Female	11	4.30	.69	53	.02*
	Male	44	3.85	.53		
Facilitator to Interface	*Female*	*11*	*4.30*	*.72*	*53*	*.809*
	Male	*44*	*4.26*	*.51*		

In addition, a series of one-way between-groups analyses of variance (ANOVA) were performed to observe if the overall satisfaction level of the facilitators differ according to their computer and teaching experiences. There was no significant effect of the computer and teaching experiences on the overall satisfaction levels of the facilitators.

Is there any difference between how facilitators perceive their own interaction with learners, other facilitators, content, and interface and how learners' interaction with learners, content, facilitators, and interface?

Findings were also analyzed to see if there is a difference between facilitators' perception of satisfaction between themselves and learners' interactions on any of the types. Content, interface and in-group interaction variables were analyzed to see whether facilitators perceive the interaction in these differently. For this, paired sample t-test was conducted. Table 8 shows the results.

According to the results, there is a significant difference between facilitators' perception of interaction with the learners among themselves and learners with facilitators (p=.005).

Facilitators believe that they better interact with learners (M=4.04) than their peers (M=3.75). Also, there is a significant difference between facilitators' perception of interaction between themselves and learners on the content (p=007). They believe that facilitators' interaction with the content is more satisfactory (M=3.94) than the learners' (M=3.76). Another significant difference between learners and facilitators is that the facilitators' perception of interaction with interface (p=.001). They think, they better interact with the interface (M=4.27) than the learners (M=3.88). The last paired t-test analysis was conducted to see whether facilitators perceive their own interaction better or more satisfactory than the learners with other learners. The difference was significant (p=.040). But contrary of the other types, Facilitators perceive their own interactions less satisfactory (M=3.46) than those of learners (M=3.75). Although this finding may seem surprising, it should be noted that the facilitators need less help and guidance among themselves and thus communicate less comparing to the learners.

Table: 8
Paired sample t-test results for interaction pairs effect

Pairs	N	M	SD	Df	Sig. (2-Tailed)
Learner to Learner	55	3.75	.71	54	.005*
Facilitator to Learner		4.04	.69	54	
Learner to Content	55	3.76	.68	54	.007*
Facilitator to Content		3.94	.59	54	
Learner to Interface	55	3.88	.58	54	.001*
Facilitator to Interface		4.27	.55	54	
Learner to Learner	55	3.75	.71	54	.040*
Facilitator to Facilitator		3.46	.85	54	

CONCLUSIONS

This descriptive study reveals that the facilitators in the Information Management (IM) Program of Anadolu University are satisfied with the interaction taking place in the program overall. However, findings reveal that facilitators do not seem to be satisfied with the learner-facilitator interaction. While they scored higher on the "learner to learner interaction" items and believed that learners better interacted with each other, they did not believe that the same applied to learners' interaction with facilitators themselves.

This implies the possibility that the learners might be getting better support from their peers. Also, it might be inferred that the learner-facilitator interaction mechanisms may be in need of slight revisions.

According to the findings, there are significant differences on some points between female and male facilitators. Females perceived the interaction with content more satisfactory than males. This might be caused by females' preferences on content related issues rather than technology related issues.

When interaction types were paired, facilitators generally felt that they did better than learners in terms of communication. Computer and teaching experience did not have any significant differences on facilitators' perception of interaction in any types.

The results of this study can be more interesting when compared to students' perception of interactions on the same or similar issues.

Further research on the qualitative sides of the issue may reveal deeper perspectives on the interaction. There is no doubt that such research studies will provide better interaction and support facilities to the IM Program of Anadolu University.

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