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ROUGH WAY FOR ACADEMICS: Distance Education

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ABSTRACT

This study aims to compare the academics' perceptions about face to face and distance education, beside finding out the contributions of distance education to them, difficulties they experience in synchronous and asynchronous distance education environments and suggestions for possible solutions of the existing problems.

The sample consists of 52 instructors providing distance education courses actively at 7 universities in Turkey, in 2009-2010 academic year. As data collection tool, a survey called "Lecturer Opinion About Distance Learning and Face to Face Education Comparison" is utilized. In the analysis of the data, content analysis, frequency distribution, independent and paired samples T tests and pearson correlation were used.

Keywords: distance learning, instructor, education, distance education

INTRODUCTION

The most basic feature that distinguishes humans from other species is the power of learning. Therefore, humans learn in a systematic manner through their lives. Education systems in which human is the basic element, have developed for years with the help of different methods and approaches.

Technological innovations and developments, which continuously affect the educational environments, have improved the previous ones in each time and also brought about occurrence of new concept and techniques.

In the last decade, the rapid growth of technology, especially Internet technologies, have led to the opportunity of doing most of the face to face educational activities in the virtual environment.

Distance learning, one of the virtual environments, has eliminated the time and place dependence for the individuals and appealed learning style of each individual.

The concept of "Distance Education" or "Distance Learning"; includes the use of the Internet and web-based materials, interactive television, computer conferencing, and multimedia modules (Barker and Hall, 1994).

In Distance Education, delivery types are classified as asynchronous and synchronous. Asynchronous distance education is an alternative model of learning where students and teacher aren't able to be in the face to face interaction and be located in the same

environment at the same time (Carswell, 2002). Synchronous distance education connects students and instructors via real-time communication.

As a director, guide and organizator, teacher is one of the crucial parameters in a face to face educational environment, so it is in the distance education environment. Distance education is a structured procedure including the need of preparing contents, assignments, lecture notes etc. In such a structured environment, teacher is of vital importance.

LITERATURE REVIEW

In recent years, several studies focused on the instructors in distance education, have been conducted. One of them, Mills and his colleagues' (2009), a qualitative study applied at a college of education at a public regional university in south Texas, to determine faculty's perceptions of value and viability of distance education.

The results of the study indicate that faculty members studied do not uniformly recognize or embrace the use of distance education. In Murphy and Rodriguez (2009)'s study on the other hand, teachers' perspectives on learner centredness in a distance learning context are examined. In their study, 42 Canadian high school teachers' perspectives are analysed.

Results of the study highlighted that asynchronous nature of distance learning provide the teacher with a flexible pace, respect to individual needs, catering to different learning styles, allowing diversity in assessment, one-on-one attention, support and personalised attention

Using comparative analysis methodology supported by an appropriate conceptual framework, Menchaca and Bekele (2008) tried to find out how the tools used by the instructors affect the learning environment and how the programmatic success is provided.

Their study shows the availability of multiple tools, added flexibility to the learning environment; technological tools should appeal to multiple learning styles; collaboration, reflection, and building a learning community are important strategies supported by multiple tools; while, participant satisfaction, appropriate prerequisite skills, and faculty and administrative involvement ensured programmatic success.

Other than the faculty's perceptions about distance education, tools used in the learning environment and programmatic success of the learning process; faculty's interaction with their students are also studied.

In their study called, "Teacher-Student Interactions in Distance Learning", Terzi and Celik (2005) studied the importance of teacher-student interaction on knowledge and aptitude improvement by distance learning in isolated environments, especially for university students.

Results of the study, comparison of student related data between teacher-related data represents integrative approach that helps clarifying the complex interrelationships between person, process, and product variables in a distance learning environment.

With its aim of comparing the Instructors' opinions about face to face and distance education environments in terms of their preparation for the class, the materials they use, professional and wage satisfaction, beside finding out the contributions of distance education to them, difficulties they experience in synchronous and asynchronous distance education environments and suggestions for possible solutions of the existing problems. This study will contribute to the related literature.

METHOD

Research Model

In the analysis of the data gathered from open-ended questions' answers, content analysis, a qualitative approach model was used. Other than this indepth analysis method, frequency distribution, independent and paired samples T tests and pearson correlation were used in the analysis of the data gathered from the closed-ended questions' answers.

Data Collection Tool

As data collection tool, a survey called "Lecturer Opinion About Distance Learning and Face to Face Education Comparison" is utilized. During the development process of this instrument, related literature was scanned. The draft of the survey was reviewed by five instructors teaching in a distance education environment, in terms of convenience and availability. Proof reading on the other hand, was made by a field specialist and three academics interested in distance education. After having the necessary feedback, the last version of the survey was made. It included 22-item questionnaire assessing the difficulties and advantages of distance and traditional education for the Instructor.

Open and closed ended items were designed to compare distance education and face to face education.

Participants

Attached to an official petition, surveys were sent to all of the universities' distance education centers in Turkey. In the allotted time, just 52 instructors from 7 universities providing distance education courses responded. Number of participants from each university has been shown in Table 1.

Table: 1
Number of Participants
from Each University

Name of University	Count of Participants
Bahcesehir University	7
Karabuk University	4
Trakya University	4
Usak University	5
Atılım University	4
Yesevi University	15
Beykent University	13
Total	52

FINDINGS

1. Findings About the Demographic Characteristics of the Participants

Demographic characteristics of participants in the statistical data in the study are shown in Table 2 and Figure 1.

Table: 2
Age of Participants

	N	Minimum	Maximum	Mean	Std. Deviation
Age of Participants	**52**	**24,00**	**67,00**	**40,1154**	**11,93718**

In Table 2, there are minimum, maximum and avarege of participants' ages. According to the table average of participant's age is 40.

The distribution of 52 participants' academic titles are shown in Figure 1.

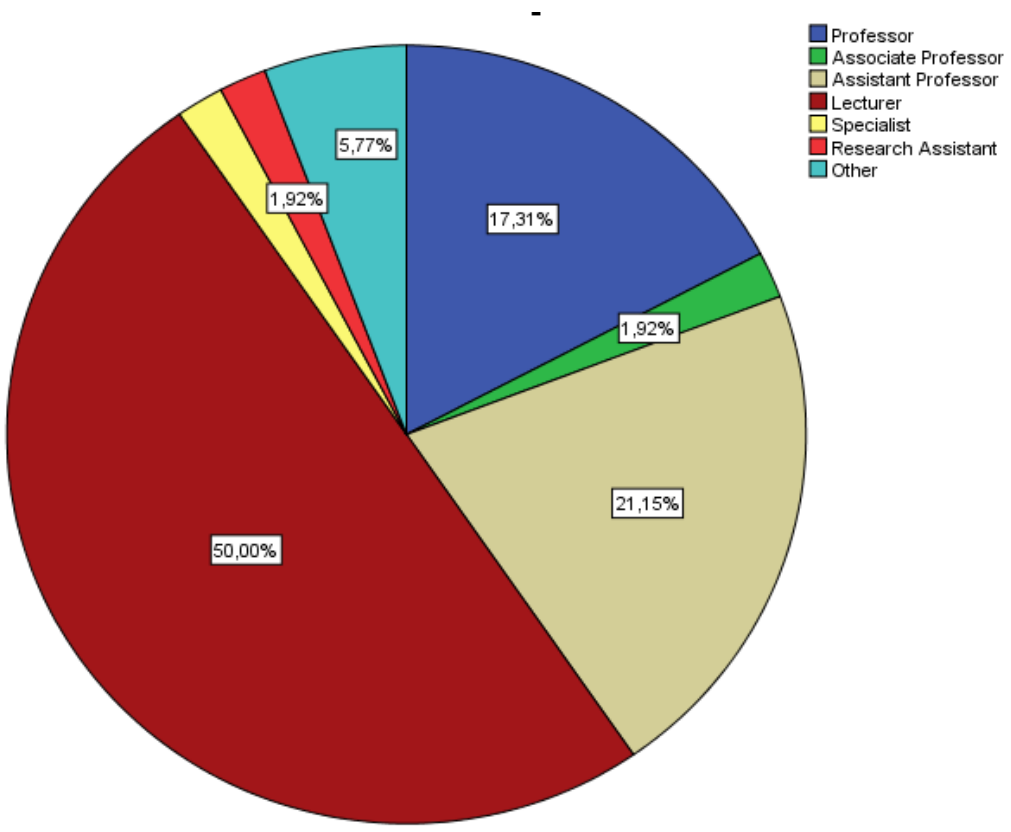

Figure:

1 Academic title of participants

According to the chart; the distribution of the participants' academic titles are as follows: 50% are university lecturer, 21, 5% are assistant professor, 17,31 % are professor, 1,92 % are research assistant, 1,92 % are expert, 1,92% are associate professor and 5,77 % are other. This helps us to realize why the average of the participants' ages is 40.

2. Findings About the Materials' Use of Frequencies by Teachers in Distance Education

The comparison between the frequencies of face to face and distance education teachers' use of the materials like PDF, photos, Word document, PPT file, Java Applet, Flash Animation and video are made, as can be seen in Table 3.

Table: 3
The Materials' Use of Frequencies by Teachers in Distance Education

Frequency of Using Metarials in Distance Education	PDF		WORD		PPT		JAVA APPLET		PHOTOS		FLASH		VIDEO	
	f	%	f	%	f	%	f	%	f	%	f	%	f	%
Every week	15	31,9	25	51,0	31	60,8	-	-	25	53,2	12	26,1	6	13,0
Fortnightly	4	8,5	3	6,1	5	9,8	1	2,2	7	14,9	2	4,3	2	4,3
Once every 3 week	3	6,4	2	4,1	2	3,9	1	2,2	1	2,1	2	4,3	3	6,5
Once a month	5	10,6	4	8,2	1	2,0	2	4,4	1	2,1	2	4,3	3	6,5
Once a Semester	2	4,3	1	2,0	2	3,9	5	11,1	47	27,7	5	10,9	5	10,9
Any	18	38,3	14	28,6	10	19,6	36	80	13	27,7	23	50	27	58,7
Total	47	100	49	100	51	100	45	100	13	100	46	100	46	100

According to above Table 3, high percentages of instructors tend to use word documents, ppt files, photos and pictures as a material in distance learning (51%, 60.8%, and 53.2% respectively).

Besides, most of them do not often use materials such as java applets and videos (80% and 58.7% respectively) which are very useful and popular materials in distance learning in developed countries.

3. Findings About the Comparison of the Face to Face and Distance Education Teachers' Lesson Preparation Periods for a Three Hour-Lesson

Table: 4
Pearson's Correlation between The Lesson Preparation Time in Distance Learning and in Face-to-face Learning

	The Lesson Preparation Time in Distance Learning	The Lesson Preparation Time in Face-to-face Learning
The Lesson Preparation Time in Distance Learning	$\bar{X}$ = 4,5729 SD = 3,58334 N = 47	r=0 ,743
The Lesson Preparation Time in Face-to-face Learning	P= .000	$\bar{X}$ = 2,8021 SD = 2,97282 N = 47

As it is shown in Table 4, "The Lesson Preparation Time in Distance Learning" is positively related to t "The Lesson Preparation Time in Face-to-face Learning" with a coefficient of r = .743 which is statistically significant (r =0 .743, p <0.05). This correlation value shows that there is a strong correlation between two variables.

It could be also seen that the lesson preparation time of instructors in distance learning is about 2 times longer than the ones' in face-to-face learning.

4. Findings About the Comparison of the Face to Face and Distance Education Teachers' Wage Satisfaction

Table: 5
Paired Samples T Test Results of Wage Satisfaction Rate between Distance Learning and Face-to-face Learning

	Groups	N	$\overline{X}$	SD	$SS_{\overline{X}}$	Paired Samples T Test		
						t	df	p
Wage Satisfaction Rate	Distance Learning	49	4,4694	2,79212	,39887	-1,600	48	,116
	Face-to-face Learning	49	5,1429	2,33631	,33376			

Table 5 shows that there is a difference between the levels of wage satisfaction of instructors in distance learning and face-to-face learning. However the paired samples t test results, applied in order to determine if this difference is statistically significant, show that there is no significant difference between two groups. It can be concluded that level of instructors' wage satisfactions, are not different in distance learning and face-to-face learning (t = -1.60, p>0.05).

5. Findings About the Comparison of the Face to Face and Distance Education Teachers' Professional Satisfaction

Table: 6
Paired Samples T Test Results of Professional Satisfaction Rate between Distance Learning and Face-to-face Learning

	Groups	N	$\overline{X}$	SD	$SS_{\overline{X}}$	Paired Samples T Test		
						t	df	p
Professional Satisfaction Rate	Distance Learning	49	6,8125	2,78794	,40240	-2,66	47	,010
	Face-to-face Learning	49	7,9167	1,63516	,23602			

Table 6 shows that there is a difference between levels of professional satisfaction of instructors in distance learning and face-to-face learning.

Besides, the paired samples t test applied to determine if this difference is statistically significant, show that there is a significant difference between two groups.

It means that level of professional satisfaction of instructors in face-to-face learning is greater than the ones' in distance learning (t= -2.66, p<0.05). It can be also concluded that instructors keen on giving face-to-face learning lectures instead of distance learning lectures.

6. The Comparison of the Academics' Lesson Preparation Durations in Face to Face and Distance Learning in Terms of the Usage of Standards

Table: 7
Independent T Test Results of Professional Satisfaction Rate between Distance Learning and Face-to-face Learning

	Using Standarts	N	$\overline{X}$	SD	$SS_{\overline{X}}$	Independent T Test		
						t	df	p
The Lesson Preparation Time in Distance Learning	No	25	4.8400	3.95474	.79095	0.493	44	.625
	Yes	21	4.3095	3.21122	.70074			

Table 7 shows that there is a difference between the lesson preparation time of instructors who use standards to prepare contents for the lectures in distance learning and who do not use.

However independent samples t test applied to determine if this difference is statistically significant, show that there is no significant difference between two groups.

It can be concluded that use of standards to prepare contents does not make instructors save time or does not change the duration of preparation for the lectures. (t = 0.493, p>0.05).

7. The Comparison of the Distance and Face to Face Education Academics' Opinions on Eight Processes

Table: 8
Paired Samples T Test Results between Eight processes in Distance Learning and in Face-to-face Learning

Distance Learning	N	$\overline{X}_d$	SD_d	$SS_{\overline{X}d}$	Paired Samples T Test		
					t	df	Sig. (2-tailed)
Finding Resources	50	,48	1,50	,21	2,260	49	,028
Preparing Contents	49	1,78	2,38	,34	5,216	48	,000
Finding Materials	49	,67	2,30	,33	2,046	48	,046
Preparing Presentation	49	1,37	2,21	,32	4,322	48	,000
Lectures Presentation	51	,71	2,39	,34	2,106	50	,040
Controlling of Students	52	1,35	3,84	,53	2,528	51	,015
Communication and Interaction	51	2,63	3,22	,45	5,819	50	,000
Instantly Feedbacks and Help	52	2,33	3,42	,47	4,911	51	,000

Table 8 shows that there is difference between eight processes in distance learning and face-to-face learning. Besides, the paired samples t test applied to determine if this difference is statistically significant, show that there is significant difference between these eight pairs.

It means that the processes which are shown in table (i.e. finding resources, preparing contents, finding materials…) in distance learning for instructors are tough when it is compared to processes in face-to-face learning ($t = 2.26, p<0.05$; $t = 5,216, p<0.05$; $t = 2,046, p<0.05$; $t = 4,322, p<0.05$; $t = 2,106, p<0.05$; $t = 2,528, p<0.05$; $t = 5,819, p<0.05$; $t = 4,911, p<0.05$).

8. Findings About the Benefits of Distance Education for Academics

In the first open-ended question, the participants were asked to write the lists of the distance educations benefits for them. The answers narrowed down to seven themes by the content analysis method, are shown in Table 9.

Table: 9
The Participants' opinions about Benefits of Distance Education for Academics.

Benefits of Distance Education for Academics	% of Answers
Continuous self-improvement, improve presentation skills	26,5
By learning distance education system to follow the technology	24,5
By providing time and place independence provide to approach to the wide masses	18
Digitized documents and these documents can be used on face to face learning	11
To provide financial support	7
Using different communication techniques in education	5
Others	8
Total	100

As can be seen in the Table 9, the most frequently stated benefits of distance education for the academics are its contribution to the instructors' self-improvement and giving them opportunity of following the technology.

On the other hand, that the distance education provides the academics with independence of time and place, digitized documents used in structured nature of distance education can also be used in face to face learning environment, distance education provides financial support and different communication techniques used in distance education environment like forums, e-mails and chats etc. are stated by the participants.

9. The Academics' Problems in Synchronous Distance Education

In the second open-ended question, the participants were asked to write the lists of the problems they experience in synchronous distance education. The answers narrowed down to seven themes by the content analysis method, are shown in Table 10

Table: 10
The Problems Experienced by the Academics in Synchronous Distance Education

The Academics' Problems in Synchronous Distance Education	% of Answers
Lack of student attendance	27
Technical problems	23
Communication and interaction is low between student and instructor	21,6
Control of student/class	9,4
Problems with classes and course content	8
Time constraint	5,5
Others	5,5
Total	100

According to Table 10, the most frequently stated problems of the academics teaching in synchronous distance education are lack of student attendance and technical problems.

Moreover, lack of the interaction between the students and teacher, inability of controlling the students, difficulty in following and developing course contents and time constraints are the other problems stated by the participants.

10. The Academics' Problems in Asynchronous Distance Education

In the third open-ended question, the participants were asked to write the lists of the problems they experience in asynchronous distance education. The answers narrowed down to seven themes by the content analysis method, are shown in Table 11.

Table: 11
The Problems Experienced by the Academics in

Asynchronous Distance Education

The Academics' Problems in Asynchronous Distance Education	% of Answers
Student control problems	20,5
Lack of student attendance	20,5
Lack of communication and interaction between students and instructors	18
Technical problems	15,5
Preparation of content and material	12,8
Lower course payments	5,1
Others	7,6
Total	100

Based on Table 11, it can be said that the most frequently stated problems of the academics teaching in asynchronous distance education are student control problems and lack of student attendance. In addition, lack of the interaction between the students and instructors, technical problems, difficulties in preparation of contents and materials and lower course payments than the courses in synchronous distance education are the other problems stated by the participants.

11. The Academic's Suggestions for Their Working More Effectively in Distance Education

In the fourth open-ended question, the participants were asked to write the lists of the problems they experience in asynchronous distance education. The answers narrowed down to seven themes by the content analysis method, are shown in Table 12.

Table: 12
The academic's suggestions for their working more effectively in distance education

The Academic's Suggestions for Their Working More Effectively in Distance Education	% of Answers
Course content and materials should be prepared professionally	22,5
Instructors and students should have a visual and/or audial interaction	20
Modern educational approaches should be integrated to the distance education environments	15
Instructors must adapt to the distance learning system, follow technological innovations and use them in the courses	10
Technological opportunities should be increased and technical infrastructure must be stronger	8,8
Wages and working conditions must be more satisfactory	6,2
in-service training should be given to instructors	5
Academics should be more careful on copyright issues	2,5
Others	10
Total	100

As can be found out from Table 12, the most frequently given suggestions by the academics are course content and materials should be prepared professionally, instructors and students should have a visual and/or audio interaction and modern educational approaches should be integrated to the distance education environments.

These first three most popular ones are followed by the suggestions that instructors must adapt to the distance learning system, follow technological innovations and use them in the courses, technological opportunities should be increased and technical infrastructure must be stronger, wages and working conditions must be more satisfactory, in-service training should be given to instructors and academics should be more careful on copyright issues.

RESULTS

- **The results show that distance learning academic's titles are lecturers, assistant professors, associate professors and professors. As these titles are generally acquired in middle ages, the average age of the distance learning academic staff's is found as a middle age, 40.**

- **High percentages of instructors tend to use word documents, ppt files, photos and pictures as a material in distance learning. Besides, most of them do not often use materials such as java applets and videos**

- **The lesson preparation time of instructors in distance learning is about 2 times longer than the ones' in face-to-face learning.**

- **There is a difference between the levels of wage satisfaction of instructors in distance learning and face-to-face learning.**

- **There is a difference between levels of professional satisfaction of instructors in distance learning and face-to-face learning. Level of professional satisfaction of instructors in face-to-face learning is greater than the ones' in distance learning**

- **Use of standards to prepare contents does not make instructors save time or does not change the duration of preparation for the lectures**

- **There is significantly difference between Finding Resources, Preparing Contents, Finding Materials, Preparing Presentation, Lectures Presentation, Controlling of Students, Communication and Interaction and Instantly Feedbacks and Help processes in distance learning and face-to-face learning.**

- **In addition, most of the academics teaching in a distance education environment do not often use materials like java applets and videos, although they are very useful and popular materials in distance learning in developed countries.**

- **The average lesson preparation duration of the teachers in distance learning is more than the ones in distance education.**

- **The most frequently stated benefits of distance education for the academics are its contribution to the instructors' self-improvement and giving them opportunity of following the technology.**

- **The most frequently stated problems of the academics teaching in synchronous distance education are lack of student attendance and technical problems.**

- **The most frequently stated problems of the academics teaching in asynchronous distance education are student control problems and lack of student attendance.**

- **The most frequently given suggestions by the academics are course content and materials should be prepared professionally, instructors and students should have a visual and/or audial interaction and modern educational approaches should be integrated to the distance education environments.**

SUGGESTIONS

- **It can be easily concluded that, the average age of the academics teaching in distance learning are not a low one. So younger academic staff should be encouraged to take part in these environments.**

- **For the use of the materials like video, Java Applet, pictures and Flash Animation; distance learning academics should be given technical and financial supports.**

- **The factors that provide the academics in the face to face education with higher professional satisfaction level should be trasferred to the distance education environments.**

- **Some precautions like appointing an assistant to each academic and content support by the distance education centers at universities should be taken to minimize the distance education academics' lesson preparation duration.**

- **Course content and materials should be prepared professionally.**

- **Instructors and students must be able to come together periodically.**

- **New mehtods should be use to interact with students and increase class participation,**

- **Wages and working conditions must be satisfactory.**

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