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TRENDS IN DISTANCE EDUCATION RESEARCH IN TURKEY

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Summary

This paper describes the trends in distance education research in Turkey that are derived as results of a review of research literature in distance education in Turkey over a five-year period from 2003 to 2008. The author used fifteen peer-reviewed journals that publish articles related to distance education and twelve proceedings that belong to two different conferences.

627 articles examined totally. 298 (% 47) of 627 articles reporting a research methodology were included in this study. In order to categorize the issues and research method the categorization system used by Berge and Mrozowski (2001) was used. Technology selection and adoption, learner characteristics, design issues, redefining roles of key participants, strategies to increase interactivity and active learning issues are most common issues researched in Turkey. Descriptive studies are predominant to case study, corelational researches and experimental researhes.

No such study has been conducted in Turkey. The author strongly believe in that the results of this study and the presentation might not only be beneficial for those who are interested in what is happening in terms of distance education research in Turkey but also for those who are planning to conduct research studies in the field of distance education

Introduction:

Distance Education (DE) gets attention in Turkey and in the world. Public and Private Education institutes, firms, academics, students and people focus on this form of education. From primary education to doctorate level and from business to health and other sectors, distance education applications are implemented; researches are conducted and published in journals and conference proceedings and other types. Especially, DE research number has been increased by the development of the computer network at the end 1990's. These developments on the applications and technologies affected the researches too. Much more researches implemented in last twenty years according to more previous years. Scientific literature of DE was improved by these new researches (Aydın, 2005).

At this point, reviews can provide an overview DE in terms of what happened in the past, what is happening in the present and ideas for future on a particular subject or general.

There are many researches reviewing the research literature in the world. A few of them are An Examination of Research Trends in The American Journal Of Distance Education examined by Koble And Bunker in 1997 (Berge and Mrozowski, 2001), Review of Research in Distance Education, 1990 to 1999, by Berge and Mrozowski in 2001. Lee, Driscoll, and Nelson have made content analysis about the past, present and future of DE researches between the years 1997-2002, in 2004 (Karataş, 2008).

Although there is an increasing attention and number of research regarding DE, no such study has been conducted in Turkey. Only Aydın (2005) conducted a research review including pre-result of a comprehensive continuing research in IETC (International Educational Technologies Conference).

This study aims to describe the trends in distance education research in Turkey by reviewing literature by using the framework of Berge Mrozowski's Review of Research in Distance Education, 1990 to 1999 (2001). Articles from journals and proceedings were examined according to articles' research method and some particular criterion described in the Articles and Selection section.

Method
This study is a review of research literature regarding DE to describe the trends in Turkey. In this context, five peer-reviewed journals and eight proceedings from two different conferences determined but for more comprehensive research, ten journals and four proceedings added later. Totally fifteen journals and twelve proceedings were used to gather data over a five-year period from 2003 to 2008.

One of the important points in reviewing process is categorization of the research issues. Previous review studies used some categorization titles but Berge and Mrozowski stated that Sherry's (1996) categorization system is useful in terms of comprehensiveness. Sherry's system has ten category titles. These are
1. Redefining roles of key participants
2. Technology selection and adoption
3. Design issues
4. Strategies to increase interactivity and active learning
5. Learner characteristics
6. Learner support
7. Operational issues
8. Policy and management
9. Equity and accessibility
10. Cost/benefit trade-offs.

Another point is a need to determine type of methodology used for the researches. In this review, Articles including research method section were classified according to Berge and Mrozowski (2001) research methodology categorization system, based on Phipps and Merrisotis (1999) framework. These are

Descriptive Research: data is gathered through observations, questionnaires, attitude scales and interviews (Berge and Mrozowski, 2001).

Case Study: main purpose of the study is to investigate one group or multiple groups deeply (Berge and Mrozowski, 2001).

Correlational Research: this kind of research investigates if there is a relationship between two or more quantifiable variables (Berge and Mrozowski, 2001).

<u>Experimental Research:</u> this kind of research investigates cause-and-effect relationships considering and comparing control and experimental groups (Berge and Mrozowski, 2001).

Articles and Selection

It is not possible to examine all articles published for DE in Turkey. Like other previous review researches, some criteria were determined. A first criterion to select articles, they have to be published between the years 2003 and 2008. Second, articles must be accessible online. Third, articles must be full text, because some abstracts cannot supply sufficient information for categorization. Fourth, articles must have a research method section and fifth articles had to be peer-reviewed.

No keywords used to search the articles. Instead, previously determined journals and proceedings searched title by title. Because some of journals have not a search engine and there are so many keywords to search.

Table 1 shows the journals and information about them.

Table 1. Journals and information about them

Journal	Years	Volume/issue
Turkey Online Journal of Distance Education-TOJDE	2003-2008 Vols. 4-9	Issues 1,2,3,4 each year
Turkish Online Journal of Educational Technology-TOJET	2003-2008 Vols. 2-7	Issues 1,2,3,4 each year
Hacettepe University Education Faculty Journal	2003-2008 Vols. 24-35	Issues 1,2 each year
Gazi University Education Journal	2003-2008 Vols. 23-28	Issues 1,2,3 each year (2006, 1.3 issues)
Gazi University Informatics Technologies Journal	2008 Vols. 1-3	Issues 1,2,3 each year
Anadolu University Social Sciences Journal	2003-2008 Vols. 3-8	Issues 1,2 each year
Ankara University Education Science Journal	2003-2008 Vols. 36-41	Issues 1,2 each year
Yuzuncu Yıl University Education Faculty Journal	2003-2008 Vols. 1-6	Issues 1,2 each year
Mersin University Education Faculty Journal	2005-2008 Vols. 1-4	Issues 1,2 each year
Ege University Education Faculty Journal	2004-2006 Vols. 5-7	Issues 1,2 each year
Inonu University Education Faculty Journal	2003-2008 Vols. 4-9	Issues 1,2 each year
Erzincan University. Education Faculty Journal	2003-2008 Vols. 5-10	Issues 1,2 each year
Kastamonu University Education Faculty Journal	2006-2008 Vols. 14-16	Issues 1,2 each year
Balikesir University Education Faculty Journal	2007-2008 Vols. 1-2	Issues 1,2 each year
Gazi University Turkish Education Sciences Journal	2003-2008 Vols. 1-6	Issues 1,2,3,4 each year

This review used two conference proceedings. Table 2 shows the conferences and information about them.

Table 2. Conferences and information about them

Conference	Years
Academic Informatics Conference	2003-2008
International Educational Technology Conference	2003-2008

Results and Discussion:

Since the abstracts sometimes have not sufficient information for categorization, all accessible articles were read by author. Research method, article title, research questions and aim of the researches determined which category the article belongs. A record set created included the field for journals name, volume-issue-number (for journals) or page (for conference proceedings), Sherry's (1996) issue category and Phipps and Merrisotis' (1999) research category in a Microsoft Excel database. After all articles were read and examined by author, a coauthor checked the database and necessary corrections were made.

Number of Research Articles

627 articles were examined from journals and conference proceedings. 321 of them are from journals and 306 from conference proceedings. Table 3 shows the number of total articles and the number of articles including research method sections according to journals and proceedings.

Table 3. Dispersal of articles for journals and proceedings

Source	Total Articles	Research Only	Percentage Research
Journals	321	182	56%
Proceedings	306	116	38%
Totals	627	298	47%

Table 3 shows that, totally 298 (%47) research articles were published in 5 years period, from 2003 to 2008. 182 (%56 of journal articles) of articles were from journals and 116 (%38 of proceeding articles) from proceedings. Journals published more research articles than the proceedings. Also proceedings decreased the percentage of total research articles under %50, by 38%.

Table 4 shows number of total articles, number of research articles and dispersal of according to years.

Table 4 shows that, there is an increase in the number of research articles from 2003 to 2005. But the number of published research articles decreased in 2006 and 2007. The 2008 numbers show a jump for both journals and proceedings by % 61 for journals and % 75 for proceedings. Specially proceeding article numbers has a great increase according to previous year. According to table, it can be said that, the years 2006 and 2007 has broken the upward trend in favor of research articles. The next years' data will determine the current trend.

Table 4. Number of total articles, number of research articles and dispersal of according to years with percentage

Year	Article	Journals	Proceedings	Totals
2003	All Articles	30	52	82
	Research Articles	15	12	27

	Percentage	50%	23%	33%
2004	All Articles	41	73	114
	Research Articles	21	21	42
	Percentage	51%	28%	36%
2005	All Articles	49	36	85
	Research Articles	29	14	43
	Percentage	59%	38%	50%
2006	All Articles	65	50	115
	Research Articles	37	17	54
	Percentage	57%	34%	47%
2007	All Articles	56	42	98
	Research Articles	31	12	43
	Percentage	55%	28%	43%
2008	All Articles	80	53	133
	Research Articles	49	40	89
	Percentage	61%	75%	67%
Totals	All Articles	321	306	627
	Research Articles	182	116	298
	Percentage	56%	38%	47%

Research trend in terms of research methodology

Table 5 shows Descriptive studies are dominant to other research methodologies. This table shows that totally %52 (155) of the articles is descriptive, more than half of all articles. %11 (33) of researches used correlational research in research section. Experimental research is %13 (39), and case study is %24 (71). Correlational and experimental research numbers are close to each other.

Table 5. Research Methodology Used in Articles

Research Methodology	Number of Research Articles	Percentage of Research Articles
Descriptive	155	52%
Case Study	71	24%
Correlational	33	11%
Experimental	39	13%
Total	298	100%

Table 6 lists the dispersal of research methodologies according to years. It can be said that, descriptive study numbers shows an upward trend according to years. Only the numbers of 2007 shows a little decrease by 1 article according to previous year. But other research methodologies' numbers does not show any kind of trend. But 2003 numbers of case studies, correlational and experimental researches has been increased according to 2008, approximately for three times.

Table 6. Research Methodology Usage Dispersal According to Years

Method	2003	2004	2005	2006	2007	2008	Total

descriptive	12	21	26	26	25	45	155
case study	8	14	11	10	7	21	71
correlational	3	3	3	9	6	9	33
experimental	4	5	4	8	5	13	39
Total	27	43	44	53	43	88	298

Trend of Research Issues

Determining process of the articles' issues is very challenging. Some articles have titles which gives tips about the issue and Sherry's (1196) category. But when they are read and examined all sections of articles, it is understood that the tip may not be true. So researches had to be read carefully and had to be put into the right category.

Table 7 shows the dispersal of issues according to years and Figure 1 shows the number of articles according to Sherry's categorization.

Issue Trend
Table 7. Issue Categorization

	Issues									
Year	1	2	3	4	5	6	7	8	9	10
2003	2	5	3	3	6	1	3	2	2	0
2004	7	6	8	8	8	1	3	1	0	0
2005	10	7	3	3	9	3	4	2	1	1
2006	6	7	12	7	11	0	5	3	2	0
2007	4	13	7	2	2	2	4	4	5	0
2008	10	26	13	13	15	3	5	1	3	0
Total	39	64	46	36	51	10	24	13	13	1

Figure 1. Issue Dispersal of Articles
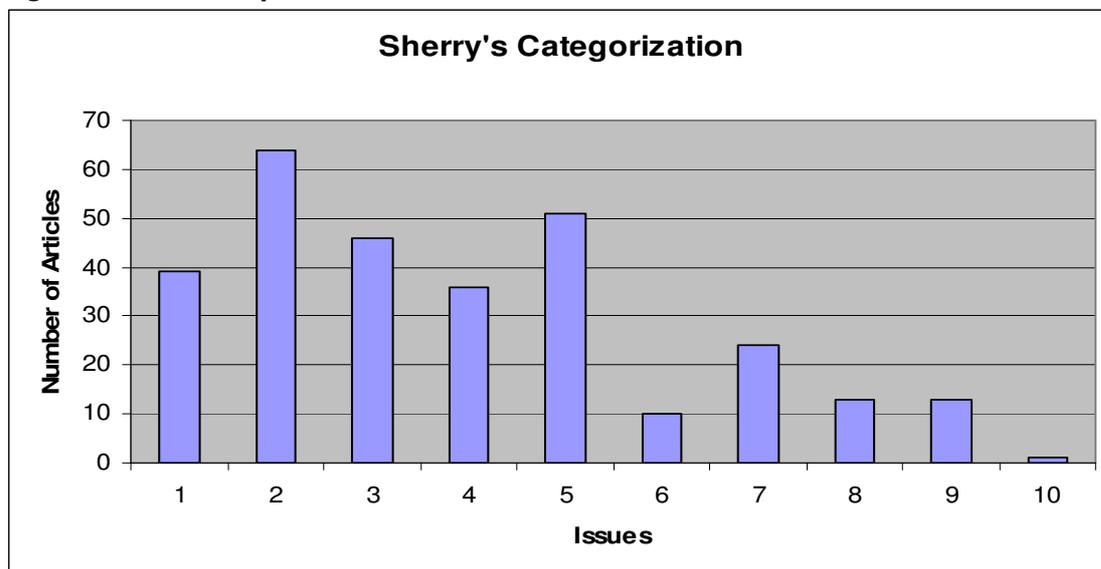
Category Titles
1. Redefining roles of key participants
2. Technology selection and adoption
3. Design issues
4. Strategies to increase interactivity and active learning
5. Learner characteristics
6. Learner support
7. Operational issues
8. Policy and management
9. Equity and accessibility
10. Cost/benefit trade-offs.

There are very few researches about title 10 (Cost/benefit trade-offs). There is only one research about this title. Since this issue is about some institutional subject, the institutional researches were not implemented in Turkey. This situation is supported by the data of 6, 7, 8 titles. These titles are about institutional too. Here title 6 is learner support, title 7 is operational issues and title 8 is about policy and management issues. These titles are about institute and country based issues regarding DE.

It is remarkable in the table 7 that, title 2 (Technology adoption and selection) has an upward trend. It can not be seen on other topics. Its cause may be the usage of DE applications in face-to-face education as a supportive way for continuum for interaction and the emergence of new technologies. Individual teachers (this term used by Moore and Kearsley in 2005, means that the teachers using DE technologies individually for their classroom) use and try to adopt the internet technologies like blogs, wikis, etc. in their classrooms in Turkey. Also Universities and other institutes are on the way of transform to the dual mode institutes (this term used by Moore and Kearsley in 2005, means that universities services in both traditional education and DE applications) (Özkul, 2008). On this way, some DE technologies are being used and tried to adopt in those institutes.

The first five titles, redefining roles of key participants, technology selection and adoption, design issues, strategies to increase interactivity and active learning, learner characteristics are about learner, teacher, design, technology, pedagogy and androgogy issues. These titles are prominent over last five titles, learner support, operational issues, equity and accessibility, cost/benefit trade-offs. This situation is similar with the research results with Berge and Mrozowski's (2001) study except for title 8 and title 1. They have stated that the area of pedagogy had been more commonly discussed than the institutional or policy issues (Berge and Mrozowski, 2001).

Limitations
Like all other reviews, this study has some limitations. Some are listed below including issue categorization, method categorization, source of data, and limitations about the author.

Berge and Mrozowsky (2001) stated that, although Sherry's categorization system is comprehensive but it was based on subjectivity. It means that, different researchers may put some articles issues into different categories. That situation is true for this research too. A coauthor has examined the database for overcoming this situation.

Also categorization of research methodology has some limitations. Most of the articles examined in this review are clearly expressed the research method. But it was challenging to find research method in some articles too. Also some articles could not have been put in appropriate category in term of methodology and issue.

There may be other research resources published DE articles, like journals and other resources of education and other field. But as mentioned before in the Article and Selection section, predetermined sources used to gather data. But for more comprehensive research other resources were included to research.

Conclusion
The main purpose of this research review is to determine the trends in terms of research issues and research methods in Turkey, about DE. This kind of reviews can help the practitioners, policy makers, researchers, managers and other people and institutions related and interested in DE, in the way of seeing the full picture or gathering information a particular subject.

Technology usage and adoption, meeting with DE applications, design issues, interactivity and active learning issues and some characteristics of learners issues are prominent to other

issues. Generally traditional education was supported by DE applications in Turkey and these blended learning environments were evaluated by the student opinions and attitudes. Especially learning management systems usage is popular on this way. Also many internet based applications developed and evaluated. Field specific internet based applications were used to supply a better learning. Learner characteristics were examined in some particular learning environments. There were still studies comparing DE and traditional education. Also some program development stages, DE applications, evaluations and experiences of universities were expressed in the researches.

Learner support, equity and accessibility issues researched seldom. Diffusion of DE to wider population of the society can be examined in the further studies. Open course ware, open courses and social networks can be examined in the future too. Other than internet technologies, like TV, Radio, mobile technology research numbers are very few.

Correlational and experimental research numbers fewer than the descriptive and case studies in terms of research methodology.

The results of this study and the presentation might not only be beneficial for those who are interested in what is happening in terms of distance education research in Turkey but also for those who are planning to conduct research studies in the field of distance education.

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