

# Open and Distance Learning in Turkish Journals

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## Abstract

The goal of this paper has two folds: First was to analyze the research articles published in 3 widely accepted journals published in Turkey to be able to explore the current trends in the field of ODL research during the period 2010-2015. Based on this analysis, second, it tries to draw a big picture about the issues and problems in ODL research in Turkey. The results, or lessons drawn from this study can be summarized as: technology integration to traditional education is gaining importance, the focus of the research studies has shifted from teachers to learners, educational technology, learner characteristics as well as theories and models are the most common research areas, achievement is the most focused variable among Turkish researchers, quantitative research method is also the most popular research method, the references and authors cited in the articles are quite diverse from all over the world.

## Introduction

Turkey met open and distance learning nearly sixty years ago and then due to the advancements in information and communication technologies (ICT), open and distance learning has evolved deeply. In addition to these developments, new implementations, pedagogies, theories and models have occurred globally in the field of open and distance learning. Harasim (2000) states that Web technologies made online education increasingly open, accessible and flexible which allowed new pedagogical models to emerge and reasoned the revolution in digital knowledge age that enabled greater and faster human communication and collaboration and led to fundamentally new forms of economic activity that produced the knowledge economy and required basic changes in education.

Turkey has always been trying to keep up with these improvements. Today, the number of distance education providers in Turkey has reached to 88. According to Higher Education Council (HEC) statistics (2018), there are nearly 8 million students in higher education and nearly 2 million of them are distance learners. This means that there is great demand for open and distance learning. In order to be able to response this demand, educators and administrators must have the latest knowledge and skills about current trends in the field.

Although open and distance learning has a long tradition in Turkey in terms of practice, the research published in Turkish journals is a bit less than it has to be. In order to spot the open and distance learning trends and provide a

detailed list of current research trends in Turkey, this study proposes to fill the gap in the field of open and distance learning research conducted and published in Turkey.

### Literature Review

Systematic review of research has been accepted as a research method for some time as a result of the studies employed this method over the last couple decades. In the field of ODL, we observed several major systematic reviews. One of them, for instance, was carried out by Berge and Mrozowski (2001) who examined the ODL literature between the years 1990 and 1999. In this research, the author reviewed 890 articles under the categories proposed by Sherry (1996): participants, technology selection and adoption, design issues, strategies to increase interactivity and active learning, learner characteristics, learner support, operational issues, policy and management issues, equity and accessibility, and cost/benefit trade-offs. The results showed that pedagogical themes and strategies for active learning were the most frequent topics used in the field.

Another major study was conducted by Lee, Driscoll and Nelson in 2004. They examined 383 articles published in four journals (The American Journal of Distance Education-AJDE, the Journal of Distance Education - JDE; Distance Education-DE, and Open Learning-OL) from 1997 to 2002. The authors have examined the articles based on topics, research method, the statistical analyses, citation of authors, and the cited books.

Zawacki-Richter, Backer, and Vogt (2009) conducted an extensive study by examining the 695 articles published in five prominent journals of ODL. The authors limited their study with the articles published between the years 2000 and 2008. Their study concluded that interaction and communication patterns in computer-mediated communication, instructional design issues, learner characteristics, and educational technology are the most frequently investigated topics in ODL research domain. Later, in one another study, Zawacki-Richter (2009) developed a set of categories showing the research areas in the field of OLD which became one of the widely used categorization of the research topics in ODL. To be able to make this categorization, a Delphi study and an extensive literature review were carried out. As a conclusion, 15 research areas that were organized into 3 broad categories were created (Table 1).

*Table 1. Classification of Research Areas in Distance Education*

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**Macro level: Distance education systems and theories.**

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**1. Access, equity, and ethics:** The democratization of access to DE afforded by new media and by finding ways to deliver high-quality education to those who have limited resources and poor infrastructure; issues that refer to the (sustainable) provision of DE in developing areas. What is the impact of DE (e.g., via mobile learning) on narrowing the digital divide and what is the role of ICT (information and communication technologies) and/or OER (open educational resources) in terms of access to education?

**2. Globalization of education and cross-cultural aspects:** Aspects that refer to the global external environment and drivers, the development of the global DE market, teaching and learning in mediated global environments, and the implications for professional development.

**3. Distance teaching systems and institutions:** DE delivery systems, the role of institutional partnerships in developing transnational programmes, and the impact of ICT on the convergence of conventional education and DE institutions (hybrid or mixed mode).

**4. Theories and models:** Theoretical frameworks for and foundations of DE, e.g., the theoretical basis of instructional models, knowledge construction, interaction between learners, or the impact of social constructivism learning theories on DE practice.

**5. Research methods in distance education and knowledge transfer:** Methodological considerations, the impact of DE research and writing on practice, and the role of professional associations in improving practice. Literature reviews and works on the history of DE are also subsumed within this area.

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**Meso level: Management, organization, and technology.**

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**6. Management and organization:** Strategies, administration, and organizational infrastructures and frameworks for the development, implementation, and sustainable delivery of DE programmes. What is required for successful leadership in DE? DE and policies relating to continuing education, lifelong learning, and the impact of online learning on institutional policies, as well as legal issues (copyright and intellectual property).

**7. Costs and benefits:** Aspects that refer to financial management, costing, pricing, and business models in DE. Efficiency: What is the return on investment or impact of DE programmes? What is the impact of ICT on the costing models and the scalability of DE delivery? How can cost effective but meaningful learner support be provided?

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**8. Educational technology:** New trends in educational technology for DE (e.g., Web 2.0 applications or mobile learning) and the benefits and challenges of using OERs, media selection (e.g., synchronous vs. asynchronous media), technical infrastructure and equipment for online learning environments, and their opportunities for teaching and learning.

**9. Innovation and change:** Issues that refer to educational innovation with new media and measures to support and facilitate change in institutions (e.g., incentive systems for faculty, aspects referring to staff workloads, promotion, and tenure).

**10. Professional development and faculty support:** Professional development and faculty support services as a prerequisite for innovation and change. What are the competencies of online teachers and how can they be developed?

**11. Learner support services:** The infrastructure for and organization of learner support systems (from information and counselling for prospective students about library services and technical support to career services and alumni networks).

**12. Quality assurance:** Issues that refer to accreditation and quality standards in DE. The impact of quality assurance and high quality learner support on enrolments and dropout/ retention, as well as reputation and acceptance of DE as a valid form of educational provision.

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**Micro level: Teaching and learning in distance education.**

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**13. Instructional design:** Issues that refer to the stages of the instructional design process for curriculum and course development. Special emphasis is placed on pedagogical approaches for tutoring online (scaffolding), the design of (culturally appropriate) study material, opportunities provided by new developments in educational technology for teaching and learning (e.g. Web 2.0 applications and mobile devices), as well as assessment practices in DE.

**14. Interaction and communication in learning communities:** Closely related to instructional design considerations is course design that fosters (online) articulation, interaction, reflection, and collaboration throughout the learning and teaching process. Special areas include the development of online communities, gender differences, and cross-cultural aspects in online communication.

**15. Learner characteristics:** The aims and goals of adult learners, the socioeconomic Background of DE students, their different learning styles, critical thinking dispositions, and special needs. How do students learn online (learner behavior patterns, learning styles) and what competencies are needed for distance learning (e.g., digital literacy)?

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One of the major systematic reviews carried out by Turkish researchers (Bozkurt et al, 2015) included 861 articles published during 2009 and 2014 in the 7 peer-reviewed and indexed by the major well-known indexes: The American Journal of Distance Education (AJDE), Distance Education (DE), The European Journal of Open, Distance and e-Learning (EURODL), The Journal of Distance Education (JDE), The Journal of Online Learning and Technology (JOLT), Open Learning: The Journal of Open, Distance and e-Learning (OL) and The International Review of Research in Open and Distributed Learning (IRRODL). The authors also conducted content analysis and social network analysis. Their main goal was to see if there were any changes in terms of trends and issues in ODL research after the Zawacki-Richter's study (2009). Their study concluded that distance education and open and distance learning terms are being used more frequently than before, which is considered as a paradigm shift in education.

### Purpose and Research Questions

Although it is possible to find studies showing trends and issues in DE field on international basis from 1990s to 2014, there are no studies showing the trends of Turkish research domain published in a Turkish journal. It is also possible to find some similar studies showing the current trends about education technology (Göktaş et al., 2012, Bozkaya et al., 2012) but none of them has a specific focus on open and distance education. This study was carried out to fill the gap and also to show the research areas most frequently used in the Turkish research domain. In addition, this study aims to provide comprehensive information for further research and to set light to recent ODL trends that might be useful for researchers.

To be able to provide comprehensive information and to brighten the research domain following research questions were used:

What are the most frequent/ly

1. indicated keywords,
2. chosen research areas,

3. emphasized theoretical/conceptual backgrounds,
4. employed research designs,
5. used data collection instruments and data analysis techniques,
6. focused variables,
7. targeted population and/or participant groups,
8. cited references,
9. cited authors in ODL research articles between 2010 and 2015?

### Method

This descriptive study was conducted with the same methodology as the study by the Bozkurt et al. (2015) due to the fact that both were conducted as a part of a doctoral level course offered by the same professor, Cengiz Hakan Aydin. So, a content analysis was employed to analyze the articles for the purpose of answering the questions identified. Berelson (1952) defined content analysis as a systematic and replicable technique for classifying many words of text into fewer categories based on explicit rules of coding. After choosing the research design, a set of criteria was developed for the themes to be studied and the content of articles in the selected journals was coded according to these pre-set categories. Journals that are published by a Turkish institution in Turkish, a publication history of 10 years or more, a specific focus on DE and open and distance learning context, and indexed by the web of science indexes included into the study. Total four journals met the criteria: Hacettepe University's College of Education Journal (Hacettepe Eğitim Fakültesi Dergisi-HEF), Theory and Practice of Educational Sciences (Kuram ve Uygulamada Eğitim Bilimleri Dergisi-KUYEB), Journal of Education and Science (Eğitim ve Bilim Dergisi), and Türkiye ve Orta Doğu Amme İdaresi Enstitüsü Dergisi (TODAIE). Two of these journals (KUYEB and TODAI) were excluded the web of science's indexed after this study. Also, during analyses, no articles directly related to the field of ODL was found in one of these four journals, namely in TODAIE. So, it was excluded from the study.

Table 2. Journals and number of articles included into the study

JOURNALS	2011	2012	2013	2014	2015	2016	Total (N)
HEF	3	2	4	3	1	4	19
KUYEB	1	4	4	3	2	1	13
Education and Science	1		4	5	3	7	20
<b>TOTAL</b>	<b>5</b>	<b>6</b>	<b>12</b>	<b>12</b>	<b>6</b>	<b>12</b>	<b>52</b>

All articles published between 2011 and 2016 (N=1349) were reviewed thoroughly by each author individually. Total 52 articles were identified as research articles and others which are either irrelevant to ODL research or identified as other (editorials, book reviews, interviews, concept papers, position papers, reflection papers, field notes, technical notes, etc.). For this study, only the research articles were used. Zawacki-Richter's (2009) classification was adapted due to the fact that the research categories and areas schema were more rigorous and based upon the views of international experts in the field of ODL. Categories related to methodology for coding largely follow those identified in Creswell (2012). When a study did not fit into the categories identified by Creswell, the name of the method that the writer of the article used was added into an existing category based on similarity of method with others in that category.

### Findings and Discussion

In this study 1349 articles were used (Table 2). A total of 52 articles were examined through content analysis and the criteria determined.

#### Keywords Indicated

In this study totally 162 keywords were included and ranked according to their frequency. Figure 1 shows the most frequent keywords used in the articles examined. It can be seen in the figure that distance education, e-learning and blended learning are the most frequently used keywords in these articles. It may be concluded that as

parallel to the change in the international ODL research area, Turkish research area is also under the effect of online technologies. This conclusion is also in line with Bozkurt et al's (2015) study.

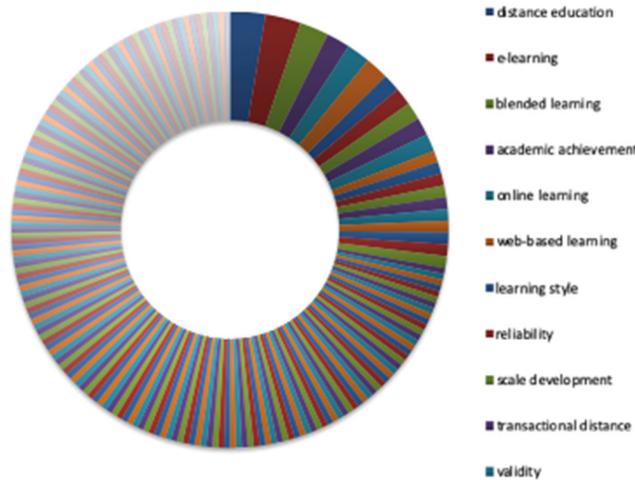


Figure 1. Most Frequent Keywords

Terms like web-based instruction, e-learning styles, learning object, learning styles, academic success and interaction are other mostly used keywords that this study concludes. This may show that the focus in the articles has been changed into learners. That is, with the development of open and distance learning instructional pedagogies change their shift from instruction to learners and how do they learn as an individual.

### Research Areas

As has been mentioned before, this study used the classification developed by Zawacki-Richter (2009) to define the research areas in ODL. Among the micro level topics, interaction and communication in learning communities, and the learner characteristics are the most frequently studied ones. In the meso-level, educational technology is the only topic examined so often. Related to macro level, theories and models is the one investigated most often.

These results support the literature such as Zawacki-Richter (2009) and Bozkurt et al (2015). Namely, it may be concluded that in the last 15 years trends and issues have changed in the same line globally. In other words, the researches conducted and published in Turkey show similar results in terms of trends and issues in the field of open and distance education.

This current study examined totally 39 articles which are focused on open and distance learning research because of this limited number of articles the categories that are not mentioned above such as costs and benefits, quality assurance, innovation and change and so on are not researched in the articles that were published in these 4 journals. This lack of research may be starting point for future researchers.

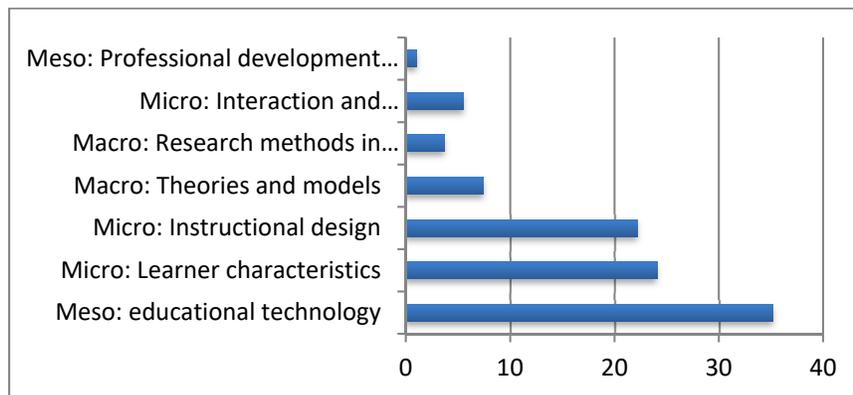


Figure 2. Research areas

### Theoretical/Conceptual Backgrounds

Figure 3 shows the most frequent theoretical/conceptual backgrounds that were used in the studies conducted in Turkey. It is clear in the figure that blended learning, hybrid learning, and web-based learning are very common among researchers in Turkey. It can be concluded that the integration of technology to traditional education has also gained importance as a new trend.

What is more, theories such as community of inquiry, collaborative learning, social learning theory and activity theory that explain how learning occurs on networks through collaboration in community cannot find a place themselves in the studies. However, Bozkurt et al (2015) stated that these theories are favoured by ODL researchers in their study. That means there is a different trend in terms of theories between researches abroad and researches in Turkey. This may also serve as a starting point to the researchers in Turkey and may help them to find a research area to be examined.

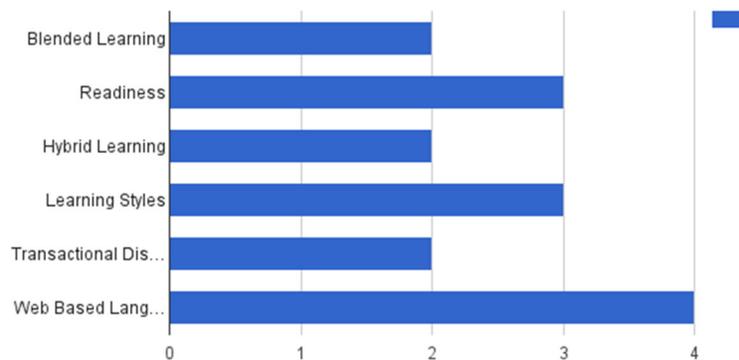


Figure 3. Theoretical background

### Research Designs

Figure 4A and 4B shows the research methods and designs used in the articles examined. Qualitative, quantitative and mixed research designs are also used in this study that is the same in many other similar fields. As shown below, quantitative (55,3%) studies are the most conducted ones and then qualitative (34,2%) studies take the second place and as last research design Turkish researchers employed mixed (10,5%) research design as a method.

These results are not in the same line previous study (Bozkurt et al., 2015) which shows qualitative (47%) studies in the first rank and then quantitative (37%) studies except for mixed (16%) research design. On the other hand, Zawacki-Richter et al's study (2009) reported similar results in terms of ranking. It is interesting to note that, in all these 3 studies mixed research design remains as the least frequent research design. That is, from 2000 to 2015 there is no significant change in the research design trends of the articles.

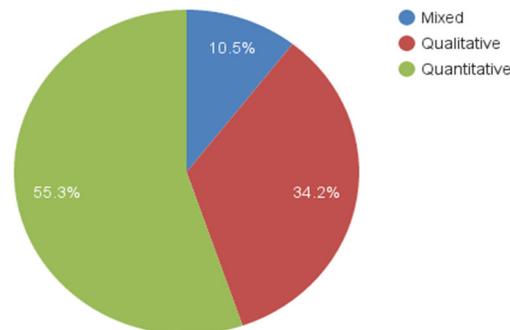


Figure 4. Research method

Of all researches experimental, descriptive and case study designs are the most frequent research design models in the articles examined. This data reveals that there is a need to conduct more studies employing different research design models.

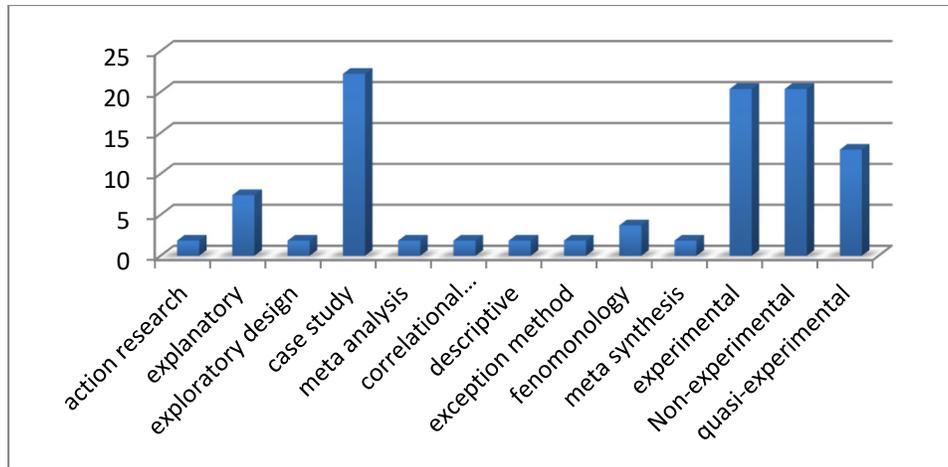


Figure 5. Research designs employed

### Data Collection Tools and Strategies

This study also investigated data collection instruments and tools. It is clear in the figure that scale is the most frequent data collection tool. Questionnaire, achievement tests and interviews are also in common. Bozkurt et al (2015) also reported questionnaires and interviews as the most frequent data collection tools. In other words, the research trends somehow follow a similar path in the field of open and distance education.

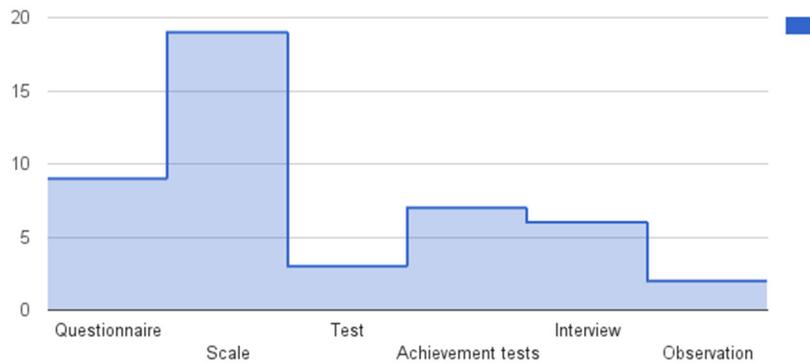


Figure 6. Data Collection Tools

### Variables

As it can be seen in Figure 8, student achievement (29,2%) is the most frequent variable of the studies. On the other hand, these results overlapped with the results of keyword analysis which reports the change in the focus from teachers to learners. As students are in the center of research, their success and feelings are also become important. This may be concluded as a trend of Turkish research filed.

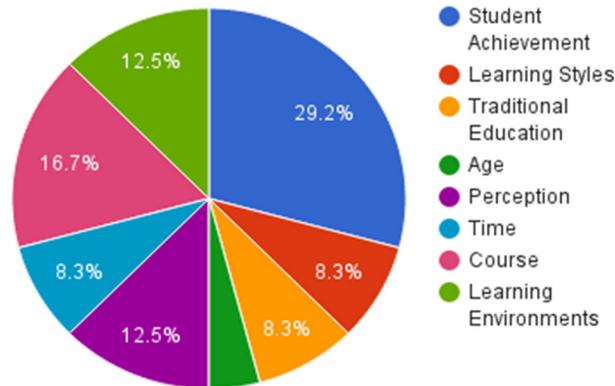


Figure 7. Variables

### Participant Groups

The research question regarding to participants reveals a very clear result. According to this result, learners (75%) are the most frequent participants of the studies conducted in Turkey. Of all studies, very few studies benefited from teachers, managers, graduates or so on. This result is also in the same line with other studies conducted abroad.

It is also interesting to note that, K-12 learners are not so common in the studies. Although there is an open education high school which has 945.390 students in Turkey, there is no study conducted or published in the Turkish journals. This may also be a point of interest in the future studies to be conducted in Turkey.

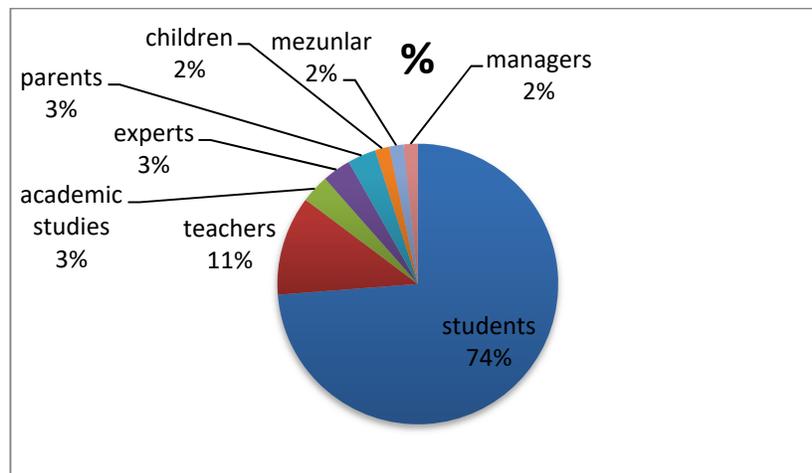


Figure 8. Participants

### Authors Cited Often

This study also determined the leading contributors in the field according to their number of citations. Totally, there are 3106 citations. 22 authors who have been cited at least 7 times are included in the table.

Table 3. Authors cited the most

The First Author of the reference	Frequency of citation
Moore, M.G.	22
Büyükoztürk, Ş.	19
Garrison, D.R.	19
Brusilovsky, P.	17
Fraser, B.J.	17
Tsai, C.C.	17
Horzum, M.B.	16
Aşkar, P.	15
Akkoyunlu, B.	13
Gunawardena, C.N.	12
Anderson, T.	11
Baki, A.	11
Jonassen, D.H.	11
Chen, Y.J.	10
Jung, I.	10
Trinidad, S.	10
Yıldırım, A.	10

#### References Cited Often

In order to provide a comprehensive list for further research, this part of content analysis presents the most cited works (articles, books, web cites, etc.) within the articles analyzed in this study. It also presents a good reading list that may help researchers as a reference guide. This table was created by filtering 1635 references that have been cited at least 1 time. Studies that have the same rank were ordered according to their publication dates. It was interesting to note two points: First, the Turkish researchers cited the references related to the research methods more often than the references related to the field of ODL. Second, the references are quite diverse. Namely, the researchers used variety of resources in their studies.

Table 4. References cited the most

Reference	Frequency of citation
Sosyal bilimlerde nitel araştırma yöntemleri	11
Sosyal bilimler için veri analizi el kitabı	7
Distance education: A systems view	7
Theory of transactional distance	6
Principles and practice of structural equation modeling	6
Hamanlanmış öğrenme ve çevrimiçi öğrenme ortamlarının ...	5
Distance education, in handbook of research in educational communications and technology	5
Yapısal eşitlik modelleri: Temel kavramlar ve örnek uygulamalar	4
Qualitative data analysis: An expanded source book	4
Internet-based distance education bibliography	4
How to design and evaluate research in education	4
Case study research: Design and methods	4
Bilimsel araştırma yöntemleri	4
Adaptive and intelligent web based educational systems	4
Verifying the key theoretical concepts in a dynamic model ...	4
Web-based teaching and learning control: A research review.	3

## Summary and Future Implications

The results of this study try to reveal the research trends and issues in open and distance learning emerging from scholarly publishing four national journals. This study also intended to present the current research direction for future research. The results, or lessons drawn from this study can be summarized as follows:

- Technology integration to traditional education is gaining importance.
- The focus of the research studies has shifted from teachers to learners.
- Educational technology, learner characteristics as well as theories and models are the most common research areas.
- Achievement is the most focused variable among Turkish researchers.
- Quantitative research method is also the most popular research method.
- The references and authors cited in the articles are quite diverse from all over the world.

Overall as one can easily conclude that the quantity of the articles directly related to ODL published in Turkey in Turkish is limited compare the long history of ODL practices in the country. Especially finding no articles directly related to ODL in one of the major Turkish journals was very disappointing. In terms of quality, there are also several issues need to be addressed: First, the keyword analysis has shown that blended learning, hybrid learning, and web-based learning are among the most frequently used concepts. It may be inferred as that the ODL literature in Turkey is still in awareness phase where the researchers and the practitioners are trying to differentiate the ODL implementations. Another interesting finding is about the research areas: Educational technology as a meso level issue, instructional design and learner characteristics as micro level issues seem to be the most often studies topics. Although, ODL is considered as a subset of the field of educational technology in some countries, many believe in (Aydin, 2011) that it is a separate and mature field whose roots lies in the openness in education movement (Ozkul, 2014). In Turkey, both in research and in practice it does not really considered as a separate field although the Üniversitelerarası Kurul (UAK), an agency established to facilitate the cooperation among the higher education institutions in Turkey, listed ODL as a separate Associate Professorship Field. In the same list ODL is also listed as an expertise area in two different Professorship Fields: Computer Education and Instructional Technology (namely educational technology) and Higher Education Studies. A field simultaneously cannot be considered as a separate field of study and as subset of other fields. This even shows that the nature of ODL has not been understood by the academic community in Turkey.

Regarding the results of the study, following implications can be taken into consideration for future studies and practices:

- More systematic review of literature type of studies needed to be able to understand the trends in the field in Turkey
- Especially doctoral research studies should focus more on mixed methods to train future researchers in the field with experience in diverse research methods.
- More studies should be done on the macro level issues, such as equal education opportunity, social inclusion, etc.
- Studies should also concentrate on faculty/facilitators/instructors.
- Comparison studies (face-to-face vs distance/online) should be avoided and more studies should rather take the effective online pedagogies into consideration.
- The practitioners should employ different and more innovative ODL strategies and tools into their ODL offerings.

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