Educational Sciences: Theory & Practice - Special Issue • Autumn • 3227-3241

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# An Examination of Articles Published on Preschool Education in Turkey*

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**Abstract**

This study aims to examine articles published in Turkey on Preschool Education both in terms of subject and method. Sample of the study based on document analysis in qualitative method consists of seven Turkey-based journals indexed in SSCI (Social Science Citation Index) and 10 journals indexed in Turkish Academic Network and Information Center (ULAKBIM). Descriptive statistics related to selected articles were first provided and then evaluations made through criteria form developed according to "Criteria for Evaluating Studies in Social Sciences" that Kırcaali-İftar edited from Gay and Airasian were provided. Among the journals examined are "Educational Sciences: Theory & Practice" and "Elementary Education Online" journals in which most articles on preschool education were published. Journals examined were classified into five categories based on their subjects. Most of the studies in the selected articles focused on "education in preschool education grade". Among these articles, articles focusing on "language teaching, games and science teaching" were examined. Most of the studies were descriptive studies. Questionnaires/scales, interview forms and tests were used as data collection tools and parametric analyses were used in data analysis. There is not any problem in reporting aims, results and suggestions parts of the studies, however, there are serious problems in model, population, sample, reliability and validity and data analysis of the studies examined and there is not any information related to representation rate of sample in the population. Also, while there is information regarding the reliability, there is not sufficient information on validity of studies.

**Key Words**

Preschool Education Studies, Article, Examination.

Although it is possible to determine criteria for the institutionalization of a science branch such as opening new departments, educational programs giving out diplomas, scientific corporations holding scientific meetings and institutionalization of scientific research, the quality of scientific studies is among the most significant criteria. The reason for this is that scientific studies are the basic indicators of production and accumulation of high quality knowledge on that specific area. Within that framework, in recent years, it can be observed that there has been a significant increase in the number of studies on educational sciences and teacher education in Turkey, the number of journals published on educational sciences and indexed in international educational indexes has increased and more and more scientific meetings and congresses are held. It can also be seen that various scientific branches have increased their association activities. All these activities facilitate publication and spread of scientific studies and lead to an increase in the

* This paper was revised after being presented at the International Conference on Global Issues of Early Childhood Education and Children's Rights, Gaziantep, Turkey, 27-29 April 2012.

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number of publications. However, this quantitative increase does not necessarily bring about an increase in quality. Thus, many studies are conducted on the quality of these studies, recently. These studies examine suitability of four basic parts needed to be in a scientific study that are "introduction", "method", "findings", "results, discussion and suggestions" according to some adopted reporting principles, because basic condition for the publications of scientific studies is the reporting phase that needs to be effective, understandable and to be in systematic coherence. Systematic consideration of knowledge produced while doing a research is possible only when all processes are recorded and reported (Ağaoğlu, Altınkurt, Ceylan, Kesim, & Madden, 2008). Articles, within that context, are among the research type that has the most important function of spreading the knowledge as scientific articles serve the goal of helping scientists to observe what is happening in their areas of expertise. Scientists need to read studies conducted by one another, communicate with each other effectively, and discuss issues and, within that framework, it could be noted that articles create a science production environment (Sargut, 2006).

Many studies that examine studies in their areas were conducted in Turkey such as *educational sciences* (Arık & Türkmen, 2009; Karadağ, 2009; Özen, Gülaçtı, & Kandemir, 2006; Tavşancıl et al., 2010), *educational supervision* (Altınkurt, Demir, Akbaba Dağ, & Erol, 2010; Yılmaz, Dedeoğlu-Orhun, Kılıç-Şahin, & Bahar, 2010), *educational technologies* (Alper & Gülbahar, 2009; Göktaş, Arpacık et al., 2012), *educational administration* (Aydın, Erdağ, & Sarıer, 2010; Aydın & Uysal, 2011; Aypay et al., 2010; Balcı, 1988; Balcı & Apaydın, 2009), *science teaching* (Duit, 2007; Gürdal, Bakioğlu, & Öztuna, 2005; Sözbilir & Canpolat, 2006), *general educational sciences* (Bakioğlu & Kurnaz, 2011; Göktaş, Akçay et al., 2012), *maths teaching* (Sözbilir, Güler & Çiltaş, 2012; Yılmaz, 2011), *social sciences* (Erdoğan, 2001; Yücel-Toy & Güner-Tosunlar, 2007), *adult education* (Yıldız, 2004) and *other studies* (Sayın, 2008, 2010). In Periodical Publications Congresses in Social Sciences (2006, 2007, 2008, 2009b, 2010) organized by TÜBİTAK, this topic has also been a matter of discsussion.

According to Büyüköztürk and Kutlu (2006), among the biggest problems researchers in social sciences face is the development of research method. Erdoğan (2001) reached a similar conclusion and claimed that studies carried out in social sciences lack academic value and scientific validity, in terms of their aim, significance, theoretical framework, reasoned hypothesis, preparation and presentation of research, data collection method, statistical analysis, results and evaluation, reaching conclusions by creating links between basic elements composing a study. In his study, Sayın (2008) examined articles published after referee inspection and has claimed that studies selected lacked discipline, were imprecise, that researchers conduct and publish studies without having necessary competence and that referees selected to examine these articles also lacked necessary competence.

In their study that examined studies in educational administration, Balcı and Apaydın (2009) found out that most articles examined were on "reasons for leaders' behaviors" and followed by studies on "leader behaviors". Researchers used the scale 1-Too weak or none, 2-Weak, 3-Moderate and 4-Good in order to score the papers and also used Spearman's Rank Correlation coefficient to assess the coherence among researchers' evaluations. They found out that population-sample levels of papers in the sample were found to be at medium level; research designs were found to be predominantly quantitative in survey type; and that single reasoned factor/correlational techniques were mainly used as predictive statistical techniques in data analysis of papers selected.

Sayın (2010) examined articles in national refereed journals published between 1999-2007 in terms of mistakes in graphs, tables and presentations and concluded that statistical concepts were not used properly, or used interchangeably, but in a wrong way. He also found out that graphs were not prepared in accordance with the aim of studies, that the researchers faced difficulty in preparing summary tables for analyses; that they did not know how to conduct dependent and independent groups t tests, how to accept/reject hypothesises under specific conditions and that there were mistakes in indicating test results within the text. Yılmaz, Dedeoğlu-Orhun, Kılıç-Şahin, and Bahar (2010) tried to assess production of scientific knowledge in educational supervision area by looking at samples in educational journals and scientific meetings and revealed that two-third of articles on educational administration and four-fifth of proceedings were descriptive. They also showed, in their study, that though there were few articles in experimental design there were not any proceedings in experimental design; that there was a correlation between articles and proceedings based on their subjects; that the subject of one-fourth of both proceedings

and articles was "modern supervision". One striking finding was that the production of scientific knowledge on educational supervision in Turkey was decreasing in paralell with the world

In their study titled as "Examination of Articles Published in Scientific Journals on Educational Sciences", Arık and Türkmen (2009) tried to examine articles published in four journals published in Turkey on "Educational Sciences" and indexed in SSCI in terms of quality and quantity. Results of the study showed that subjects of most of the articles published in mentioned journals were educational technology. In their study that aimed to examine studies on educational technology published in SSCI journals based on Turkey, Göktaş, Arpacık et al. (2012) found out that teaching environments and technology were the most studied subjects in these studies; that quantitative methods were mostly used and survey model was the most resorted research design. They also indicated that researchers preferred to use scales as data colletcion tools, fit-for-purpose sample was mostly employed in selection of sample to be studied and descriptive analysis was most frequently used as data analysis method.

Göktaş, Akçay et al. (2012) also examined educational studies published in Turkish educational journals indexed by SSCI and ULAKBIM data bases in 2005-2009. Results showed that descriptive studies were mostly preferred in these articles and that science teaching, psychological guidance and counselling and maths teaching were the most frequently studied and published subjects. It was also revealed that while quantitative research methods were studied the most, scales, interest, attitude and personality test were data collection tools used frequently and descriptive statistics were used the most in data analysis.

One of the most comprehensive studies made on examination of scientific studies was carried out by Tavşancıl et al. (2010). In their study, they examined 666 Master and 186 PhD dissertations completed in Educational Sciences in accordance with their suitability to research methods and techniques. They have found out, in this study that most MA thesises were quantitative and were in survey model and that in cases when researchers selected a sample based on randomness from population, they did not present sufficent information regarding selection process. It was also found out that in dissertations, there were misconceptions and misuse of terms that define psychometric features of data collection tools, process of developing/adaptation of data collection tools, data collection process and sources of data collection.

As can be understood from the study examples summarized above, the number of studies examining and evaluating studies in Turkey is high and there has been an increase in this number recently. Results of these studies will guide studies to be conducted in the following years and will be very beneficial in terms of making up the deficiencies since one way to increase the quality of studies is to evaluate conducted studies and to put the deficiencies clearly. This study, within that context, aims to evaluate studies conducted in preschool education. Preschool education is an education grade that has gained increasing importance and the access to which is tried to be increased through various projects and campaigns in recent years. Preschool education was planned to be made compulsory until 2012, but although it was not made compulsory due to some changes in educational system (transition to 12-year compulsory education), it is importance is highly recognized. According to Ural and Ramazan (2007), the first six years of mankind are the years when development is the fastest, the most effective and also when interaction with environment is at the highest levels. Education in these years must be adjusted in accordance with pupils' characteristics and needs. The fact that education given in early years is not only beneficial for pupils and his/her family, but also for the whole community leads to the idea that each child must get education as early as possible.

Preschool education that is also defined as early childhood education is an education process that covers 0-6 years starting from birth until starting primary school. It aims to develop children in all aspects in accordance with social cultural values, to help children in reasoning process and develop their creativity by improving their emotional development and perception power that helps children to be committed to their national, spiritual, ethical, cultural and humanistic values. It also enables children to express themselves freeley, to have self-control and act independently (Taner-Derman & Başal, 2010). Looking at contributions of scientific studies, it is possible to see that education for a child must start from the moment of birth, that education given in family and school during early childhood period must be suitable to child's age and development level and that this education must be in a dynamic relationship with the sociocultural environment child lives in (Ural & Ramazan, 2007). Within that context, studies carried out

**Table 1.**
*Journals Included in the Sample*

| Indexed Journals in SSCI | Indexed Journals in ULAKBIM |
|---|---|
| 1. Eurasian Journal of Educational Research | 1. Ahi Evran University Journal of Kırşehir Education Faculty |
| 2. Education and Science | 2. Ankara University Journal of Faculty of Educational Sciences |
| 3. Energy Education Science and Technology Part B - Social and Educational Studies | 3. Erzincan University Faculty of Education Journal |
| 4. Hacettepe University The Journal of Education | 4. Çukurova University Faculty of Educational Journal |
| 5. Educational Sciences: Theory & Practice | 5. Elementary Education Online |
| 6. Turkish Online Journal of Educational Technology | 8. Inonu University Journal of The Faculty of Education |
| 7. Turkish Journal of Psychology | 6. Kastamonu University Kastamonu Education Journal |
| | 7. Pamukkale University Journal of Education |
| | 8. Journal of Turkish Educational Sciences |
| | 9. Journal of Uludag University Faculty of Education |

on preschool school education becomes more and more important as scientific studies are expected to guide educational reforms and shape educational applications. Scientific studies, in this sense, aims at finding reliable solutions, evaluating and interpreting findings (Erkuş, 2009). Keeping this in mind, there must be more widespread scientific studies aimed at explaining the importance of preschool education and improving the awareness level about its importance. In that sense, evaluation of state of available studies is very significant. However, there is not a single study examining preschool education studies in Turkey. This study, thus, aims to evaluate studies conducted on preschool education in Turkey in terms of subject and method. The following questions were tried to answer in order to attaing this goal:

1. How is the distribution of articles on preschool education published in educational journals in Turkey within SSCI and indexed in ULAKBİM in terms of subject?
2. What are deficiencies of aim, method, results and suggestions parts of articles on preschool education published in educational journals in Turkey within SSCI and indexed in ULAKBİM according to specified evaluation criteria?

## Method

This study is a qualitative study in document analysis type. Meta-analysis was used as the study aimed to evaluate articles published on preschool education area. Meta-analysis is an evaluation approach focusing on how the study was conducted rather than findings of the study (Fitzpatrick, Sanders, & Worthen, 2004). Meta analysis is a term used for evaluations designed to collect findings gathered from a series of evaluations. Meta analysis is used to emphasize the evaluation made in order to assess the performance of evaluators and/or the quality of evaluations (TÜBİTAK, 2009a).

### Population and Sample

The population of the study covers seven Turkey-based journals indexed in SSCI and 32 journals available in journal list of Educational Sciences in ULAKBIM Social and Human Sciences Database. Criteria sample method which is one of intentional sample techniques was used in the selection of sample (The year intervals of the journals selected in the sample is shown in Table 1).

When determining the journals available in journal list of Educational Sciences in ULAKBIM Social and Human Sciences Database, the criteria was that the journals reached an institutionalization level (For example, journals in which articles volumed in 2011 were not published in 2012 yet were included in the sample) and also that the journals were available online. Within that framework, based on the criteria above, all Turkey-based journals indexed in SSCI and 10 journals available in journal list of Educational Sciences in ULAKBIM Social and Human Sciences Database were included in the sample. The journals included in the sample shows in Table 1.

In data collection process, first, the published volumes of journals included in the sample were specified and the total numbers of articles in these volumes were calculated. Then, after analysis of each article, articles on preschool education were specified. Without considering the area of articles (subject training, program development, assessment and evaluation, educational administration etc.), all articles the subject or study group of which were preschool education were added to the sample. Articles on preschool education were classified into two as research articles and theoretical articles, and after exclusion of theoretical articles, research articles to be examined was determined. Articles selected were examined according to their subject, aim, method and results and suggestions

**Table 2.**
*Descriptive Statistics Regarding the Published Articles in Journals Indexed in the SSCI and ULAKBIM*

| Index | Journals | Years | Total Volume | Total Articles | Articles in the preschool education | | Research articles in the preschool education | |
|---|---|---|---|---|---|---|---|---|
| | | | | | f | % | f | % |
| *SSCI* | Eurasian Journal of Educational Research | 2007–2011 | 19 | 237 | 7 | 2.95 | 7 | 2.95 |
| | Education and Science | 2007–2011 | 20 | 277 | 6 | 2.16 | 4 | 1.44 |
| | Energy Education Science and Technology Part B - Social and Educational Studies | 2009–2011 | 12 | 88 | 3 | 3.40 | 1 | 1.13 |
| | Hacettepe University The Journal of Education | 2007–2011 | 10 | 308 | 8 | 2.59 | 8 | 2.59 |
| | Educational Sciences: Theory & Practice | 2007–2011 | 18 | 303 | 12 | 3.96 | 9 | 2.97 |
| | Turkish Online Journal of Educational Technology | 2008–2011 | 16 | 275 | 1 | 0.36 | 1 | 0.36 |
| | Turkish Journal of Psychology | 2002–2011 | 19 | 122 | 1 | 0.81 | 1 | 0.81 |
| | **TOTAL** | | **114** | **1610** | **38** | **2.36** | **31** | **1.92** |
| *ULAKBIM* | Ahi Evran University Journal of Kırsehir Education Faculty | 2002–2011 | 24 | 366 | 6 | 1.63 | 6 | 1.63 |
| | Ankara University Journal of Faculty of Educational Sciences | 2002–2011 | 18 | 240 | 3 | 1.25 | 3 | 1.25 |
| | Erzincan University Faculty of Education Journal | 2002–2011 | 20 | 211 | 1 | 0.47 | 0 | 0.00 |
| | Cukurova University Faculty of Educational Journal | 2002–2011 | 21 | 267 | 8 | 2.99 | 6 | 2.24 |
| | Elementary Education Online | 2002–2011 | 25 | 411 | 17 | 4.13 | 15 | 3.64 |
| | Inonu University Journal of The Faculty of Education | 2004–2011 | 15 | 132 | 3 | 2.27 | 2 | 1.51 |
| | Kastamonu University Kastamonu Education Journal | 2002–2011 | 23 | 409 | 10 | 2.44 | 6 | 1.46 |
| | Pamukkale University Journal of Education | 2002–2011 | 20 | 252 | 5 | 1.98 | 3 | 1.19 |
| | Journal of Turkish Educational Sciences | 2003–2011 | 36 | 288 | 2 | 0.69 | 1 | 0.34 |
| | Journal of Uludag University Faculty of Education | 2002–2011 | 18 | 269 | 3 | 1.11 | 2 | 0.74 |
| | **TOTAL** | | **220** | **2845** | **58** | **2.03** | **44** | **1.54** |

titles. In the examination, "Evaluation Criteria in Social Sciences" that is developed by Gay and Airasian (2000) and adapted by Kırcaali-İftar (2005) was improved and used in this study. For example, new categories were added as needed. A coding key was developed first in order to evaluate articles based on these criteria. It was observed that while adding articles into coding key, some studies fell into more than one category. For example, in cases when more than one or different data collection tools were used in the same article, these tools were coded in a different category. For example, categories such as "Test +Scale" or "Questionnaire/Scale +Interview" were developed.

Selection of articles included in the sample, classification of articles according to their subjects and examination process of articles included in evaluation based on cited criteria were made by researchers separately. Articles in which differences were seen in evaluation were further discussed and a consensus was reached. Thus, the reliability in article selection and data entry process was meant to increase. Articles selected in the study were analyzed through categorical analysis and frequency analysis that are among the content analysis techniques. Also, data collected and data collection procedure was reported in detail and the way results were gained was explained in detail.

**Table 3.**
*The Distribution of Subjects of Articles*

| | Subject | SSCI | ULAKBİM | TOTAL |
|---|---|---|---|---|
| | | *f* | *f* | *f* |
| *Teaching in Preschool Education Grade* | Language + Foreign Language | 4 | 3 | 7 |
| | The game in preschool education | 3 | 4 | 7 |
| | Science Teaching + Enviroment | 1 | 6 | 7 |
| | Preschool education program/Importance/ Development | 2 | 4 | 6 |
| | Preparing for the next academic degree | 5 | - | 5 |
| | New approaches to pre-school education | 2 | 1 | 3 |
| | Integration | 1 | 2 | 3 |
| | Use of material | 1 | - | 1 |
| | Music and visual arts | - | 5 | 5 |
| | Drama | - | 2 | 2 |
| | Teaching mathematics | - | 2 | 2 |
| | History - Geography | - | 1 | 1 |
| | Guidance to preschool education | - | 1 | 1 |
| | Preschool transition skills | - | 1 | 1 |
| | **TOTAL** | **19** | **32** | **51** |
| *Students or Kids* | Social-emotional skills / behavior | 3 | 4 | 7 |
| | Behavior problems / Misbehaviors | 2 | 2 | 5 |
| | Cognitive development | 1 | 1 | 2 |
| | Peer relationships | 1 | - | 1 |
| | Thinking skills | 1 | - | 1 |
| | Knowledge of basic relational concepts | 1 | - | 1 |
| | Violance | - | 1 | 1 |
| | Peace value in early childhood period | - | 1 | 1 |
| | **TOTAL** | **9** | **9** | **18** |
| *Teachers* | Opinions of preschool teachers' to various topics | 2 | 9 | 11 |
| | Use of computer | 1 | 1 | 2 |
| | Ethic | 1 | 1 | 2 |
| | Professional development | 1 | - | 1 |
| | **TOTAL** | **5** | **11** | **16** |
| *Preschool Edcuation Institutions* | Preschool edcuation institutions and their environment | 3 | 1 | 4 |
| | Home-school cooperation | 3 | 4 | 7 |
| | **TOTAL** | **6** | **5** | **11** |
| *Teacher Education* | Teacher training programs/ Teacher candidates | 1 | 3 | 4 |
| | **TOTAL** | **1** | **3** | **4** |

**Limitations**

This study is limited to articles on preschool education published in journals specified. Evaluations of articles were limited to subject, aim, method and results and suggestions dimensions. Research (emphirical) articles were included in evalution based on these dimensions. Articles in this study were not examined in terms of detailed methodology (for example, suitability of statistics used or sample selected etc.). Findings should be considered by considering this.

## Findings

This part includes findings gathered as a result of examination of articles on preschool education under categories such as journals where articles were published, subject, aim and sub aims, type, model, method (research model, population and sample, data collection tool and analysis techniques), results and suggestions. Findings related to distribution of journals in which articles on preschool education were published are provided in Table 2.

As illustrated in Table 2, 1610 articles were published in 114 volumes of seven Turkey-based SSCI indexed journals, 2845 articles were published in 220 volumes of 10 ULAKBIM indexed journals. While 31 (1.92%) of 38 (2.36%) of articles on preschool education published in SSCI indexed journals were research articles; 44 (1.54%) of 58 (2.03%) preschool education articles published in ULAKBIM indexed journals were research articles. This shows that more articles on preschool education were published in SSCI indexed journals. Among SSCI indexed journals, most articles (3.96%) and research articles (2.97%) on preschool education were published in Educational Science: Theory and Practice journal. Among ULAKBIM indexed journals, most articles (4.13%) and research (3.64%) on preschool education were published in Elementary Education Online journal. Table 3 illustrates the distribution of subjects of articles published in journals mentioned above.

As can be observed in Table 3, based on their subject, articles were classified according to general titles such as "Teaching in Preschool Education Grade, Students or Kids, Teachers, Preschool Edcuation Institutions and Teacher Education". Based on this, it can be seen that predominant matters of discussion were teaching related subjects in preschool education grade in SSCI indexed journals (f=19) and ULAKBİM indexed journals (f=32). It was also observed that language teaching (f=7), games (f=7) and science teaching (f=7) were the subjects studied most within these articles. Looking at the studies, it can be seen that the following most studied subject is various characteristics of "preschool education students or kids". 9 articles related to this subject were published in SSCI indexed journals and 9 articles were published in ULAKBİM indexed journals. Table 4 shows analyses related to aims and sub aims of the articles examined.

**Table 4.**
*The Findings Related to Aims and sub Aims of the Articles*

| Evaluation Criteria | | SSCI | ULAKBİM | TOTAL |
|---|---|---|---|---|
| | | *f* | *f* | *f* |
| *Aim of the study* | Descripted | 29 | 42 | 71 |
| | Non descripted | 2 | 2 | 4 |
| *The aim reflect variables* | Reflected | 15 | 18 | 33 |
| | Not reflected | 16 | 26 | 42 |
| *The study has sub-aim* | İncluded | 12 | 16 | 28 |
| | Not include | 19 | 28 | 47 |
| *Relationship between bub aim and the aim* | Related | 12 | 16 | 28 |
| | Non related | 0 | 0 | 0 |

As can be observed in Table 4, the aim of the study was provided in most articles (f=71). However, aim of the study was not given clearly in four phases. The aim of the study can only be grasped by reading between the lines in these studies. In most studies (f=42) in which aim of the study was provided, the term "aim" did not reflect variables related to the study. Aim of the study in these studies was given as a general expression and then related variables were given as sub aims. While 28 studies reached had sub aims, 47 of them did not include sub aims. All sub aims (f=28) were related to the aim. Evaluations regarding variables such as type of articles, model and type of data used in examined articles are provided in Table 5.

**Table 5.**
*The Findings Related to Model and Type of Data Used in Examined Articles*

| Evaluation Criteria | | SSCI | ULAKBİM | TOTAL |
|---|---|---|---|---|
| | | *f* | *f* | *f* |
| *Article Type* | Theoretical Research | 7 | 15 | 22 |
| | Descriptive Research | 27 | 41 | 68 |
| | Experimental Research | 4 | 3 | 7 |
| *Research Model* | Provided | 20 | 26 | 46 |
| | Non provided | 11 | 18 | 29 |
| *Data Gathering Tools* | Quantitative | 24 | 33 | 57 |
| | Qualitative | 7 | 8 | 15 |
| | Quantitative + Qualitative | 0 | 3 | 3 |

Table 5 shows that most articles (f=68) related to preschool education are descriptive studies fol-

**Table 6.**
*The Findings Concerning Population and Sampling in the Articles*

| Evaluation Criteria | | SSCI | ULAKBİM | TOTAL |
|---|---|---|---|---|
| | | *f* | *f* | *f* |
| *Population* | Provided | 5 | 11 | 16 |
| | Non provided | 22 | 29 | 51 |
| | Not made in the population | 4 | 4 | 8 |
| *Samples* | Provided | 12 | 16 | 28 |
| | Non provided | 3 | 1 | 4 |
| | Did not take a sample (study group, experiment-control groups etc.) | 16 | 27 | 43 |
| | Sample technique was provided | 11 | 18 | 29 |
| | Not any information regarding sample technique | 17 | 26 | 43 |
| *Study Groups* | Kids (3-6 age groups) | 14 | 14 | 28 |
| | Preschool teachers | 8 | 17 | 25 |
| | Preschool teacher candidates | 2 | 6 | 8 |
| | Families | 4 | 2 | 6 |
| | Preschool teachers+ Families | 2 | 1 | 3 |
| | Preschool Edcuation Institutions | 1 | - | 1 |
| | University student | - | 1 | 1 |
| | Preschool teacher candidates +Insructor | - | 1 | 1 |
| | School administrators | - | 1 | 1 |
| | Teachers + Teacher candidates | - | 1 | 1 |

lowed by theoretical studies (f=22) and experimental studies (f=7). While in most studies examined (f=46), information related to research method were given, there were studies (f=29) with no information about research model. Most studies (f=57) were quantitative based on data used. Though few in number, there were studies using qualitative data (f=15) and using both quantitative and qualitative data (f=3). Findings related to groups studied and population-sample in the articles examined are displayed in Table 6.

As illustrated in Table 6, a vast majority of studies (f=51) examined included no information on population of the study. It was seen that in studies in which information regarding population was provided, sample was well explained. In all studies examined, sample was specified in 28 studies, while in 4 studies there was not any explanation on sample. There were many experimental studies that did not take a sample (f=43) and, instead, focused on experiment-control groups and also qualitative studies in which participants were determined. Also, there appeared to be various studies with a "study group" despite having a quantiative design. In this new approach that is seen frequently in many studies recently, researchers only explain that study is conducted on a study group without mentioning any population or sample at all. However, in these studies, there was not any information (f=43) regarding sample technique or sample size to show how study group was determined.

Study group of majority of studies related to preschool education were kids (f=28) and preschool teachers (f=25). Teacher candidates (f=8) and families (f=6) were also among the study groups. There were a few studies (f=3) asking for opinons of both preschool teachers and families. Table 7 shows findings related to analysis techniques used and also information related to data collection tool, reliability and validity of studies examined.

As illustrated in Table 7, questionnaires were used as data collection tool in majority of studies (f=39) examined. Interview forms (f=16), tests (f=12) and observation forms (f=4) were also used as data collection tools. There was information related to validity in 34 studies and information related to reliability in 43 studies. However, there were 24 studies including no information related to validity and 15 studies with no information related to reliability. In general, information was not given related to validity while there was information related to reliability.

Analysis techniques of studies revealed striking findings. In 14 of studies, parametric statistics were used while in 8 studies, non-parametric statistics were used and this information was mentioned in

**Table 7.**
*The findings Related to Data Collection Tool, Reliability-Validity and Analysis Techniques in the Articles*

| Evaluation Criteria | | | SSCI | ULAKBİM | TOTAL |
|---|---|---|---|---|---|
| | | | *f* | *f* | *f* |
| *Data collection tools* | Questionnaires/Scale | | 12 | 27 | 39 |
| | Interview forms | | 7 | 9 | 16 |
| | Tests | | 8 | 4 | 12 |
| | Observation forms | | 2 | 2 | 4 |
| | Checklist | | 1 | 0 | 1 |
| | Test + Scale | | 1 | 0 | 1 |
| | Questionnaires/Scale + Interview forms | | 0 | 1 | 1 |
| | Data collection tool is not use | | 0 | 1 | 1 |
| *Information on Validity* | Yes | | 14 | 20 | 34 |
| | No | | 9 | 15 | 24 |
| | Data collection tool is not use | | 8 | 9 | 17 |
| *Information on Reability* | Yes | | 20 | 23 | 43 |
| | No | | 3 | 12 | 15 |
| | Data collection tool is not use | | 8 | 9 | 17 |
| *Analysis techniques* | Qualitative Analysis | | 5 | 8 | 13 |
| | Quantitative + Qualitative Analysis | | 0 | 2 | 2 |
| | Descriptive Statistic | | 5 | 4 | 9 |
| | Predictive Statistical Techniques | Parametric | 14 | 0 | 14 |
| | | Non-parametric | 8 | 0 | 8 |
| | | Parametric + Non-parametric | 2 | 0 | 2 |
| | No information. But it can be derived from studies (Parametric) | | 5 | 5 | 10 |
| | No information. But can be only derived from studies (Non-parametric) | | 1 | 0 | 1 |
| | No information. But can be only derived from studies (Quantitative + Qualitative Analysis) | | 0 | 1 | 1 |
| | The statistic does not use | | 1 | 0 | 1 |

studies. Although parametric statistiscs were used in 10 studies, there was no information related to this in studies. These findings can be only derived from an analysis of studies. In 6 studies in which parametric analysis were used, non-parametric analysis should have been used, but parametric analyses were used, instead. However, these studies did not include any information about testing the normality of distribution. Table 8 shows findings gathered as a result of evaluations of results and suggestions part of articles examined.

As can be observed in Table 8, research results of all studies examined (f=75) were provided. Although title "results" was replaced by "discussion"

**Table 8.**
*The Findings Related to Results and Suggestions in the Articles*

| Evaluation Criteria | | SSCI | ULAKBİM | TOTAL |
|---|---|---|---|---|
| | | *f* | *f* | *f* |
| *Results* | Research results examined were provided | 31 | 44 | 75 |
| | Research results parallel with research aims | 27 | 34 | 61 |
| | Research results not parallel with with research aims | 4 | 10 | 14 |
| *Suggestions* | The study has suggestions | 27 | 38 | 75 |
| | Suggestions parallel with with research result | 18 | 21 | 39 |
| | Suggestions not parallel with with research result | 9 | 17 | 26 |
| | Suggestions were towards practice | 26 | 32 | 58 |
| | Suggestions are not towards practice | 1 | 6 | 7 |
| | Suggestions were towards for researchers. | 13 | 13 | 26 |
| | Suggestions are not for researchers. | 14 | 25 | 39 |

title, results of studies can be discerned from these parts, too. While research results matched up with research aims in 61 studies, in 14 studies results did not match up with research aims. These studies included results that were not gathered from studies and they were written as a result of interpretations of findings by researchers. Accordingly, it was found out that a most suggestions (f=26) included in all studies examined (f=75) did not match up with research results. Suggestions not matching up with results were written based on general problems of educational system. Suggestions in 58 studies examined were towards practice while 26 of them were for researchers. It was also revealed that in studies in which suggestions were developed, generally, suggestions towards practice were developed, and that suggestions for further research that could guide researchers were not included in studies (f=39).

**Results and Discussion**

The aim of this study is to conduct a general evaluation of articles related to preschool education. Educational Sciences: Theory & Practice is the SSCI indexed journal and Elementay Education Online is ULAKBIM indexed journal where most articles on preschool education are published. Subjects related to education in preschool education grade were the most discussed subjects in articles examined. Language teaching, games and science teaching were also focus of research in most of these studies.

Aim of study was generally clearly explained in articles examined, but expressions related to aim were mostly not written in a way to include variables. The majority of studies did not have sub aims. In studies with sub aims, sub aims were interrelated to aims of studies. In their research in which they studied 88 articles written on linguistics, Huber and Uzun (2000) pointed out that 24 articles they examined did not include aim, subject and problem in introduction part and that these points were touched upon in the following parts of research. Sub problems/aims were not written in most studies conducted in Turkey and abroad in health, science and social sciences (Sönmez, 1999). Kozak (2006) claimed that "expression of problem and aim of the study" in an article is "important" for editors and referees in Turkey, while it is "very important" for international editors and referees. Based on this, it could be noted that the expression of problem and aim of the study is very important for an article to be published especially in an international journal. Within that context, the reason why research is going to be carried out, the problem it will try to find a solution for and the benefit it will bring must be explained briefly in a paragraph without any exaggeration. However, the interesting fact is that while generally aim is written in studies, these principles are not followed (Sönmez, 1999).

Most of the studies accessed during the current study were descriptive studies. There were a few experimental and theoretical studies, too. It was also found out that, though unrelated to preschool education, most previous studies conducted (Altınkurt et al., 2010; Arık & Türkmen, 2009; Balcı & Apaydın, 2009; Göktaş, Akçay et al. 2012; Göktaş, Arpacık et al. 2012; Karadağ, 2009; Yıldız, 2004; Yılmaz et al., 2010) were also descriptive. However, there has been an increase in number of qualitative studies in recent years (Aypay et al., 2010; Bakioğlu & Kurnaz, 2011; Göktaş, Arpacık et al. 2012; Yıldırım, 2010; Yılmaz et al., 2010).

Information related to research model in most articles examined in the current study was generally given but there was not any information related to model in some studies. Some studies carried out before (Ağaoğlu et al., 2005, 2008; Büyüköztürk & Kutlu, 2006; Erdoğan, 2001, 2006; Köklü & Büyüköztürk, 1999; Sönmez, 1999; Strasak, Zaman, Pfeiffer, Göbel, & Ulmer, 2007; Şimşek & Altınkurt, 2007) also showed that there was not sufficient information related to research model and that the reason why a specific research model was preferred was not explained. However, the reason why research type is specifically preferred among others must be briefly explained (Erdoğan, 2001). In paralell with the fact that most studies examined were descriptive studies, quantitative data were used in most studies. Quantitative data were used more in previous research (Arık & Türkmen, 2009; Aydın, Erdağ, & Sarıer, 2010; Göktaş, Akçay et al. 2012; Göktaş, Arpacık et al. 2012; Yıldız, 2004; Yılmaz et al., 2010).

Yılmaz et al. (2010) pointed out that the reason behing lack of qualitative research could be due to the fact that quantitative studies are more likely to be published than qualitative data on account of dominance of positivist paradigm in educational journals in Turkey. Positivist paradigm that has a big influence on social sciences and educational sciences has a big effect on this situation, because positivist paradigm has accepted quantitative method in research as indispensable since the birth of sociology and psychology that are the most important sciences emerged at the beginning of 20th century

(Şimşek, 1997). According to Aydın, Erdağ and Sarıer (2010), when results of articles produced in Turkey are analysed, it will be clearly observed that knowledge is produced especially under the influence of positivist paradigm. Results show that studies are generally conducted so as to test practical applications. However, positivism is critised on account that it has no basis in predicting future, that it takes measurability as basic criterion for knowledge and that it focused on objectivity (Şaylan, 1999). These criticisms led to more frequent use of qualitative design rather than quantitative design. Thus, it could be seen that most studies conducted abroad use qualitative methods as opposed to research methods employed more frequently in Turkey. There is a considerable amount of reserach carried out through a mixed method, using both quantitative and qualitative methods together abroad, which is not so common in Turkey (Aydın, Erdağ, & Sarıer, 2010). It could be predicted that, in the long run, quantitative-qualitative research balance will be maintained and that the number of mixed research types, used frequently abroad in which both quantitative and qualitative data are used and which is not so common in Turkey, will increase in Turkey, too (Yılmaz et al., 2010).

Information related to population and sample was generally given in articles, but "participants and study group" titles were used in majority of articles instead of sample. There was no information regarding how study group or sample size was determined. According to research titled as "Method Problem in Social Sciences Research" conducted by Büyüköztürk and Kutlu (2006) who reached journal editors, one of the most frequent method problems they faced was the negligence in explaining definitions of population/sample and sample method. This situation was pointed out in previous research (Altınkurt, 2007; Arık & Türkmen, 2009; Aypay et al., 2010; Balcı & Apaydın, 2009; Başol, 2006; Erdoğan, 2001; Yücel-Toy & Güner-Tosunlar, 2007). No information was provided about characteristics and demographic features of population and sample in the studies. However, this type of information is very significant for a reader/researcher to consider the study from this perspective (Fraenkel & Wallen, 2003).

There was not any information regarding representation rate of sample in the articles examined. However, parametric claims in survey research depend on whether the sample is representative or not in reality (Erdoğan, 2001). If sample is not appropriate, research conducted becomes suspicious no matter how important research problem is or how well the following phases are designed (Erkuş, 2009). Thus, aim of study, research problem and variables must be taken into account when determining population and sample in studies. Considering that sample is taken with the aim of generalization of findings gathered from sample to population, it could be said that the most important feature of sample is to be impartial and its rate of representing population. In that sense, target sample must be defined in studies and it must be selected using a suitable sample technique. As also noted by Yücel-Toy and Güner-Tosunlar (2007), in most studies carried out in social sciences, instead of reaching groups that can precisely represent population, individuals that can easily be reached by researchers are taken as sample which can be clearly seen from use of titles such as study groups or participants instead of population-sample.

Kids and preschool teachers were the groups most selected as sample in articles examined during the current study. Previous research (Göktaş, Akçay et al. 2012; Göktaş, Arpacık et al. 2012) reached similar findings and this has caused studies in Turkey to resort to specifying subjects and problems rather than providing solution proposals. This situation also causes increase in number of descriptive studies since descriptive studies generally aim to determine opinions, attitudes or beliefs of any group related to any subject. When articles are analyzed in terms of method parts, it could be observed that method parts are not well-written. Though "how the study will be conducted" need to be written in detail in method part, it is seen that this part is considered simplistically. However, scientific knowledge is verifiable and falsifiable knowledge (Karasar, 1994). That is why, when reporting research, population and its characteristics, information related to reliability and validity of scale use, information related to analysis techniques and reasons must be included in research report fully and precisely. After all, whether a research is scientific depends on validity of the research and statistical methods used in that study (Erkuş, 2004) and every phase of a research process is as important. Lack of any circle in the process of scientific research or mistakes it includes will cause the all other following phases to be defective and deficient (Erkuş, 2009).

As data collection tools, questionnaire/scale, interview form and tests were used the most in articles examined. As most studies carried out were in survey model, questionnaire/scale was used more fre-

quently. Terms questionnaire and scale were used interchangeably in articles examined. According to Erkuş (2009), since, different from scales, questionnaires are data collection tools that aim to collect data related to more than one characteristics of an individual, it is not possible to talk about a total score and reliability or validity as in scales. Therefore, defining scales as questionnaires is not right. Aiken (1997) notes that questionnaires consist of questions that reflect measures in classification level and questions that are gathered through use of categories answers to which are discontinuous rather than continuous. It could be said that questions in these types of questionnaires are independent and aim to measure separate events (cited in Büyüköztürk, 2005). Questionnaires, in that sense, are, to some extend, structured written interview technique or tool used with the aim of collecting data related to more than characteristic of an individual (Erkuş, 2009). Data collection tools used in studies examined are generally tools that can be defined as scales aiming at determining opinions, attitudes or beliefs of participants on a certain topic. Thus, using the term questionnaire for these scales may not be right.

While information related to reliability is generally given in the studies, less information is given related to validity. That sufficient information is not given related to reliability and validity of data collection tools used in studies is a common problem (Ağaoğlu et al., 2008; Hall, Ward, & Comer, 1988; Şimşek & Altınkurt, 2007). Aypay et al. (2010) also pointed out in their study that reliability and validity of studies were mostly not stated. Korkmaz (2010) examined 444 thesises with 324 of them being MA thesises and 120 being PhD thesises and found out that reliability analysis was not made in every 1 out of 5 thesises that is, in 21% of thesises. According to Büyüköztürk and Kutlu (2006), necessary analysis of measurement tools in social sciences was not made; Cronbach's Alpha was found to be sufficient and there was almost no information related to discussion on validity. Korkmaz (2010) also found out that the most frequently used reliability prediction method was Cronbach's Alpha. However, reliability and validity are among two most important characteristics needed to be present in a measurement scale and in a good measurement. Validity is the rate of measurement of a thing to measured; that is, it is the level of a measurement scale serving the purpose and it is very important in terms of findings gathered. Considering that Reliability is consistency of independent measurements of a thing to be measured, it is the first condition for a measurement to be counted as valid (Karasar, 1994).

Parametric analyses were mostly used in articles reached within the scope of this study. Though not related to preschool education, previous research (Altınkurt et al., 2010; Balcı & Apaydın, 2009; Yılmaz et al., 2010) also revealed that parametric analyses were used frequently. While some studies contained information regarding analyses executed, some did not provide any information, at all. Information regarding analyses made can be indirectly derived from the articles.

Parametric analyses were made in some articles examined in the current study when non-parametric analyses needed to be used. Although in order for parametric analyses to be used in a study, there are some conditions such as that data must show a normal distribution, variances must be homogen, units comprising sample must be selected from population impartially and must be indepenendent from each other and sample size must not be less than 10 (Ural & Kılıç, 2005), in some sources it must not be less than 30 (Erkuş, 2009; Yılmaz & Yılmaz, 2005), there was not any report in articles related to these conditions.

Büyüköztürk and Kutlu (2006) stated that in 89 % of quantitative studies they examined, there was not any type of information about assumptions of statistiscs and about whether these assumptions were realized or not. It was also found out that in studies examined, either wrong type of statistics were chosen or weak statistis were used in cases when stronger statistics were needed (Büyüköztürk & Kutlu, 2006).

As can be seen, knowing which statistical analyses will be made on data collected is not sufficient. What is important is to know which analysis should be used in specific situations, why it should be used and how the results will be interpreted (Erkuş, 2009). Although parametric analyses are more frequently prefferred since they generally generate stronger and more sensitive results (Ural & Kılıç, 2005), it is observed that in social sciences studies, either too simplistic methods are applied or that researchers do not have a full command on complicated methods used in studies (Büyüköztürk & Kutlu, 2006). As a result of his examinations, Sayın (2010) also concluded that researchers used some terms interchangeably since they did not know statistical terms well enough, that they did not know the reasons why they used tests they applied in their studies adequately, they experienced difficulties in tabulating the results of statistical analyses,

they found it hard to interpret tables, faced problems is showing the significance of values gathered as a result of analyses made and they did not have necessary statistical knowledge.

Despite problems related to analyses, all articles included results and suggestions. But, results and suggestions included in some studies did not macth up with research findings. Sönmez (2005) pointed out that few studies contained suggestions, but these suggestions were not useful suggestions. General assumptions known by everybody were put forward as solutions. In that sense, it could be observed that in most educational studies in Turkey, suggestions such as organizing in-service training activities and inclusion of that subject into teacher education curriculum are provided. In fact, suggestions must be new, original, solution-based and viable (Sönmez, 2005).

When suggestions towards practice were put forward in articles, suggestions for researchers were generally not included. This finding is supported by findings of previous research (Yılmaz et al., 2010). However, writing suggestions for researchers is important in terms guiding research to be conducted in future because research suggestions are to determine new research areas thought to contribute to solution of problems in the light of new knowledge gathered and new situation emerged (Karasar, 1994).

When articles published in Turkey-based journals indexed in SSCI and articles published in journals indexed in ULAKBIM are analyzed, it can be seen that there are not significant differences in terms of subject, aim, method or other parts of articles. Similar subjects were studied in both group journals; similar models and data collection tools were used; similar samples were studied and similar analyses were executed. However, in articles published in Turkey-based journals indexed in SSCI, method part of articles were written in a more detailed way than in articles published in journals indexed in ULAKBIM

According to results gathered; aims and method parts of articles must be better expressed. Following suggestions can be given in that sense: Parts of articles such as model, population, sample, analysis must be written in a more detailed way and more clearly. Articles must be reported in such a way that there should not be any question left in any reader's mind and in a way to provide all details to a person who wants to replicate the same study. Repetition of these kinds of meta-analysis evaluations in intervals will be beneficial in terms of showing the developments and trends in the area. These types of studies could be conducted not only on a specific science branch, but also as studies including specific research subjects. Also, studies focusing on longer time periods, studies examining post-graduate thesises or studies or comparison of articles published in international journals and articles published in Turkey could be carried out.

All articles examined in this study were articles that passed editorial and referee process. In that sense, problems available with these articles could be regarded as serious problems. In order for increase in quality to be ensured, in addition to quantitative increase in science production in Turkey, referees could be made more sensitive in evaluation process by putting more detailed article evaluation criteria.

**References**

Ağaoğlu, E., Altınkurt, Y., Ceylan, M., Kesim, E., & Madden, T. (2008). *Okul yönetimi alanında yapılmış araştırmaların değerlendirilmesi.* Eskişehir: Anadolu Üniversitesi Yayınları.

Ağaoğlu, E., Ceylan, M., Kesim, E., Madden, T., & Altınkurt, Y. (2005, September). *Okul yönetimi ile ilgili lisansüstü tezlerin incelenmesi*. Paper presented at the II. Lisansüstü Eğitim Sempozyumu'nda, Marmara Üniversitesi, İstanbul.

Alper, A., & Gülbahar, Y. (2009). Trends and issues in educational technologies: A review of recent research in TOJET. *Turkish Online Journal of Educational Technology – TOJET, 8* (2), Article 12. Retrived March 5, 2012, from http://www.tojet.net/articles/v8i2/8212.pdf.

Altınkurt, Y., Demir, S., Akbaba Dağ, S., & Erol, E. (2010). Türkiye'de eğitim denetimi alanında yapılan lisansüstü öğretim tezlerin değerlendirilmesi. In *II. Uluslararası Katılımlı Eğitim Denetimi Kongresi* (pp. 574–582). Dumlupınar Üniversitesi Eğitim Fakültesi & TEMSEN.

Arık, R. S., & Türkmen, M. (Mayıs 2009). Eğitim bilimleri alanında yayınlanan bilimsel dergilerde yer alan makalelerin incelenmesi. *I Uluslararası Türkiye Eğitim Araştırmaları Kongre Kitabı*. Retrived January 10, 2012, from http://www.eab.org.tr/eab/oc/egtconf/pdfkitap/pdf/488.pdf.

Aydın, A., & Uysal, Ş. (2011). Türkiye'de ve yurt dışında eğitim yönetimi alanında yapılan doktora tezlerinin konu, yöntem ve sonuçlar açısından değerlendirilmesi. *Eurasian Journal of Educational Research, 42*, 1–14.

Aydın, A., Erdağ, C., & Sarıer, Y. (2010). Eğitim yönetimi alanında yayınlanan makalelerin konu, yöntem ve sonuçlar açısından karşılaştırılması. *Eurasian Journal of Educational Research, 39*, 37–58.

Aypay, A., Çoruk, A., Yazgan, A. D., Kartal, O.Y., Tunçer, B., Attila, S. M. et al. (2010). Eğitim yönetimi araştırmalarının durumu: eğitim yönetimi dergilerinin analizi, 1999–2007. *Eurasian Journal of Educational Research, 39*, 59–77.

Balcı, A. (1988). Eğitim yönetimi araştırmalarının durumu: EAQ'de 1970–1985 arasında yayınlanan araştırmalar. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 21* (1), 421–434.

Balcı, A., & Apaydın, Ç. (2009). Türkiye'de eğitim yönetimi araştırmalarının durumu: kuram ve uygulamada eğitim yönetimi dergisi örneği. *Kuram ve Uygulamada Eğitim Yönetimi, 15* (59), 325–343.

Başol, G. (2006, Septemer). *2001–2006 yılları arasında Türkiye'de eğitim alanında belli başlı indeksli dergilerde yayımlanan araştırma makalelerinin metodolojik bakımdan değerlendirilmesi.* Paper presented at the XV. Ulusal Eğitim Bilimleri Kongresi, Muğla Üniversitesi, Muğla.

Büyüköztürk, Ş. (2005). Anket geliştirme. *Türk Eğitim Bilimleri Dergisi, 3* (2), 133–151.

Büyüköztürk, Ş., & Kutlu, Ö. (2006). Sosyal bilim araştırmalarında yöntem sorunu. In *Sosyal Bilimlerde Süreli Yayıncılık–2006-I. Ulusal Kurultay Bildirileri* (pp. 113–122). Ankara: TÜBİTAK Yayını.

Duit, R. (2007). Science education research internationally: Conceptions, research methods, domains of research. *Eurasia Journal of Mathematics, Science & Technology Education, 3* (1), 3–15.

Erdoğan, İ. (2001). Sosyal bilimlerde pozitivist-ampirik akademik araştırmaların tasarım ve yöntem sorunları. *Anatolia: Turizm Araştırmaları Dergisi, 12* (2), 119–134. Retrived January 10, 2012, from http://www.anatoliajournal.com/atad/depo/dergiler/Cilt12_Sayi2_Yil2001_1304946108.pdf.

Erdoğan, İ. (2006). *Yönetimsel araştırmalarda süregelen sorunlar: TRT araştırmaları örneği.* Retrived February 15, 2012, from http://www.irfanerdogan.com/makaleler1/trt2006.pdf.

Erkuş A. (2004). Bazı tıp dergilerinin son sayılarındaki makalelerin yöntemsel ve istatistiksel açıdan incelenmesi. *Mersin Üniversitesi Tıp Fakültesi Dergisi, 5* (2), 176–181.

Erkuş, A. (2009). *Davranış bilimleri için bilimsel araştırma süreci.* Ankara: Seçkin Yayıncılık.

Fitzpatrick, J. L., Sanders, J. R., & Worthen B. R. (2004). *Program evaluation: alternative approaches and practical guidelines.* Boston: Pearson.

Fraenkel, J. R., & Wallen, N. E. (2006). *How to design and evaluate research in education.* New York: McGraw-Hill.

Gay, L. R., & Airasian, P. W. (2000). *Educational research: competencies for analysis and applications.* Englewood Cliffs, NJ: Prentice Hall.

Göktaş, Y., Akçay, A., Hasançebi, F., Bayrak, N., Varışoğlu, B., Sözbilir, M. et al. (2012). Türkiye'deki eğitim araştırmalarında eğilimler: bir içerik analizi. *Kuram ve Uygulamada Eğitim Bilimleri, 12* (1), 443–460.

Göktaş, Y., Arpacık, Ö., Yıldırım, G., Aydemir, M., Küçük, S., Telli, E. et al. (2012). Türkiye'de eğitim teknolojileri araştırmalarındaki eğilimler: 2000–2009 dönemi makalelerinin içerik analizi. *Kuram ve Uygulamada Eğitim Bilimleri, 12* (1), 177–199.

Huber, E., & Uzun, G. L. (2000). Dilbilim alanında yazılan bilimsel metinler üzerine gözlemler. In A. S. Özsoy & E. E. Taylan (Eds.), *XIII. Dilbilim kurultay bildirileri* (pp. 201–215). İstanbul: Boğaziçi Üniversitesi Yayınevi.

Karadağ, E. (2009). *Türkiye'de eğitim bilimleri alanında yapılmış doktora tezlerinin tematik ve metodolojik açıdan incelenmesi: Bir durum çalışması.* Unpublished doctoral dissertation, Marmara Üniversitesi, Eğitim Bilimleri Enstitüsü, İstanbul.

Karasar, N. (1994). *Bilimsel araştırma yöntemi.* Ankara: 3A Araştırma Eğitim Danışmanlık.

Kırcaali-İftar, G. (2005). *Sosyal bilimler araştırmalarını değerlendirme ölçütleri* (Yayınlanmamış Araştırma Raporu). Eskişehir: Anadolu Üniversitesi.

Köklü, N., & Büyüköztürk, Ş. (1999). Eğitim bilimleri alanında öğrenim gören lisans-üstü öğrencilerin araştırma yeterlikleri konusunda öğretim üyelerinin görüşleri. *Eğitim ve Bilim, 23* (112), 18–28.

Korkmaz, A. (2010). *Vahit Bademci'nin paradigma değişikliği üzerine bir araştırma: Testler değil, ölçümler güvenilirdir.* Yayınlanmamış master's thesis, Zonguldak Karaelmas Üniversitesi, Sosyal Bilimler Enstitüsü, Zonguldak.

Kozak, N. (2006). Türkiye'de ve dünyada dergi editörlüğü ve hakemlik sistemi. In *Sosyal Bilimlerde Süreli Yayıncılık-I. Ulusal Kurultay Bildirileri* (pp. 53–62). Ankara: TÜBİTAK Yayını.

Özen, Y., Gülaçtı, F., & Kandemir, M. (2006). Eğitim bilimleri araştırmalarında geçerlik ve güvenirlik sorunsalı. *Erzincan Eğitim Fakültesi Dergisi, 8* (1), 69–89.

Sargut, A. S. (2006). Buluşsal arayış ya da sav: Bilimsel makale niteliği üzerine düşünceler. In *Sosyal Bilimlerde Süreli Yayıncılık–I. Ulusal Kurultay Bildirileri* (pp. 101-112). Ankara: TÜBİTAK Yayını.

Sayın, S. (2008). Bilimsel araştırmalarda yapılan istatistiksel ve yöntembilimsel hatalar-III: Güvenirlik kestirimlerine yönelik hatalar. *Mehmet Akif Ersoy Üniversitesi Eğitim Fakültesi Dergisi, 8* (15) 53–69.

Sayın, S. (2010). Bilimsel araştırmalarda yapılan istatistiksel ve yöntembilimsel hatalar-II: Grafik, tablo ve gösterim hataları. *Türk Eğitim Bilimleri Dergisi, 8* (1), 117–143.

Şaylan, G. (1999). *Postmodernizm*. Ankara: İmge Kitabevi.

Şimşek, H. (1997). *21. yüzyılın eşiğinde paradigmalar savaşı kaostaki Türkiye*. İstanbul: Sistem Yayıncılık.

Şimşek, Y., & Altınkurt, Y. (2007). Eğitim örgütlerinde iletişim konusunda yapılmış lisansüstü tezlerin değerlendirilmesi. In *III. Lisansüstü Eğitim Sempozyumu Bildiriler Kitabı* (pp. 476–484). Eskişehir: Anadolu Üniversitesi Eğitim Bilimleri Enstitüsü.

Sönmez, V. (1999). Bilimsel araştırmalarda yapılan yanlışlıklar. *Hemşirelik Araştırma Dergisi, 1*, 13–28.

Sönmez, V. (2005). Bilimsel araştırmalarda yapılan yanlışlıklar. *Eğitim Araştırmaları Dergisi, 18*, 150–170.

Sözbilir, M., & Canpolat, N. (2006). Fen eğitiminde son otuz yıldaki uluslararası değişmeler: Dünyada çalışmalar nereye gidiyor? Türkiye bu çalışmaların neresinde? IN M. Bahar (Ed.), *Fen ve teknoloji öğretimi* (pp. 417–432). Ankara: Pegem A Yayıncılık.

Sözbilir, M., Güler, G., & Çiltaş, A. (2012). Türkiye'de matematik eğitimi araştırmaları: Bir içerik analizi çalışması. *Kuram ve Uygulamada Eğitim Bilimleri, 12*, 565–580.

Strasak, A. M., Zaman, Q., Pfeiffer, K. P., Göbel, G., & Ulmer, H. (2007). Statistical errors in medical research –a review of common pitfalls. *Swiss Medical Weekly, 137*, 44–49. Retrived May 11, 2012, from http://www.smw.ch/docs/pdf200x/2007/03/smw-11587.pdf.

Taner-Derman, M., & Başal, H. A. (2010). Cumhuriyetin ilanından günümüze Türkiye'de okul öncesi eğitim ve ilköğretimde niceliksel ve niteliksel gelişmeler. *Uluslararası Sosyal Araştırmalar Dergisi, 3* (11), 560–569.

Tavşancıl, E., Çokluk, Ö., Çıtak, G. G., Kezer, F., Yıldırım, Ö. Y., Bilican, S. et al. (2010). *Eğitim bilimleri enstitülerinde tamamlanmış lisansüstü tezlerin incelenmesi (2000–2008).* Ankara Üniversitesi Bilimsel Araştırma Projesi Kesin Raporu. Retrived May 11, 2012, from acikarsiv.ankara.edu.tr/browse/6199/Binder1.pdf.

TÜBİTAK (2006). *I. Ulusal Sosyal Bilimlerde Süreli Yayıncılık Kurultayı*. Retrived May 11, 2012, from http://uvt.ulakbim.gov.tr/sbvt/kurultay1/.

TÜBİTAK. (2007). *II. Ulusal Sosyal Bilimlerde Süreli Yayıncılık Kurultayı*. Retrived May 11, 2012, from http://uvt.ulakbim.gov.tr/sbvt/kurultay2/bildiri.uhtml.

TÜBİTAK. (2008). *III. Ulusal Sosyal Bilimlerde Süreli Yayıncılık Kurultayı*. Retrived May 11, 2012, from http://uvt.ulakbim.gov.tr/toplanti/uay08/sosyal_sunum.uhtml.

TÜBİTAK. (2009a). *Ar-Ge değerlendirme ve etki analizinde kullanılan tanım ve temel kavramlar*. TÜBİTAK Bilim, Teknoloji ve Yenilik Politikaları Daire Başkanlığı. Ankara. Retrived May 11, 2012, from http://www.tubitak.gov.tr/tubitak_content_files/BTYPD/arsiv/ArGe_degerlendirme_etki_analizi_tanim_kavram.pdf.

TÜBİTAK. (2009b). *IV. Ulusal Sosyal Bilimlerde Süreli Yayıncılık Kurultayı*. Retrived May 11, 2012, from http://uvt.ulakbim.gov.tr/sbvt/kurultay4/sunum.uhtml.

TÜBİTAK. (2010). *V. Ulusal Sosyal Bilimlerde Süreli Yayıncılık Kurultayı*. Retrived May 11, 2012, from http://uvt.ulakbim.gov.tr/toplanti/uay10/sos_prog.uhtml.

Ural, A., & Kılıç, İ. (2005). *Bilimsel araştırma süreci ve SPSS ile veri analizi.* Ankara: Detay Yayıncılık.

Ural, O., & Ramazan, O. (2007). Türkiye'de okul öncesi eğitimin dünü ve bugünü. In S. Özdemir, H. Bacanlı & M. Sözer (Eds.), *Türkiye'de okul öncesi eğitim ve ilköğretim sistemi: temel sorunlar ve çözüm önerileri* (pp. 11–61). Ankara: Türk Eğitim Derneği Yayınları.

Yıldırım, K. (2010). Nitel araştırmalarda niteliği artırma. *İlköğretim Online, 9* (1), 79-92. Retrived February 5, 2012, from ilkogretim-online.org.tr/vol9say1/v9s1m8.doc.

Yıldız, A. (2004). Türkiye'deki yetişkin eğitimi araştırmalarına toplu bakış. *Ankara Üniversitesi Eğitim Bilimleri Fakültesi Dergisi, 37* (1), 78–97.

Yılmaz, K., Dedeoğlu-Orhun, B., Kılıç-Şahin, H. & Bahar, H. Ö. (2010). Türkiye'de eğitim denetimi alanında bilimsel bilgi üretimi: Eğitim dergileri ve bilimsel toplantılar örneği. In *II. Uluslararası Katılımlı Eğitim Denetimi Kongresi* (pp. 300–310). Kütahya: DPÜ Eğitim Fakültesi & TEMSEN.

Yılmaz, N. (2011). Matematik eğitim alanında yapılmış araştırmaların incelenmesi: Bir içerik analizi. In *2nd International Conference on New Trends in Education and Their Implications* (pp. 735–757). Antalya.

Yılmaz, Y., & Yılmaz, Y. (2005). Parametrik olmayan testlerin pazarlama alanındaki araştırmalarda kullanımı. *Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Dergisi, 7* (3), 177–199.

Yücel-Toy, B., & Güner-Tosunlar, N. (2007). Sosyal bilimler alanındaki araştırmalarda bilimsel araştırma süreci, istatistiksel teknikler ve yapılan hatalar. *Ticaret ve Turizm Eğitim Fakültesi Dergisi*, *1*, 1–20.