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The Evaluation of Instructional Leadership Researches between 2002 and 2017 in Turkey *

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Abstract: This research study aims to evaluate the graduate theses and articles conducted on the concept of instructional leadership over the period between 2002 and 2017 in Turkey by means of methodological and statistical analysis techniques. In the study, which is configured by using the case study design as one of the qualitative research methods, the related theses are obtained from the database of the Council of Higher Education Thesis Center in Turkey, whereas the related articles are provided through article archives of the National Academic Network and Google Scholar website. The data collected via the academic publication evaluation form are evaluated by frequency analysis using. In the study, 104 postgraduate theses and 35 articles on instructional leadership are conducted, many of which using scales as data collection tools. Lack of due diligence in validity and reliability studies, selection of mostly teachers for sampling, and usage of descriptive t-test and one-way ANOVA techniques in data analyses are detected. As a result, it is shown that similar studies using similar datasets and the same data collection tools have been carried out on instructional leadership. Mixed research and scale development studies in which qualitative and quantitative methods can be used collocation.

Keywords: *Instructional leadership, educational leadership, graduate thesis and article.*

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Introduction

Throughout recent years, research studies conducted on instructional leadership which is seen as a research topic in the field of education have been increased in number. Effective school studies conducted in the 1980s have been instrumental in the instructional leadership approach (Hallinger, 2003, p. 330). Instructional leadership requires direct involvement with students, teachers, curricula, and teaching-learning processes unlike other areas of leadership (Findley and Findley, 1992, p. 103).

Following the studies conducted on instructional leadership in the 1980s in the United States, there have been studies also carried out on instructional leadership in Turkey. The first studies were merely confined to reporting the level of instructional leadership behaviors of school principals. Nevertheless, instructional leadership possesses a crucial impact on teacher and student performance. School administrators, as instructional leaders, create a culture for providing academic development by setting high standards for students and teachers. Instructional leaders contribute to school productivity and effectiveness upon linking the school climate/culture with the school's mission (Hallinger, 2003, p. 333).

Instructional leadership is the understanding that belongs to school administrators who prioritize, monitor, and supervise instructions in schools. It is observed that instructional leadership naturally devolves on school principals who are responsible for the guidance in schools. The presence of school administrators who monitor instructions is revealed by the studies conducted in effective schools. It is revealed that the school principals have assumed the leadership of the school along with their management skills exhibited by analyzing unique conditions of the school climate well. Administrators who exhibit instructional leadership behavior contribute to the best way for education to function in institutions by inspiring and motivating the accompanying teachers. The presence of teachers to provide education and students in need of learning is possible in schools. Instructional leaders are needed to guide these two groups in the most convenient way to make learning possible. Schools at which school administrators who exhibit

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instructional leadership behaviors are subject to diversification; hence they are preferred. The schools in which these behaviors are displayed are referred to as effective schools, and their administrators as instructional leaders (Gokyer, 2010, pp. 113-129).

Instructional leadership, besides being increasingly disputable in the literature over the last few years due to the pressures created by the idea of providing excellence and efficiency, have become the key topic of many professional conferences and seminars. Especially the interest in school administration tends to increase or decrease depending on the external factors such as the monitoring of the schools as well as the education they provide, the application of legal changes and the students' performance of success (Sayginar, 2007, p. 51).

There is an increase on instructional leadership in Turkey in recent years. In order to increase the effectiveness of schools, instructional leadership is important, and instructional leadership should be put into practice effectively.

Every academic study conducted should be guiding the literature of related field and application domains by providing important information. Therefore, examination of the performed research studies one in this way, determination of the missing or necessary aspects to be developed and conducting researches in this direction would contribute to the science. Otherwise, the researches may remain as repetitions of each other that may not make any informative contribution, and may not go beyond what has already been done. It is possible to investigate the researches, the level of research and research that is done, what extent research has contributed to science and practice.

In this study, by examining academic articles and graduate theses carried out on instructional leadership in Turkey, the current situation of the research studies focusing on instructional leadership is brought forth. Thus, it is thought that the studies to be done as a result of defining the deficiencies and the aspects that need to be improved will contribute to the effectiveness of the schools.

Literature Review

The Concept of Instructional Leadership

Instructional leadership has emerged through research into the effectiveness of schools in the late 1970s. Instructional leadership is a combination of "behaviors that the school principals need to fulfill in order to achieve the expected outcomes in school, as well as to fulfill them by influencing people beside themselves" (Sisman, 2012, p. 57).

The instructional leadership drastically moves up the schools towards their objectives with effective learning. The school administrators are effective in their schools as motivating factors must have a strong vision about the presence of their institutions. Instructional leadership is also the enabler of career development, employee empowerment, teachers' participation in decision-making, implementing a fair appraisal and shaping their performance in this direction. It is the construction of common perceptions of the mission, vision, and values of the school. It involves providing the school and its environment with equipment and tools in terms of giving equal opportunities to teachers and other employees. Instructional leadership is the antecedent of the task sequence, which is based on school visibility, communication provisioning, instructional resourcing and resource provisioning. Constituting a model for the school stakeholders, building effective communication with all parties in school and providing necessary social support in order to achieve the school's mission via effective teaching methods and techniques are among the top requirements of the instructional leadership (Ozdemir, 2013, pp. 149-150).

DeBevoise (1984) asserted that the instructional leadership is the behavior that either the school principal personally exhibits or makes sure that others exhibit in order to increase the success of the students. Most often, the concept of instructional leadership is not fully described. Therefore, the term "learning-centered leadership" is used by some specialists in the United States. Learning-centered leadership is involved with affecting the qualities of teaching and student acquisitions (Sisman, 2012, p. 58). Instructional leadership is an authority that school administrators, teachers, and school staff have in order to affect individuals. It comprises behaviors that both school administrators and non-administrative staff are obligated to exhibit. In order for learning as a fundamental task based on a complex process to occur healthily, school administrators need to be instructional leaders in managing this process (Sisman, 2012, pp. 53-56).

Characteristics of Instructional Leader

Danley and Burch described the properties and skills of the instructional leadership in terms of personal, managerial, and professional aspects. The school administrator, as an instructional leader instead of being an ordinary manager, tries to figure out the problems in the direction of the school's objectives and determine what needs to be done. The school administrator, whose essential mission is instructional leadership, should be aware of his / her responsibilities toward the main education and teaching issues, should determine and interpret the goals of the school, should visit the teachers in classroom environment in order to guide for taking necessary measures to prevent them from being interrupted and should check for their deficiencies. The way school administrators run their schools and their main roles as instructional leaders have been emphasized by many authors (Balci, 1992, p. 162).

Jenkins (1991, pp. 87-95) stated that the concept of instructional leadership identifies a leader who performs education and teaching duties based on his / her expertise as an effective communicator that organizes a culture of the organization which effectively conducts management processes. The instructional leader must have a consistent philosophy of education, act on vision goals, intervene as needed, and create a regular and disciplined teaching environment. Instructional leadership requires self-sacrifice, openness to change, constant improvement and development. The core of instructional leadership is comprised of seven functions: coordination, problem-solving, teaching management and development, evaluation, instructional management and support, resource management and quality control (Recepoglu and Ozdemir, 2013, p. 636). According to Smith and Andrews (1989, pp. 14-15), the characteristics of the instructional leader are as follows;

- Acquires the ability to assess and reinforce proper and effective educational strategies: Thoroughly familiar with the latest research findings of learning and teaching methods, shares and implements them along with the school staff. Has information about effective teaching strategies for students of different age groups. Utilizes all knowledge and skills upon implementing effective training strategies.
- Guides and supervises the school staff by considering effective training strategies to improve training: Documents the performance of teachers. Conducts evaluation meetings on the developmental goals proposed by the school staff or administrators. Informs the staff of the results of observations and inspections.
- Assesses the performance of the training programs which are directly related to the students' success in education: Interprets the success of the students in accordance with the standards of the region and scientific criteria. Identifies the strengths of the students and develop intervention processes to address their weaknesses. When necessary, uses external evaluation and consulting tools.
- Successfully implements the personnel assessment (measurement) policies of the region: Develops proper assessment criteria on an annual basis in order to measure the extent to which the staff meets its targets. Holds meetings efficiently about staff assessment. In the implementation of the training program, the students know how important their learning goals are and how they have been achieved: They communicate with the staff and the community on how well the school's missions are achieved. Supports and assists teachers in mastering their students for achieving their learning goals.

Importance of the Instructional Leadership

In the developing world, individuals are expected to become more equipped and open to improvement. Collaborative and outward-looking individuals who can easily adapt to any circumstance, who tend to learn new advancements in order to make a difference are preferred in every profession group (Kaya, 2017, p. 41). Contemporary schools become obligated to adopt new administration approaches different from the previous ones because they are no longer in a stable environment compared to the past. These approaches have conferred certain leadership responsibilities to school principals besides their administrative duties. The function, vision, mission, and structure of the schools are altered by the increasing differences due to population and student mobility along with accountability and economic developments. When it comes to accomplishing this, the instructional leadership has an important place. Administrations maintain system integrity by utilizing human resources effectively in order to achieve the objective of the schools through planning and instructional leadership (Gokyer, 2010, pp. 3-4).

Various behaviors are expected of school administrators as the instructional leaders. These behaviors may include establishing teaching and learning environment on a regular basis, promoting the professional and personal progress of teachers who assume the main burden of instructional activities, effective planning of the training program and process, and guiding the implementation of training programs. As the institutional leaders, they should evaluate the students' success with the teaching process and perform informational activities toward the parents and upper units, and especially the teachers about student achievements. Consequently, the instructional leadership involves pioneering in promoting the qualifications of the teaching staff in order to ensure effective learning of students (Ada, Akan, and Sezer, 2014, pp. 2- 3).

Similar to any institution, the school also has obligations to fulfill towards the society and the external environment. To comprehend the effectiveness of a school, the extent to which it fulfills those obligations may be taken into consideration. If the school can contribute to the virtues of the community, can increase the students' success, can raise collective, productive, provident and environment-friendly individuals so that it can fulfill its obligations and objectives at a high level (Sisman and Turan, 2005, p.33).

Dimensions of Instructional Leadership

In the 21st century, the use of information rather than accessing it is brought forth. Schools should acquire an understanding of sensitivity towards the issues of society and humanity for which they create solutions. Approaches such as multiculturalism, economic knowledge, sensitivity to the environment, and human-oriented conservation in the visual/press media are among the fundamental social parameters (Shaw, 2008, p. 28). The education system is also predicted to attain some changes in the 21st Century. Renewal of the educational programs is the first order of change. Because the existing administrator training programs are perceived as inadequate. Fully equipped schools and the new

generation in pursuit of discoveries on teaching and learning tend to stimulate the idea of learning improvement. At the center of such an understanding, the curriculum must be accompanied by the education and training processes (Behar-Horenstein, 1995, pp. 18-20).

Instructional leadership model, frequently used in schools, was developed by Hallinger and Murphy (1985) having three dimensions (Gedikoglu, 2015, p.66): (1) identification of the school's mission (2) administration of the teaching program, and (3) formation of a positive school climate.

1. Identification of the school mission includes identification of the attainable and measurable aims and objectives of the school to be announced to school stakeholders. The school mission is not necessarily defined by the school leader; however, it is essential for the school leader to make sure that the school's mission is also supported by teachers and students regarding the success of the school.
2. The administration aspect of the curriculum concentrates on the curriculum and teaching process. This dimension requires three leadership functions: (1) counseling in the teaching process and assessment of learning outcomes, (2) coordination within the teaching process and between curricula, and (3) monitoring of student development.
3. Formation of an affirmative school environment includes the functions of an instructional leader such as preserving the learning time in school, ensuring the professional and intellectual development of teachers, being visible at school, and providing some initiative for teachers. Instructional leadership aims to create a school climate in which school management, teachers, students, parents and other stakeholders may cooperate with solidarity so that effective learning can take place. This dimension has a wider scope and content than the previous two dimensions, and it is based on the idea of having high standards and expectations of effective schools and the creation of continuous development culture.

The dimensions of instructional leadership behaviors were examined under five headings in the research study conducted by Sisman (1997) in order to determine the extent to which the school principals fulfill the teaching leadership behaviors and to determine the level of fulfillment of the behavior of the school principals according to individual and organizational variables such as the perceptions of the teachers in primary schools in Eskisehir province. Those dimensions are as follows: 1. Identification and sharing of the school's objectives, 2. Administration of educational program and teaching process, 3. Assessment of teaching process and students, 4. Support given to teachers and their improvement, 5. Formation of regular teaching-learning environment and climate. This classification is commonly used in research studies conducted on this subject in Turkey.

Methodology

Research Goal

The aim of this research study is to examine graduate theses and articles conducted on instructional leadership in Turkey over the period 2002-2017.

In response to this main objective, answers to the following sub-objectives will be sought in the research:

1. How would be the distribution of the graduate theses conducted on the concept of instructional leadership in Turkey over the period 2002-2017 in terms of the departments of study?
2. How would be the distribution of the graduate theses (PhD-MA) conducted on the concept of instructional leadership in Turkey over the period 2002-2017 ?
3. How would be the distribution of the graduate theses conducted on the concept of instructional leadership in Turkey over the period 2002-2017 in accordance with the selection of population and samples?
4. How would be the distribution of the research studies conducted on the concept of instructional leadership in Turkey over the period 2002-2017 in accordance with the used sampling techniques?
5. How would be the distribution of the research studies conducted on the concept of instructional leadership in Turkey over the period 2002-2017 in accordance with the used data collection tools?
6. How would be the distribution of the research studies conducted on the concept of instructional leadership in Turkey over the period 2002-2017 in terms of reliability?
7. How would be the distribution of the research studies conducted on the concept of instructional leadership in Turkey over the period 2002-2017 in terms of validity?
8. How would be the distribution of the research studies conducted on the concept of instructional leadership in Turkey over the period 2002-2017 in terms of used scale types?
9. How would be the distribution of the research studies conducted on the concept of instructional leadership in Turkey over the period 2002-2017 in terms of the used statistical analysis?

Population -Sample and Data Collection

The population of the research study is constituted by university graduate theses and articles conducted on instructional leadership concept in Turkey over the period 2002-2017 which are obtained from Turkey National Academic Network and Google's academic website. It is the limitation of this MA thesis study so in this article, which is produced of MA thesis study, 2002-2017 periods is limitation. Since the research is requested to be both contemporary

and comprehensive, the population of study has been defined as the studies conducted on the instructional leadership over the period 2002-2017, considering the difficulty of accessing the digital archive (Turkey National Academic Network) before 2002. Within this context, the whole population has been reached without applying any sampling method.

The data are collected by means of document analysis in the study. The theses and articles collected were the documents of the study and the documents were analyzed in order to serve the purpose of the research. An academic publication evaluation form prepared according to the research questions was used in the analysis of the documents. The academic publication evaluation form has been developed in order to determine the descriptive, methodological and statistical status of the thesis and articles in the scope of the research. Academic publication form has been developed by the researchers. There are nine items in this form. For each study in the study, a row of 9 columns was allocated and the studies were coded according to the items. The coding list is used to fill the form. The coding list was created by the researchers after the objectives of the research were determined and the related literature was searched for the items in the form. After receiving the opinion of the expert faculty members, the coding list was finalized. For example; the study article is coded as one and the thesis as two. Theses: doctoral thesis one, master's thesis was two as the coding process. Coding has been performed for each item in the form.

To ensure the internal validity of the study:

1. The data obtained from the theses and articles about the instructional leadership were included in the findings section of the research and comments were made.
2. Internal homogeneity and external heterogeneity criteria of the categories formed to ensure consistency among the findings were taken into consideration.

To ensure the external validity of the study:

1. In the method section of the study, details of the coding and analysis are given in detail.
2. The complete identities of the theses and articles reviewed are presented in the appendix of the research, and the pdf formats are recorded and stored in the computer environment for future confirmation.

To ensure the internal reliability of the study:

1. The findings obtained after the data analysis were given directly without comment.
2. In the data analysis process, the coding was done by the researchers other than the researchers.

To ensure the external reliability of the study:

1. Information and methods related to data collection and analysis are given in detail.
2. The data collection tool used in the research, the records related to the dissertations and articles transferred to the computer environment, will be stored in order to be able to present the analyzes done in the analysis stage when needed.

The theses to be included in the study are searched by the Higher Education Institution thesis database with the keywords of "instructional leadership" and "educational leadership." In this direction, full-text theses are downloaded to the computer, and the abstracts of theses with restricted access are recorded. The numbers of the theses investigated with two different keywords are cross-matched to avoid possible repetitions. It is possible to get answers to the first questions of the research from the abstract parts of permitted and restricted theses. Since it is necessary to examine the contents of the theses (data collection techniques, statistical methods, population sampling, etc.), only permitted theses are taken into account in the subsequent coding. The articles to be included in the study are retrieved from the ULAKBIM article archive and Google academic websites with the keywords of "instructional leadership" and "educational leadership," and full-text articles are saved on the computer. The necessary comparisons have been made so that the studies in different databases are not the same.

The Characteristics of Sample

The distribution of graduate theses and articles conducted on instructional leadership in Turkey over the years 2002-2017 are illustrated in Figure 1.

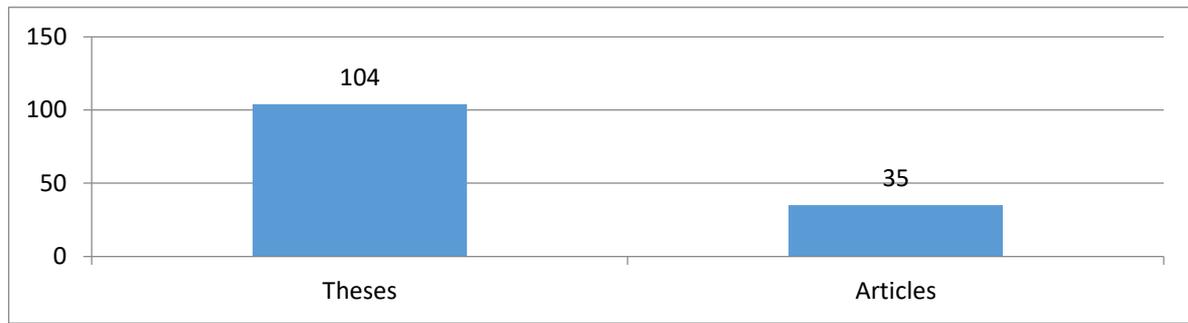


Figure 1. Distribution of Graduate Theses and Articles Conducted on the Instructional Leadership over the period 2002-2017

As illustrated in Figure 1, totally 104 graduate theses and 35 articles conducted on the concept of instructional leadership in Turkey over the years 2002 - 2017.

Table 1. Distribution of Graduate Theses and Articles Conducted in Turkey on the Instructional Leadership According to Years

Year	Thesis		Article		Total	
	n	%	N	%	n	%
2002	4	3.8%	1	2.9%	5	3.6%
2003	5	4.8%	0	0.0%	5	3.6%
2004	3	2.9%	0	0.0%	3	2.2%
2005	4	3.8%	0	0.0%	4	2.9%
2006	4	3.8%	3	8.6%	7	5.1%
2007	9	8.7%	2	5.7%	11	7.9%
2008	5	4.8%	1	2.9%	6	4.3%
2009	5	4.8%	0	0.0%	5	3.6%
2010	10	9.6%	2	5.7%	12	8.6%
2011	7	6.7%	2	5.7%	9	6.5%
2012	2	1.9%	5	14.3%	7	5.1%
2013	7	6.7%	5	14.3%	12	8.6%
2014	9	8.7%	8	21.9%	17	12.3%
2015	13	12.5%	2	5.7%	15	10.8%
2016	7	6.7%	1	2.9%	8	5.8%
2017	10	9.6%	3	8.6%	13	9.4%
Total	104	100%	35	100%	139	100%

Upon examining the data in Table 1, the distribution of graduate theses conducted on instructional leadership is found to be as follows: 4 theses (3.8%) in 2002, 5(4.8%) in 2003, 3 (2.9%) in 2004, 4(3.8%) in 2005, 4(3.8%) in 2006, 9(8.7%) in 2007, 5(4.8%) in 2008, 5(4.8%) in 2009, 10(9.6%) in 2010, 7(6.7%) in 2011, 2(1.9%) in 2012, 7(6.7%) in 2013, 9(8.7%) in 2014, 13(12.5%) in 2015, 7(6.7%) in 2016, and 10(9.6%) in 2017. Upon considering the articles conducted on instructional leadership, their distribution in terms of years of publication are as follows: 1 article (2.9%) in 2008, 2 (5.7%) in 2007, 1 (2.9%) in 2008, 2 (5.7%) in 2011, 5 (14.3%) in 2012, 5 (14.3%) in 2013 and 8 (21.9%) in 2014, 2 (5.7%) are in 2015, 1 (2.9%) in 2016 and 3 (8.6%) are in 2017.

Table 2. Distribution of Graduate Theses Conducted in Turkey on the Instructional Leadership According to the Related Institutes

Institutes	Frequency (n)	Percentage (%)
Institute of Social Sciences	72	69.2
Institute of Educational Sciences	32	30.8
Total	104	100.0

Upon considering the distribution of graduate theses conducted on instructional leadership in terms of related institutes; it is seen that the total number of theses conducted at social sciences and educational sciences institutes are 72 (69.2%) and 32 (30.8%), respectively.

Analysis of Data

A content analysis technique was used to evaluate the examined research findings. Content analysis is "a systematic, reproducible technique in which some words of a text are summarized by smaller content categories with codes based

on certain rules" (Buyukozturk, Cakmak, Akgun, Karadeniz and Demirel, 2012). Within this framework, content analysis attempts to identify data and to discover facts that may be hidden within the data.

In this research study, the graduate theses and articles processed by document analysis are coded and categorized according to research questions, and then the findings are presented in reports. The obtained data are tabled and presented in the findings section of the research study. The analyses are performed via SPSS 22.0 software to which the data are uploaded. In the study, frequency analysis is utilized to evaluate the data. "Frequency analysis, in its simplest form, reveals the frequency with which units or items appear numerically, in percentage and proportional form." This allows the intensity and importance of a particular item to be understood. "In frequency analysis, items are placed in the order of importance, and a classification based on frequency is made" (Bilgin, 2000, p.15). "Frequency and percentages are often used in interpreting data obtained as a result of content analysis" (Buyukozturk et al., 2012, p. 243).

Findings / Results

Table 3. Distribution of Graduate Theses Conducted in Turkey on the Instructional Leadership According to their Scientific Fields of Study

Scientific Fields of Study	Frequency(n)	Percentage(%)
Educational Sciences	60	59.4
Educational Administration and Supervising	17	16.8
Administrative Sciences	1	1.0
Business Administration	13	12.9
Elementary Education	5	5.0
Public Relations and Advertising	1	1.0
Basic Education	3	3.0
Physical Education and Sports	1	1.0
Total	101	100.0

The scientific fields of three graduate theses studied are not specified. Upon considering the scientific fields of study for which graduate theses are conducted on instructional leadership in Table 3, the distribution of graduate theses are given as follows: 60 (59.4%) articles performed in Educational Sciences, 17 (16.8%) in Educational Administration and Supervising, 1 (1.0%) in Administrative Sciences, 13 (12.9%) in Business Administration, 5 (5.0%) in Elementary Education, 1 (1.0%) in Public Relations and Advertising, 3 (3.0%) in Basic Education, and 1 (1.0%) in Physical Education and Sports.

Table 4. Distribution of Graduate Theses Conducted in Turkey on the Instructional Leadership According to their Types

Thesis Type	Frequency(n)	Percentage (%)
Doctoral	6	5.8
Masters	98	94.2
Total	104	100.0

Upon considering the types of graduate theses conducted on instructional leadership in Table 4, it is seen that the total number of graduate theses are comprised of 6 (5.8%) doctoral (Ph.D.) and 98 (94.2%) master's theses.

Table 5. Distribution of Graduate Theses and Articles Conducted in Turkey on the Instructional Leadership According to the Selection of Population and Sample

The Population and Sample	Thesis		Article		Total	
	N	%	N	%	N	%
Teacher	43	51.2%	25	73.5%	68	57.6%
Teacher and School Administrator	27	32.1%	5	14.7%	32	27.1%
Principal and Vice-Principal	4	4.8%	0	0.0%	4	3.4%
School Administrator	6	7.1%	3	8.8%	9	7.6%
Inspector, Principal and Teacher	2	2.4%	0	0.0%	2	1.7%
Student	2	2.4%	0	0.0%	2	1.7%
College Graduate	0	0.0%	1	2.9%	1	0.8%
Total	84	100.0%	34	100.0%	118	100.0%

Upon examining the sampled groups, it is seen that only teachers are subjected to sampling in some studies, while both teachers and school administrators are sampled together in other studies. In some other research studies, however, both school principals and vice-principals are sampled, or school principals are sampled alone. A small proportion of

the examinations are handled along with inspectors, principals, and teachers. Upon considering the data in Table 5, it is found that 43 (51.2%) of the population and samples of the graduate theses are comprised of teachers, 27 (32.1%) of teachers and school administrators, 4 (4.8%) of school principal and vice-principals and 6 (7.1%) of school administrators, 2 (2.4%) of inspectors, principals and teachers, and 2 (2.4%) of students. It is found that 25 (73.5%) of the population and samples of the articles conducted on instructional leadership are teachers, 5 (14.7%) are teachers and school administrators, 3 (8.8%) are school administrators, and 1(2.9%) is university graduate.

Table 6. Distribution of Graduate Theses and Articles Conducted in Turkey on the Instructional Leadership According to the Population and Sampling Methods Used

Sampling Technique	Thesis		Article		Total	
	N	%	N	%	N	%
Unspecified	4	4.8%	6	17.1%	10	8.4%
Random	42	50.0%	9	25.7%	51	42.9%
Stratified	8	9.5%	3	8.6%	11	9.2%
Whole Population	19	22.6%	8	22.9%	27	22.7%
Cluster	2	2.4%	0	0.0%	2	1.7%
Convenience	1	1.2%	1	2.9%	2	1.7%
Maximum Variation	0	0.0%	1	2.9%	1	0.8%
Purposive	2	2.4%	5	14.3%	7	5.9%
Proportionate	5	6.0%	2	5.7%	7	5.9%
Snowball	1	1.2%	0	0.0%	1	0.8%
Total	84	100.0%	35	100.0%	119	100.0%

Upon examining the data in Table 6, it is found that 4 (4.8%) of the graduate theses used an unspecified sampling technique, 42 (50.0%) used random sampling, 8 (9.5%) used stratified sampling, 19 (22.6%) used the whole population, 2 (2.4%) used cluster sampling, 1 (1.2%) used convenience sampling, 2 (2.4%) used purposive sampling, 5 (6.0%) used proportionate sampling and 1(1.2%) used snowball sampling techniques. It is seen that 6 (17.1%) of the articles conducted on instructional leadership used an unspecified sampling technique, 9 (25.7%) used random sampling, 3 (8.6%) used stratified sampling, 8 (22.9%) used the whole population, 1 (2.9%) used convenience sampling, 1 (2.9%) used maximum variation, 5 (14.3%) used purposive sampling and 2 (5.7%) used proportionate sampling techniques.

Table 7. Distribution of Graduate Theses and Articles Conducted in Turkey on the Instructional Leadership According to the Data Collection Tools Used

Data Collection Tools	Thesis		Article		Total	
	N	%	N	%	n	%
Unspecified	1	1.2	1	2.9	2	1.7
Scale	78	92.9	26	74.3	103	87.3
Interview	4	4.8	5	14.3	9	7.6
Literature	1	1.2	3	8.6	4	3.4
Total	84	100.0	35	100.0	119	100.0

Upon examining the distribution of graduate theses conducted on instructional leadership in terms of data collection tools given in Table 7, it is seen that 78 theses (92.9%) used scales, 4 (4.8%) used interviews, 1 (1.2%) used literature, and 1 (1.2%) used some unspecified data collection tools. Upon considering the distribution of articles conducted on instructional leadership in terms of data collection tools given in Table 8, it is seen that 26 articles (74.3%) used scales, 5 (14.3%) used interviews, 3 (8.6%) used literature, 1(2.9%) used some unspecified tools.

Table 8. Distribution of Graduate Theses and Articles Conducted in Turkey on the Instructional Leadership According to the Status of Reliability

Reliability	Thesis		Article		Total	
	N	%	N	%	n	%
Unspecified	28	33.3	20	57.1	48	40.3
Cronbach Alpha	56	66.7	15	42.9	71	59.7
Total	84	100.0	35	100.0	119	100.0

Upon examining the data given in Table 8, it is seen that the status of the reliability analysis performed in 28 (33.3%) of the graduate theses is not specified, and reliability analysis is performed with Cronbach's Alpha method in 56 (66.7%) of the graduate theses. The status of the reliability analysis performed in 20 (57.1%) of the articles is not specified, reliability analysis is performed with Cronbach's Alpha method in 15 (42.9%) of the articles.

Table 9. Distribution of Graduate Theses and Articles Conducted in Turkey on the Instructional Leadership According to the Status of Validity Analysis

Validity Analysis	Thesis		Article		Total	
	N	%	N	%	N	%
Unspecified	56	66.7	19	54.3	75	63.0
Factor Analysis	24	28.6	14	40.0	38	31.9
Content (Scope)	0	0.0	1	2.9	1	0.8
Expert Opinion	4	4.8	1	2.9	5	4.2
Total	84	100.0	35	100.0	119	100.0

Upon considering the status of validity analyses performed in the graduate theses and articles conducted on instructional leadership, the distribution of the numbers of theses in which unspecified analyses, factor analyses, and expert opinions are applied would be listed as 56 (66.7%), 24 (28.6%), and 4 (4.8%), respectively. On the other hand, the distribution of the numbers of articles in which unspecified analyses, factor analyses, content (scope) analyses and expert opinions are applied would be listed as 19 (54.3%), 14 (40.0%), 1 (2.9%), and 1 (2.9%), respectively.

Table 10. Distribution of Studies Conducted on the Instructional Leadership in Turkey over the period 2002–2017 According to the Scales Used

Scale Used	Thesis		Article		Total	
	N	%	N	%	N	%
Scales Developed by the Researchers	15	19.2	4	15.3	18	18.3
Acar (2001)	1	1.3	0	0.0	1	1.0
Akdogan (2002)	2	2.6	0	0.0	2	1.9
Akgun (2001)	1	1.3	0	0.0	1	1.0
Aksoy (2006)	0	0.0	1	3.8	1	1.0
Alig-Meilcarek (2003)	1	1.3	0	0.0	1	1.0
Babbith (1990)	1	1.3	1	3.8	2	1.9
Cosar (2010)	1	1.3	0	0.0	1	1.0
Cakici (2010)	1	1.3	1	3.8	2	1.9
Gul (2001)	9	11.5	2	7.7	11	10.6
Gumuseli (1996)	1	1.3	0	0.0	1	1.0
Gun (2012)	0	0.0	1	3.8	1	1.0
Hallinger (1982)	1	1.3	1	3.8	2	1.9
Inandi ve Ozkan (2006)	2	2.6	0	0.0	1	1.9
Beycioglu ve Aslan, (2010)	1	1.3	0	0.0	1	1.0
Polat (1997)	1	1.3	0	0.0	1	1.0
Sayginar (2006, 2007)	1	1.3	1	3.8	2	1.9
Sisman (1997, 2002, 2004, 2012)	38	48.7	10	38.5	48	46
OECD (2009)	0	0.0	1	3.8	1	1.0
Tanriogen, (1998, 2000, 2010)	1	1.3	3	11.5	4	3.8
Total	78	100.0	26	100.0	104	100.0

Upon examining the distribution of the theses regarding the instructional leadership in accordance with their scales given in Table 10; it is found out that the numbers of studies in which the instructional leadership scales developed by Acar (2001), Akdogan (2002), Aksoy (2006), Babbith (1990), Cosar (2010), Cakici (2010), Gul (2001), Gumuseli (1996), Gun (2012), Inandi and Ozkan (2006), Beycioglu, (2009), Polat (1997), Sayginar (2006; 2007), Sisman (1997; 2002; 2004; 2012), Tanriogen (1998; 2000; 2010) and the researchers themselves are used would be listed as 1 (1.3%), 2 (2.6%), 1 (1.3%), 1 (1.3%), 1 (1.3%), 1 (1.3%), 1 (1.3%), 9 (11.5%), 1 (1.3%), 1 (1.3%), 2 (2.6%), 1 (1.3%), 1 (1.3%), 1 (1.3%), 38 (47.4%), 1(1.3%), and 15 (19.2%), respectively.

Upon examining the distribution of the articles regarding the instructional leadership in accordance with their scales given in the same table; it is found out that the numbers of studies in which the instructional leadership scales developed by Alig-Meilcarek (2003), Gul (2001), Gumuseli (1996), Hallinger (1982), Babbith (1990), Inandi and Ozkan (2006), Sayginar (2006, 2007), Sisman (1997; 2002; 2004; 2012), OECD (2009), Tanriogen (1998; 2000; 2010), and the researches themselves are used would be listed as 1 (%3.8), 1 (3.8%), 2 (7.7%), 1 (3.8%), 1 (3.8%), 1 (3.8%), 1 (3.8%), 10 (38.5%), 1 (3.8%), 3(11.5%), 3 (11.5%), and 1 (3.8%), respectively.

Table 11. Distribution of Statistical Analysis Used in Graduate Theses and Articles Conducted on the Instructional Leadership in Turkey

Statistical Analysis	Thesis		Article		Total	
	N	%	N	%	N	%
Descriptive ([f. %. X. SS])	80	95.20%	28	80.00%	108	22.5%
T Test	64	76.20%	12	34.30%	76	15.8%
ANOVA	64	76.20%	8	22.90%	72	15.0%
Kruskal Wallis	22	26.20%	1	2.90%	23	4.8%
Mannwhitney	15	17.90%	0	0.00%	15	3.1%
Tukey	22	26.20%	2	5.70%	24	5.0%
Scheffe	17	20.20%	3	8.60%	20	4.2%
Chi-Square	5	6.00%	2	5.70%	7	1.5%
Correlation	26	31.00%	10	28.60%	36	7.5%
Factor Analysis	24	28.60%	14	40.00%	38	7.9%
Regression	13	15.50%	7	20.00%	20	4.2%
Kolmogorovsmirnov	10	11.90%	2	5.70%	12	2.5%
Lsd	9	10.70%	1	2.90%	10	2.1%
MANOVA	1	1.20%	0	0.00%	1	0.2%
Levene	11	13.10%	0	0.00%	11	2.3%
Dunnett C	4	4.80%	1	2.90%	5	1.0%
Cohen D	1	1.20%	1	2.90%	2	0.4%
Total	388	80.8%	92	19.2%	480	100.0%

Considering the statistical techniques used in the studies conducted on instructional leadership given in Table 11; it is seen that descriptive statistics (95.20%), T-test (76.20%) and Anova (76.20%) test are mostly used in the graduate theses. As far as the articles are concerned, descriptive statistics (95.20%), T-test (34.30%) and factor analysis (40%) tests are mostly.

Discussion and Conclusion

In terms of department of the thesis examined, it is seen that the percentage distribution of the theses completed in educational sciences, in education management and supervision sciences, and in business administration sciences fields are 59.4%, 16.8%, and 12.9%, respectively. Instructional leadership, as a sub-field of educational management, has entered into the field of business administration as well. Therefore, it is considered ordinary that the majority of the studies on instructional leadership have been carried out under the educational management and supervision field, while a small part has been conducted under the business administration field. As universities expand in size, the establishment of new branches of scientific fields is required upon need arises. A few numbers of research studies are being conducted instructional leadership within such new branches of education as Management Sciences, Business Administration, Primary Education, Public Relations and Advertisement, Classroom Teaching, Physical Education and Sports which are the sub-areas of educational management and business management.

The graduate theses regarding the instructional leadership are comprised of the masters' theses (94.7%) and the doctoral (Ph.D.) (5.8%) theses. The lower percentage of doctoral theses is as a research topic is directly commensurate with the number of doctoral studies performed at universities. There is so limited doctorate dissertations about instructional leadership in Turkey, and it can be considered as the indicator of the need for doctoral thesis studies on the subject.

Upon examining those 84 theses in terms of their population and samples, it is found that 51.2% of the theses and 73.5% of the articles are performed on teachers, while 32.1% of the theses and 14.7% of the articles are performed on teachers and school administrators. Considering the researchers examined for instance, the study of Akalin Akdag (2009) entitled "The Effectiveness Level of the Instructional Leadership Attitudes of the Elementary School Administrators on the Application of the New Elementary School Curriculum" was conducted only by the teachers, while the study of Tatlioglu and Okay (2012) entitled "Instruction Leadership Roles of Private Education School Managers and Teachers (Gaziantep Sample)" was performed on 128 teachers and 8 school principals. Teachers and school administrators, who are the basic practitioners of teaching, constitute the main research population, so both teachers and administrators are expected to be chosen as the population and sample in the examination.

22.7% of the graduate theses and articles conducted on instructional leadership are found to be carried out by taking the whole population into consideration. For instance, in the study of Recepoglu and Ozdemir (2013) entitled "The Relationship between Principals' Instructional Leadership Behaviors and Organizational Health of the School" and graduate thesis of Gocen (2013) entitled "primary school principals' instructional leadership levels in the application process of the constructivist primary education program", it has been attempted to reach the whole of the population without sampling. It is thought to be healthier to reach the whole population for generalizing the obtained results in

cases such as the population is small, or the researcher has the possibility of reaching the entire population, and so on. It is determined by the random sampling technique among eight different sampling techniques is mostly (42.9%) preferred and utilized. Random sampling technique is applied in 50% of the theses and 25.7% of the articles. For instance, the basic random sampling technique was used in the studies of Sagir and Memisoglu (2013) entitled "Levels of Encountering Problems for Primary School Administrators in Their Educational Leadership Roles and the Problems Encountered" and Yoruk and Akalin Akdag (2010) entitled "Scale Development about the Effectiveness of Teaching-Leadership Behaviors of the Primary School Principals". Although it is not a strong sample technique, convenience sampling method is considered as the most important factor in preferring a random sampling technique. In cases where the population is too large, and it is difficult to reach it, sampling is applied. Similarly, the most preferred sampling technique was found to be a simple random sampling technique in studies that do not investigate examinations in different fields in the literature (Isci, 2013; Uysal, 2013).

It is determined that the most scales be preferred as a means of collecting data in the majority of graduate theses (92.9%) and articles (87.3%) which are conducted on instructional leadership. Scales are the most preferred method since they are easy to implement as a data collection tool. Especially throughout recent years, the fact that scales can be filled online is thought to be effective on researchers' preference of scales. In the literature, it is found that the most preferred data collection tool is the scales for the examinations of graduate theses and articles as it is in our research (Akyol and Yavuzkurt, 2016; Balci and Apaydin, 2009; Isci, 2013; Karadag, 2009; Kutukcu, 2013). It is detected that Cronbach's Alpha coefficient is utilized as reliability study in graduate theses conducted on instructional leadership in Turkey over the period 2002-2017. Cronbach's Alpha is detected to be the most preferred method also used in reliability studies that investigate different researches in the literature (Karadag, 2009; Isci, 2013). The interesting result of the study is that 40.3% of the theses and articles examined did not provide any information about the Cronbach's Alpha reliability study. Similar results have also been obtained by studies in the literature. Isci (2013) found that 28% of the theses did not provide information about reliability studies. Stevenson (2000) and Onwuegbuzie (2002) emphasized that this not be only national but also an international problem. Willson (1980), in his study conducted on the articles published in the AERJ over the period 1969-1978, found that 45% of the studies were related to reliability analysis and 37% had no knowledge of reliability. Goodwin (1985) noted that 52% of the articles did not provide information on reliability studies, which lowers the reliability and usefulness of the research. The lack of reliability analysis in the researches in hand calls in question the scientific nature of the research.

The examination determined that the validity study is not mentioned in 66.7% of the theses and 63% of the articles conducted on instructional leadership over the period 2002-2017. Factor analysis is detected as the most preferred (31.9%) one within the validity studies. Similarly, Isci (2013) found that factor analysis was mostly applied in validity studies and that no information was given about validity studies in 44.2% of the theses. Goodwin (1985) highlighted that no information was given about validity in 17% of the articles, which indicates that it reduces the reliability and usefulness of the research. Particularly, the low rate of validity analysis performance used in graduate theses is related to the fact that previously used scales are preferred in the studies. It is considered that validity analysis is not needed since factor analysis is not performed on the scales and the existing factors are used. Upon considering the scales used in graduate theses and articles conducted on instructional leadership, it is found out that the numbers of studies in which the instructional leadership scales developed by Sisman (1997; 2002; 2004; 2012), Gul (2001), and the related researches are used would be listed as 48, 11, and 18 out of 104 studies; respectively. It is thought that these scales are preferred in measurement due to the fact that the validity and reliability are accepted in the literature as well as they are much more convenient in scala application.

In the study, descriptive statistics are used in 95.20% of graduate theses conducted on instructional leadership, while t-test and ANOVA test are used in 76.20%. In the articles, it is determined that descriptive; factor analysis and t-tests are used at the rates of 80%, 40%, and 34.30%, respectively. It is thought that the statistical techniques used in examinations are related to the subject, purpose, and content of the research studies. Upon consideration of instructional leadership as the only variable in the research studies conducted on instructional leadership, it is seen that descriptive statistics are used in determining the participants' opinions that tend to differ in accordance with such variables as gender, age, etc. and that t-test and ANOVA are chosen as the difference tests (Karakecili, 2014; Aydin, 2017). In examinations in which validity and scale development studies are included, it is seen that factor analysis is utilized (Recepoglu and Ozdemir, 2013; Sisman, 2016).

In the literature, findings that overlap with our research results are found. In Isci (2013), t-test and one-way ANOVA tests were predominantly preferred. This indicates that simple statistical techniques are preferred in the studies carried out, and repeated researches are considered as the most important reason for the use of similar statistical techniques. It is thought that the preference of factor analysis in the literature is related to the higher emphasis put on validity and scale development studies. The statistical techniques used in the data analysis are important in terms of obtaining in-depth information on the subject. In the study, it is observed that advanced-level statistical methods are preferred by only a limited number of studies which have been carried out by adapting the techniques used in similar studies. Thus, different researches which resemble each other, find similar results and which provide a limited contribution to the literature are included in the literature.

For the sake of instructional leadership activities' contribution to the field, especially the reliability and validity of the studies were low level. Research on instructional leadership reliability and validity of studies must be done. Research studies in which relevant scale are developed should be focused on instead of research repetitions for which the same data collection tools are used. Moreover, it would be more useful to conduct mixed studies using more than one data collection tool in future research.

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