Journal of Education and Practice
ISSN 2222-1735 (Paper) ISSN 2222-288X (Online)
Vol.7, No.34, 2016

Content Analysis of the Papers in 2015 High-Impact A-Class SSCI Journals

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Abstract
It was aimed in this study to reveal the general tendency of studies in the field of education by examining the papers in the high-impact A-class SSCI journals, to which qualified papers are accepted from all round the world, in terms of their dependent-independent variables, sample or study groups, research designs, data collection instruments, and data analysis techniques. The descriptive survey model was used in the research. The population of the research was all the journals surveyed in the field of educational sciences by SSCI. The journals and papers examined were selected with the purposive sampling method. 169 papers from six journals were subjected to examination within the scope of the research. Descriptive analysis and content analysis methods were used for analyzing the data. It was consequently seen that the papers used dependent variable of "student" the most which was followed by "teacher." The most studied variable along with "student" was "academic performance." It was found that a quite large number of dependent variables were used in the papers examined. It can be understood that studies on students among all study groups occupied the largest place, which was followed by teachers. It was seen that quantitative data analyses and experimental research studies was addressed more in the papers. Several documents and tests were mostly preferred as data collection instruments. It was noticed that the most used data analysis method was the regression analysis. Finally, some recommendations were developed in accordance with the research results.
Keywords: Content analysis high-impact A-Class SSCI journals, dependent-independent variables, sample or study groups, research designs, data collection instruments, data analysis techniques

1. Introduction

Information of quantity and quality on research conducted in any discipline also provides explanatory information on research tendencies in that discipline. Research tendency refers to the change in research studies in time and the direction of this change (Ozan and Kose, 2014; Yıldız, 2004). Research studies conducted in education around the world provide information on the effectiveness of the practices related to education and play an enlightening role in the changes and innovations to be made in future (Cakıcı and Ilgaz, 2011). It is necessary to examine and organize the educational research studies at certain intervals, identify their tendencies in the field and make their evaluations based on their results so that these functions can be realized (Selcuk, Palancı, Kandemir and Dundar, 2014).

Researchers' desire to declare the study results immediately and the fact that their publication performance is an important factor in criteria of academic promotion also increase the attention to scientific publication. In this context, peer-reviewed journals equipped with possessing qualified and up-to-date information are among the most consulted information sources in scientific communication (Sarıer, 2011). Research studies in academic journals play a critical role in ensuring the knowledge in an organized and systematic way (Yalcın, Yavuz and Dibek, 2015).

Content analysis is one of the qualitative analysis methods used for analyzing mainly written and visual data. A deductive path is followed and categories in regard to the research subject are developed in this method (Ozdemir, 2010). The phenomena can be organized more properly and become more understandable thanks to the categories (Yıldırım and Simsek, 2011).

It is seen in the literature that there are some research studies in which thesis and papers in educational sciences examined with content analysis (Aztekin and Sener, 2015; Cubukcu, Yılmaz and İnci 2016; Daghan and Akkoyunlu, 2015; Erdem, Gun, Sengul and Ozkan, 2015; Gul and Sozbilir, 2015; Gultekin and Nakiboglu, 2016; Kızılaslan, Sozbilir and Diyaddin 2012; Kula Wassink and Sadi, 2016; Kurt and Erdogan, 2015; Secer, Ay, Ozan and Yılmaz, 2014; Ultay and Ultay, 2014). Nonetheless, only one research that examines the papers in the journals surveyed by SSCI in the international literature (Yalcın, Yavuz and Dibek, 2015) was found in Turkey. Thus, it is thought that this research will help fill this gap in the field.

It was aimed in this study to reveal the general tendency of studies in the field of education by examining the papers in the high-impact A-class SSCI journals, to which qualified papers are accepted from all round the world, in terms of their dependent-independent variables, sample or study groups, research designs, data collection instruments, and data analysis techniques. Putting forth the general tendencies of international studies in the field of educational sciences should provide data for researchers to compare their own studies and these tendencies and enable them to conduct their studies in parallel with universal tendencies. In addition, it is thought that this study will guide researchers who want to be published in high-impact journals on education.

To this end, answers were sought to the following questions in regard to the papers published in 2015 high-

impact A-Class SSCI journals of educational sciences:

1. What were the dependent-independent variables studied on?
2. How is the distribution of sample or study group?
3. How is the distribution by research methods used?
4. How is the distribution by data collection instruments used?
5. How is the distribution by data analysis methods and techniques used?

2. Method

2.1 Research Model

Descriptive survey model was used in this research. Survey models are the research approaches aiming to describe a past or current event as it is (Karasar, 1999). Descriptive survey can be explained as the method of surveying and analyzing a paper as appropriate as possible in the field of research so that generalizability of the results can be achieved (Avcı, Usluel, Kurtoglu and Uslu, 2013).

2.2 Population and Sample

The population of the research was all the journals surveyed in the field of educational sciences by SSCI. The journals and papers examined were selected with the purposive sampling method (Yıldırım and Simsek, 2011). The selection criteria are being A class for the journal, having high impact factor, being open to publication from every subject in educational sciences, and being in English for papers. The papers selected for the research are limited to the year 2015. 6 journals complying with these criteria were subjected to an examination. Special issues of these journals, reviews, critical reviews, and editorial comments in these journals were excluded from the scope of the research. Therefore, 169 papers from six journals were subjected to an examination within the scope of the research. The journals selected and their impact factors are given in Table 1.

Table 1. Journals Selected for the Research and their Impact Factors

Journal	**Impact Factor**
Review of Educational Research (RER)	3,897
Educational Research Review (ERR)	3,860
Learning and Instruction (LI)	3,692
Journal of Research on Educational Effectiveness (JREE)	3,154
Educational Researcher (ER)	2,527
The Journal of Educational Research (TJER)	1,307

2.3 Collection and Analysis of the Data

A sheet in which dependent-independent variables, research methods, sample, data collection instruments, and data analysis techniques of the papers could be entered by the researchers was formed to use in the analysis of the papers. A paper was selected from each journal to determine the functionality of the sheet to be coded and 6 papers in total was examined and selected by the researchers to include in the sheet. 15 papers selected randomly from different journals were entered by three researchers into the coding sheet separately. The concordance coefficient was looked into among the codes created by the researchers and it was found to be 0.95. Upon the discovery of high concordance coefficient, the papers were shared by the researchers and encoded onto the sheets.

The papers complying with the criteria in the journals included in the sample were accessed in the electronic databases of Duzce University. Descriptive analysis and content analysis methods were used for analyzing the data. Descriptive analysis is a data analysis technique which is utilized for defining the current situation (Buyukozturk, 2015). And content analysis can be defined as the comparison, classification, organization of the text examined and conclusion of theoretical results (Goktas, Kucuk, Aydemir, Telli, Arpacık, Yıldırım and Reisoglu, 2012). The existing data were revealed without intervening with the current situation first in this research. Next, the data obtained were encoded and themes were created from shared codes and interpreted to achieve results. In this case, it is seen that both analysis methods were used within the scope of the research.

In a qualitative research, expert review and participant confirmation methods for ensuring the internal validity, purposive descriptive and purposive sampling methods for ensuring the external validity, consistency review method for internal reliability, and confirmation review method for external validity are used (Yıldırım and Simsek, 2011). The papers encoded by the researchers were examined together and the codes were stated along with their frequencies. The themes were created from the shared points of the codes. In the process of creating and interpreting the themes, importance was attached to the consensus of the researchers. Expert opinions were consulted in each of these stages and necessary adjustments were made in accordance with those opinions.

3. Findings

Findings regarding the content analysis of the papers published in 2015 A-Class SSCI journals with the highest impact factor in the field of educational sciences and their frequency values and percentages are given in tables in

this section.

3.1 Distribution of the Papers by Dependent-Independent Variables

The distribution of the papers were examined by the dependent and independent variables and presented in Table 2-Table 6.

Table 2. Distribution of Dependent Variables

Dependent Variables		f		%
Student	Academic Performance	102	138	89.03
	Attitude towards Learning/school	14		
	Cognitive Process Skills	11		
	Affective Properties	9		
	Other	2		
Teacher	Professional Competence	6	12	7.74
	Professional Commitment	3		
	Professional Guidance	1		
	Rate of New Inauguration	2		
Family	Family's Participation to Education	1	2	1.29
	Parenting Practices	1		
Other	Mitigating Bias in Semi-Experimental Studies	1	3	1.93
	Achieving the Objectives of "No Child Left Behind Act"	1		
	University Achievement of Black Women	1		
Total		155	155	100

According to Table 2, it seems that dependent variables were grouped in four themes as "student", "teacher", "family", and "other." The most studied dependent variable was "student" (89.03%) which was followed by "teacher" (7.74%) and "family" (1.29%).

The highest frequency belonged to the "academic performance" variable among the dependent variables under the theme of "student" by a wide margin. This was followed by the "attitude towards learning/school", "cognitive process skills", and "affective properties" variables. It is seen that the highest frequency belonged to the "professional competence" among the dependent variables under the theme of "teacher", which was followed by "professional commitment." The theme of "family" included the dependent variables of "family participation in education" and "parenting practices." It is also understood that there are three different variables under the theme of "other."

The independent variables studied with the dependent variable of "academic performance" under this theme are shown in Table 3 and the independent variables studied with the dependent variables of "attitude towards learning/school", "cognitive process skills", and "affective properties" are presented in Table 4.

Table 3. Distribution of the Independent Variables Studied with the Dependent Variable of "Academic Performance"

Independent Variable		RER	ERR	LI	JREE	ER	TJER	f	%
Learning Process	Value Affirmation Exercises				1			41	40.19
	Kindergarten Mathematics Teaching Program				1				
	My Teaching Partner Program				1				
	Lecturing in Laboratory			1					
	Use of Animation			1					
	Use of Multimedia with Text and Image Content			1					
	Recall Practice			1					
	Screen Using by Touching and Dragging			1					
	Self-Referential Spelling			1					
	Concept Mapping			1					
	Concept Education						1		
	Types of Explanation			1					
	Problem-Based Learning			1					
	Reflective Statement			1					
	Repeating the Educational Material			1					
	Autonomous and Controlled Motivation Practices			1					
	Reading Practice			1	2		1		
	Text Practice			3					

	Word Education				2				
	Methods of Writing Teaching						1		
	Causative Practices				1				
	Team-Based Learning						1		
	Instructional Program of Note-Taking Skills						1		
	Information Organization Practice			1			1		
	Technology-Enriched Story	1							
	Mobile Device Usage		1						
	Visual Signs in Learning Materials			1					
	Monitoring Gestures			1					
	Use of Concretization Sheet			1					
	Internal/External Reference Model Framework			1					
	Spontaneous Focusing on Numbers			1					
	Problem Solving			1					
	Image Education						1		
	Foreign Language Speaking in Classroom			1					
Student	Demographics (race, gender, age, etc.)	1		6		5	5	31	30.39
	Having Classmates with Behavioral Disorders						1		
	Psychological Needs						1		
	Late Enrollment in Kindergarten or Nursery						1		
	Psychological Wear towards School			1					
	Disciplinary Problems			1					
	Pastime Activities of Students			1					
	Students in the Lower Quarter of Normative Distribution				1				
	Cognitive Properties	1							
	Pre-Kindergarten Education		2						
	Epistemic Point of View			1					
	Time Spent When Doing Homework			1					
	Executive Functions			1					
	Perception of Self			1					
Learning Environment	Classroom Environment					2		11	10.78
	School Environment	3		1			3		
	Home Environment						1		
	Real World Educational Settings				1				
Teacher	Teacher Experience					1		8	7.84
	Teacher Qualities					1			
	Homework Feedbacks of Teachers						1		
	Feedback Methods of Teachers	1	1	1					
	Teacher Guidance						2		
Family	Parents' Opinions on School						1	6	5.88
	Parental Help with Homework						1		
	Parental Attention		1				2		
	Educational Level of Parents			1					
Other	Kingsborough Community College Learning Communities				1			5	4.90
	No Child Left Behind Act				1				
	Scholarship Draw				1				
	University Placement Program						1		
	Small High School Movement					1			
Total								102	100

As is seen in Table 3, there are six themes in which the independent variables studied with the dependent variable of "academic performance" under the theme of "student" were grouped. Other variables were listed by their frequencies as "learning process", "student", "learning environment" and "teacher", and "family" and "other." The independent variable which was studied with the dependent variable of "academic performance" the most was "learning process" (40.19%). In the learning process, experimental practices such as "concept mapping" and "use of animation" were conducted and their effects on academic performance were measured in an effort. The second

independent variable which was studied with the dependent variable of "academic performance" the most was "student" (30.39%). In general, the effect of students' demographics along with their cognitive and affective properties on academic performance was examined. "Learning environment", "teacher", and "family" were other dependent variables of which relationships with academic performance were investigated.

It is seen that the dependent variables under the theme of "student" except "academic performance" were "attitude towards learning/school", "cognitive process skills", and "affective properties." These variables and the independent variables studied with them are given in Table 4.

Table 4. Distribution of the Independent Variables Studied with the Dependent Variables o "Attitude towards Learning/School", "Cognitive Process Skills", and "Affective Properties"

Dependent Variable	Independent Variable	RER	ERR	LI	JREE	ER	TJER	f	%
Attitude towards Learning/School	Video-Based Professional Development Practices for Teachers			1				14	41.17
	Teacher-Student Relationship		1	1					
	Racial Climate of School						1		
	Computer-Based Feedbacks			1					
	Material and Nonmaterial Student Incentives				1				
	Homework Feedbacks of Teachers						1		
	Socio-Economical Status					1			
	Gender				1	1			
	Self-Efficacy						1		
	Academic Performance						1		
	Subjective Task Value						1		
	Dropout Prevention Policy	1							
Cognitive Process Skills	Weighed Denial Strategy			1				11	32.35
	Peer Teaching			1					
	Problem Solving			2					
	Multimedia with Text and Image Content			1					
	Critical Thinking Education			1					
	Epistemological Understanding			1					
	Finger-Following			1					
	Mental Counting			1					
	Movie Clips			1					
	School-Based Physical Activity Efforts		1						
Affective Properties	Instructional Guidance						1	9	26.47
	Problem Solving Activities			1					
	Minority Students					1			
	My Teaching Partner Program				1				
	Classroom Management Techniques						1		
	Certification Education						1		
	Student Tagging						1		
	Parental Behaviors						1		
	Teacher Behaviors						1		
Total								34	100

It is seen in Table 4 that quite diversified independent variables were used in the papers. Majority of these variables was experimental practices again conducted in the learning process (finger-following, mental counting, movie clips, multimedia with text and image content, etc.)

The dependent variables under the theme of "teacher" were "professional competence", "professional commitment", "new inauguration", and "professional guidance." The independent variables studied with these dependent variables are given in Table 5.

Table 5. Distribution of the Independent Variables Studied with the Dependent Variable of "Teacher"

Dependent Variable	Independent Variable	RER	ERR	LI	JREE	ER	TJER	f	%
Professional Competence	Status of Being in the Teacher Training Team						1	6	50
	Educatory Program Materials			1					
	Video Usage in Teacher Education		1						
	Entrepreneurship Training						1		
	Innovations in the System of Teacher Transfer to Staff					1			
	Innovation-Competence Practices for Students			1					
Professional Commitment	Teacher's Self-Efficacy Belief		1					3	25
	Cognitive and Personality Traits			1					
	Job Satisfaction			1					
New Inauguration	Racial Climate of School						1	2	16.66
	School's Status of Urbanization						1		
Professional Guidance	School Factors						1	1	8.33
Total								12	100

According to Table 5, the trainings provided for teachers (status of being in the teacher training team, use of educatory program materials, video usage in teacher education, entrepreneurship training, etc.) and school factors (racial climate of school, school's status of urbanization, etc.) were used as independent variables.

The dependent variables under the theme of "family" were "family participation in education" and "parenting practices." The independent variables studied with these dependent variables are shown in Table 6.

Table 6. Distribution of the Independent Variables Studied with the Dependent Variable of "Family"

Dependent Variable	Independent Variable	RER	ERR	LI	JREE	ER	TJER	f	%
Family's Participation to Education	Social Relationship Network						1	1	50
Parenting Practices	Parents' Opinions on School						1	1	50
Total								2	100

As is seen in Table 6, the least studied dependent variable theme was "family." The independent variables under the theme of "family" were "social relationship network" and "parents' opinions on school."

3.2 Distribution of the Papers by Sample or Study Group

Distribution of samples or study groups in the papers is given in Table 7.

Table 7. Distribution of the Papers by Sample or Study Group

Data Collection Instrument			RER	ERR	LI	JREE	ER	TJER	f	%	
Study Group	Student	Kindergarten			4	1	1	5	13	62.82	79.47
		Primary School			14	3	3	9	31		
		Secondary School			15	4	4	9	32		
		High School			7	2	2	6	16		
		College				1	1		2		
		University			15	1	1		18		
		Special Education							1		
	Teacher				4	4	4	10	22	12.22	
	Adult				4				4	2.22	
	Parent							3	3	1.66	
	Author						1		1	0.55	
Document	Paper		17	13			3		33	18.33	20.53
	Book			1					1	0.55	
	Newspaper						1		1	0.55	
	Daily						1		1	0.55	
	Program							1	1	0.55	
Total			17	14	63	21	22	43	180	100	

According to Table 7, it is seen that data collection instruments were grouped in two themes as "study group"

and "document." It is understood that majority (79.47%) of the research studies in the journals were on study groups which were composed of individuals while the studies examining documents were lesser (20.53%) in numbers.

The most examined documents were scientific papers (18.33%) and documents such as book, newspaper, daily, and program were used in lesser amounts. It is seen that studies on students among all study groups occupied the largest place (62.82%). This was followed by teachers (12.22%), adults (2.22%), parents (1.66%) and authors (0.55%) respectively.

3.3 Distribution of the Papers by Research Methods

The distribution of the papers by research methods is given in Figure 8.

Table 8. Distribution of the Papers by Research Methods

Research Method	**Research Design**	**f**	**%**	
Quantitative Research	Experimental	55	32.54	66.86
	Survey	50	29.58	
	Literature Compilation Meta-Analysis	8	4.73	
Qualitative Research*		49	29	29
Mixed Research		7	4.14	4.14
Total		169	100	100

*This section could not be detailed because the design used by the qualitative research method was not specified in majority of the studies examined.

According to Table 8, the papers were grouped in three themes as "quantitative research", "qualitative research" and "mixed research." The findings show that the quantitative research studies were published more and their percentage among all research studies were 66.86%. The quantitative research studies were listed by their frequency as experimental (32.54%), non-experimental (29.58%), and literature compilation meta-analysis (4.73%).

Qualitative research studies in the articles examined were in the second place in terms of publication frequency and their percentage was 29% among all research studies. Unlike the routine in publications in Turkey, detailed and clear statements on research designs in the papers in these journals were not observed much.

It was found that the least used research methods was the mixed research and its percentage was 4.14%. In consideration of the findings obtained, it can be said that the quantitative research studies were the most preferred method, the most preferred research design was experimental design, and the least used research method was mixed research in the papers published in high-impact SSCI journals.

3.4 Distribution of the Papers by Data Collection Instruments

Distribution of the papers by data collection instruments are given in Table 9.

Table 9. Distribution of the Papers by Data Collection Instruments

	Data Collection Instrument		**RER**	**ERR**	**LI**	**JREE**	**ER**	**TJER**	**f**	**%**	
Document	Scientific Text (paper, report, etc.)		17	12	15	14	12	16	86	32.08	38.78
	School Records	Achievement Grades			3	1	5	4	13	4.85	
		Number of Absences				2		1	3	1.11	
		Enrollment in School				2			2	0.74	
Test	Achievement				26	8	2	13	49	18.28	27.57
	Ability				10	2			12	4.47	
	Skill				1	3			4	1.49	
	Content Evaluation					1		1	2	0.74	
	Educational Environment Characteristics Test					1			1	0.37	
	Personality					1			1	0.37	
	Word and Mathematics Preference Test					1			1	0.37	
	Attitude							1	1	0.37	
	Recall							2	2	0.74	
	Competence							1	1	0.37	
Questionnaire					27	3	3	13	46	17.16	17.16
Scale					15		2	8	25	9.32	9.32
Interview					3		3	5	11	4.19	4.19
Observation					4	1	3		8	2.98	2.98
Total			17	12	104	40	30	65	268	100	100

As is seen in Table 9, 268 data collection instruments were used in the papers examined in total. It can be

said that various documents were preferred as data collection instrument (38.78%) and the most used documents were papers, reports, etc. (32.08%)

Following the documents, the second most used data collection instrument was various tests (27.57%). Among the types of test, achievement tests were the preference by a wide margin and the rate of usage was 18.28%. The documents and tests, which were the most used data collection instruments in the research studies, were followed by questionnaire (17.16%), scale (9.32%), achievement grades (4.85%), interview (4.19%), and observation (2.98%).

3.5 Distribution of the Papers by Data Analysis Methods and Techniques

The distribution of the papers examined in the research by data analysis methods and techniques are given in Table 19-Table 13.

Table 10. Distribution of the Papers by Data Analysis Methods and Techniques

Data Analysis Method		RER	ERR	LI	JREE	ER	TJER	f	%	
Quantitative Analysis	Single-Variable Tests			61	18	10	30	119	57.84	78.67
	Multivariable Tests			29	2	1	11	43	20.83	
Qualitative Analysis		17	12	3	1	6	5	44	21.33	21.33
Total		17	12	93	21	17	46	206	100	100

According to Table 10, the data analysis methods were grouped in two themes as “quantitative analyses” and “qualitative analyses.” It can be said that the quantitative analyses (78.67%) were used more than the qualitative analyses (21.33%) and the single-variable tests (57.84%) as a quantitative analysis method were used more than the multivariable tests (20.83%).

Table 11. Distribution of the Papers by Single-Variable Tests as a Quantitative Analysis Method

Data Analysis Method			RER	ERR	LI	JREE	ER	TJER	f	%	
Single-Variable Tests	Parametric Tests	Regression Analysis			17	12	8	16	53	44.53	90.74
		ANOVA (F-test, Variance Analysis)			19	4	1	8	32	26.89	
		T test			12			3	15	12.60	
		Pearson's Correlation Analysis			2		1		3	2.52	
		Fisher’s Z tests			1			1	2	1.68	
		Horizontal Growth Curve Model			2				2	1.68	
		Autoregressive and Cross-Lagged Panel Analysis			1				1	0.84	
	Nonparametric Tests	Wilcoxon’s Signed-Rank Test			1	1		2	4	3.38	9.26
		Mann-Whitney U			2				2	1.68	
		Kruskal-Wallis			1	1			2	1.68	
		Spearman Brown Correlation			2				2	1.68	
		Wald Test			1				1	0.84	
Total					61	18	10	30	119	100	

According to Table 11, single-variable tests as a quantitative analysis method were categorized as parametric and non-parametric tests. 90.74% of the single-variable tests used in the research studies were composed of parametric tests. It is seen that the use of non-parametric tests was quite less than parametric tests.

It was found that the most used parametric test was regression analysis by a wide margin and its rate of usage was 44.53%. It was followed by ANOVA (26.89%), t test (12.60%), and Pearson's Correlation Analysis (2.52%). The most used single-variable test among non-parametric tests was Wilcoxon’s Signed-Rank test (3.38%).

Table 12. Distribution of the Papers by Multivariable Tests as a Qualitative Analysis Method

Data Analysis Method		RER	ERR	LI	JREF	ER	TJER	f	%
Multivariable Tests	Factor Analysis			12				12	27.90
	Structural Equity Model			5			3	8	18.60
	ANCOVA			5			2	7	16.29
	MANOVA			3			3	6	13.95
	Hierarchic Linear Modeling				1		3	4	9.30
	MANCOVA			3				3	6.97
	Hotelling's T Test				1			1	2.32
	Multi-Level Lambda			1				1	2.32
	Econometric Analysis					1		1	2.32
Total				29	29	1	11	43	100

According to Table 12, the most used multivariable test was factor analysis (27.90%) and it was followed by structural equity model (18.60%), ANCOVA (16.29%), and MANOVA (13.95%). The least used multivariable tests were Hotelling's T Test, Multi-Level Lambda, and Econometric Analysis (2.32%).

Table 13. Distribution of the Papers by Qualitative Analyses

Data Analysis Method		RER	ERR	LI	JREE	ER	TJER	f	%
Qualitative Analysis	Descriptive Analysis	9	6		1	4		20	45.45
	Meta-Analysis	6	4					10	22.72
	Content Analysis	2	2	1		2	3	10	22.72
	Latent Semantic Analysis			2				2	4.57
	Thematic Analysis						1	1	2.27
	Concept Map Analysis						1	1	2.27
Total		17	12	3	1	6	5	44	100

According to Table 13, the most used qualitative analysis methods was descriptive analysis method (45.45%) which was followed by meta-analysis and content analysis (22.72%). The least used qualitative analysis methods were thematic analysis and concept map analysis (2.72%).

4. Discussion, Conclusion and Recommendations

The purpose of this study was to reveal the general tendency of studies in the field of educational sciences by examining the papers in the high-impact A-class SSCI journals on educational sciences, to which qualified papers are accepted from all round the world, in terms of their dependent-independent variables, sample or study groups, research designs, data collection instruments, and data analysis techniques.

When examining the dependent variables used in the papers, it is seen that the papers used dependent variable of "student" the most which was followed by "teacher." The most studied dependent variable in regard to "student" was "academic performance" which was followed by "attitude towards learning/school", "cognitive process skills", and "affective properties." The most studied dependent variables in regard to "teacher" were "professional competence" and "professional commitment." The dependent variables studied in regard to "family" were "family participation in education" and "parenting practices."

It is seen that a quite large number of dependent variables were used in the papers examined. Majority of the independent variables studied with the dependent variable of "student" was experimental practices again conducted in the learning process (concept mapping, use of animation finger-following, mental counting, movie clips, multimedia with text and image content, etc.) These practices were conducted with experimental studied and then the effect of these practices on academic performance was mostly examined in an effort. Regarding "teachers", the trainings provided for teachers (status of being in the teacher training team, use of educatory program materials, video usage in teacher education, entrepreneurship training, etc.) and school factors (racial climate of school, school's status of urbanization, etc.) were studied as independent variables. The independent variables which were studied under the theme of "family" were "social relationship network" and "parents' opinions on school."

Karadag (2009) found in the doctoral theses that the most studied topics are achievement, attitude, constructivist learning, learning styles, social studied teaching and first reading-writing teaching. In the research performed by Bıkmaz, Aksoy, Tatar and Altınyuzuk (2013) to examine doctoral theses in the field of Educational Programs and Instruction, it was seen that the most studied subjects were teaching approaches, methods and techniques as well as effectiveness of different program models and these were followed by the teacher education. Ozan and Kose (2014) examined the research studied in the field of Educational Programs and Instruction by their

subjects and determined that the most published papers were on the subjects of teaching, student-teacher characteristics, and learning. It is seen that subjects of the research studies conducted in Turkey comply with the subjects of international papers. Studies on the learning process have been gaining momentum in Turkey, too. Yet, whereas the research studies focusing on the learning process in high-impact SSCI journals in general are long-term experimental studies, studies that focus on the learning process in Turkey use short-term survey method.

Majority of the papers in the journals within the scope of the research were studies conducted with the study groups comprising of individuals. There were fewer studies that examined the documents. The most examined documents were scientific papers and documents such as book, newspaper, daily, and program were used in lesser amounts in the sample. The most studied study group was students among all study groups, who were followed by teachers, adults, parents, and authors respectively.

Similarly to this result of the research, in the content analysis of the papers in international SSCI journals performed by Yalcın, Yavuz and Dibek (2015), it was seen that elementary and high school students constituted the half of the samples in those papers with the other half being teachers and university students. The case is different in Turkey. Goktas et al. (2012a) examined the papers published in the educational journals in Turkey between 2005 and 2009 and determined that the most studied sample was students of faculty of education. Fazlıogulları and Kurul (2012) concluded in their study that most of the doctoral theses in educational sciences were conducted with higher education students. In the study performed by Ozan and Kose (2014) aiming to reveal the research tendencies in the field of Educational Programs and Instruction, it was determined that the most studied sample was university students who were followed by teachers, and the least studied sample was elementary school students. It can be thought that the reason why more studies are conducted with university students in Turkey is that they are easily accessible. It is seen in foreign papers that the studies conducted with students are followed by the ones conducted with teachers. In Turkey, the former ones are followed by the studies conducted with teacher candidates rather than teachers. Bıkmaz et al. (2013) revealed in their study examining the doctoral theses in the field of Educational Programs and Instruction that the most studied sample were teacher candidates. This may be related to the fact that teacher candidates are more accessible than teachers.

Quantitative research was used more than qualitative research and the least used research methods was mixed research in the papers published in high-impact SSCI journals. The most used type of quantitative research was experimental research. Unlike the routine in publications in Turkey, detailed and clear statements on research designs in the papers in these journals were not observed much.

Cakıcı and Ilgaz (2011) examined the theses written on Elementary Science and Technology Program between 2005 and 2010 and found that quantitative research was used much more than qualitative research. They also revealed that the survey model was frequently used in qualitative research studies and the experimental studies were less used in the theses. Ozan and Kose (2014) determined that the most used design was non-experimental designs and the least used one is qualitative designs in the research studies in the field of Educational Programs and Instruction. Accordingly, majority of the experimental papers were semi-experimental while most of the non-experimental papers were in descriptive survey model. Erdem (2011) examined the scientific papers written in Turkish education as a foreign language and revealed that majority of them were written with quantitative research methods. Selcuk et al. (2014) found that majority of the studies in the Journal of Education and Science were conducted with quantitative research methods, qualitative studies and mixed methods were used less. In the study performed by Balcı and Apaydın (2009) to examine educational management research studies and the studies performed by Karadag (2009), Fazlıogulları and Kurul (2012) to examine doctoral theses in the field of educational sciences, it was revealed that quantitative research methods were used more.

Based on all these studies, it can be said that majority of the research studies in Turkey have been conducted with quantitative research methods and descriptive survey model has been preferred in quantitative research studies. The reason for using quantitative research more can be explained by easier and quicker data collection and interpretation. Differently from papers published in high-impact SSCI journals, studies using only the survey method in Turkey cannot go beyond revealing the existing situation.

It was seen in the papers examined that various documents were preferred as data collection instrument and the most used documents were papers, reports, etc. The second most used data collection instrument were various tests. Among type of tests, achievement tests were the most preferred ones by a wide margin. They were followed by questionnaire, scale, achievement grades, interview, and observation respectively.

A similar tendency is in question for the research studies in Turkey. In the study performed by Goktas, Hasancebi, Varısoglu, Akcay, Bayrak, Baran and Sozbilir (2012) to examine the educational research studies published in the journals of education in Turjey between 2005 and 2009, it was determined that the most used data collection instrument was questionnaires which was followed by interest, attitude, and personality tests. Selcuk et al. (2014) examined the papers published in the Journal of Education and Science between 2007 and 2013 and found that attitude, personality and perception tests as well as questionnaires were used more in the studies and the least preferred method was observation. Ozan and Kose (2014) examined the research tendencies in the field of Educational Programs and Instruction and questionnaires and scales were used in the research studies the most. It

was found in the papers published in the journals of educational sciences in Turkey between 2005 and 2006 which were examined by Erdem (2011) that the most used instruments were mainly grading scales which were followed by questionnaires.

Quantitative analysis methods used in the papers were grouped as being single-variable and multivariable. A great part of single-variable tests were composed of parametric tests. It is seen that the use of non-parametric tests was quite less than parametric tests. It was found that the most used parametric test was regression analysis by a wide margin. It was followed by ANOVA, t test, and Pearson's Correlation Analysis respectively. The most used single-variable test among non-parametric tests was Wilcoxon's Signed-Rank test. The most used multivariable test was factor analysis and it was followed by structural equity model, ANCOVA, and MANOVA. The most used qualitative analysis methods was descriptive analysis method which was followed by meta-analysis and content analysis. The least used qualitative analysis methods were thematic analysis and concept map analysis.

The case is different in Turkey. Ozan and Kose (2014) stated that the most used quantitative analysis techniques in the papers they examined were mean/standard deviation values, frequency/percentage values, t test and ANOVA test while the most used qualitative analysis technique was the content analysis. ANCOVA, Regression analysis, MANOVA, MANCOVA, and structural equity model were the least used analysis techniques. Similarly, Erdem (2011) stated that the most used techniques were t test, ANOVA, and descriptive statistics in the papers examined. This shows that the studies in Turkey have been conducted with more limited and accustomed data analysis techniques compared to international papers.

The following recommendations are suggested in accordance with the research results:

1. Studies should be performed to address students' academic performances, attitudes towards learning/school, cognitive process skills and affective properties.
2. Research that focuses on the effects of experimental practices to be developed in the learning process on students' academic performances should be attached importance to.
3. Studies should be conducted to investigate teachers' professional competences, professional commitments and the effects of the trainings provided for them on their professional lives.
4. The effects of parents' participation in education and parenting practices on students should be investigated.
5. Experimental studies should be preferred and encouraged instead of the studies conducted only using the survey methods.
6. The number of studies in which elementary and high school students rather than university students and teacher candidates rather than teachers are taken as sample should be increased.
7. The number of studies using mixed methods with quantitative and qualitative approaches together should be increased.
8. Multivariable analyses and different analysis techniques should be used more frequently. As much appropriate as for the research problems, regression analysis, structural equity model, ANCOVE, MANOVA, and MANCOVA data analysis techniques should be used more often.
9. Similar research studies should be repeated periodically in an extensive teamwork.
10. This study is limited to papers published in 2015 to reveal current tendencies. Researchers may conduct such studies for different years.

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