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RETHİNKİNG CLASSROOMS: A COMPREHENSİVE ANALYSİS OF POSTGRADUATE THESES ON THE FLİPPED CLASSROOM MODEL İN TURKEY

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ABSTRACT

This study examines the descriptive features, research designs, thematic distributions, and citation characteristics of the postgraduate theses on the Flipped Classroom Model (FCM) in Turkey. Within this context, 117 postgraduate theses submitted between 2014 and 2020 were analyzed in terms of their types, number of pages, publication language and year, relevant institutions, research methods, keywords, subject areas, effects and disadvantages of the model, and citation characteristics (number of citations, frequently cited journals, articles, books, authors). Content and citation analyses were employed to analyze the data of the study. The findings showed that most of the postgraduate studies were submitted at Gazi University and were carried out in a mixed research design. It has been also revealed that the most frequent keywords were "FCM", "academic achievement" and "teaching English as a foreign language". Moreover, it was determined that the FCM is a teaching method that is frequently used in language education and preferred by different academic fields of educational sciences. So, the model has been seen to have a positive effect on the learning environment in terms of academic achievement, motivation, permanent learning, and classroom interaction. However, it has been also determined that there are disadvantages such as the lack of digital competencies of teachers and students during the process and the cost in terms of time and technological infrastructure. In addition, it has been also revealed that the UK-labeled Computers & Education magazine directed the intellectual interest of the field and shaped the cognitive structure of researchers from the USA such as Jonathan Bergmann, Aaron Sams, Jeremy Strayer.

Keywords: Citation analysis, content analysis, postgraduate theses, flipped classroom model

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SINIFLARI YENİDEN DÜŞÜNMEK: TÜRKİYE'DE TERSYÜZ EĞİTİM MODELİ ÜZERİNE LİSANSÜSTÜ TEZLERİN KAPSAMLI ANALİZİ

ÖZET

Bu çalışma, Türkiye'deki ters yüz edilmiş sınıf (TYES) modeli üzerine yapılan lisansüstü tezlerin betimleyici özelliklerini, araştırma tasarımlarını, tematik dağılımlarını ve atıf özelliklerini incelemektedir. Bu çerçevede 2014-2020 yılları arasında sunulan 117 lisansüstü TYES tezi; türleri, sayfa sayıları, yayın dili ve yılı, ilgili kurumlar, araştırma yöntemleri, anahtar kelimeler, konu alanları, modelin etkileri ve dezavantajları ile atıf özellikleri (atıf sayısı, sık atıf yapılan dergiler, makaleler, kitaplar, yazarlar) açısından analiz edilmiştir. Çalışmanın verilerini çözümlemek için içerik ve atıf analizleri kullanılmıştır. Bulgular, lisansüstü çalışmaların çoğunlukla Gazi Üniversitesi'nde sunulduğunu ve karma araştırma tasarımının kullanıldığını göstermiştir. En sık kullanılan anahtar kelimelerin "TYES", "akademik başarı" ve "yabancı dil olarak İngilizce öğretimi" olduğu ortaya çıkmıştır. Ayrıca, TYES'nin dil eğitiminde sıkça kullanılan ve eğitim bilimlerinin farklı akademik alanları tarafından tercih edilen bir öğretim yöntemi olduğu belirlenmiştir. Modelin, akademik başarı, motivasyon, kalıcı öğrenme ve sınıf içi etkileşim açısından öğrenme ortamı üzerinde olumlu bir etkisi olduğu görülmüştür. Ancak, öğretmenlerin ve öğrencilerin dijital yeterliliklerinin eksikliği ve zaman ile teknolojik altyapı açısından maliyet gibi dezavantajlarının da olduğu saptanmıştır. Ek olarak, İngiltere adresli Computers & Education dergisinin alanın entelektüel ilgisini yönlendirdiği ve ABD'den Jonathan Bergmann, Aaron Sams, Jeremy Strayer gibi araştırmacıların bilişsel yapısını şekillendirdiği ortaya çıkmıştır.

Anahtar Kelimeler: Atıf analizi, içerik analizi, lisansüstü tezler, ters yüz edilmiş sınıf modeli

1. INTRODUCTION

Social, economic and psychological disruptions arising from the traditional model fundamentally have changed the methodological practices in education processes nowadays. Accordingly, the needs and inadequacies in the education system are becoming more and more evident. This situation calls for a renewal to make the learning and teaching process more qualified. Within this context, it has been noteworthy to construct educational practices with different and flexible teaching-learning solutions. From this point of view, the FCM, in which the knowledge is structured by the learner based on learner-centered activities, allowing each learner to progress at their own learning pace and supported by technological equipment, is of critical importance in terms of the learning environment (Chen, Wu & Marek, 2017; Critz & Knight, 2013; Foldnes, 2016; Rotellar & Cain 2016; Sohrabi & Iraj, 2016; Yılmaz, 2017).

This method, known as the FCM, first appeared conceptually in the literature in 2007. The method, also referred to as "reversed teaching", "blended learning" or "flipped classroom", has gained popularity as a new teaching model instead of the known learning model (Anderson et al., 2017; Barseghian, 2011; Butt, 2014). The "flipped classroom" model was developed by Jonathan Bergmann and Aaron Sams to provide a qualified teaching experience to secondary school students who had learning deficiencies in their courses and therefore lack teaching (Bergmann & Sams, 2012). The flipped classroom is a contemporary pedagogical method that uses asynchronous video lessons and practices as homework and active, group-based problem-solving activities in the classroom (Bishop &

Verleger, 2013). In other words, it means an educational practice in which lessons are provided outside the classroom and classroom teaching time is allocated to various learning activities (Arnold-Garza, 2014; Baepler, Chen, Wang, & Chen, 2014; DeLozier & Rhodes, 2017; Francl, 2014; Hwang & Lai, 2017; Love, Hodge, Grandgenett, & Swift, 2014; Moffett, 2015; Walker, & Driessen, 2014; Wanner & Palmer, 2015). In the flipped classroom, the responsibility and ownership of learning through participation in interactive activities shifts from the teacher to the students (Ferreri & O'Connor, 2013; Hao, 2016; McLean et al., 2016; Ramnanan and Pound, 2017; Simpson & Richards, 2015; Sharma et al., 2015; Pierce & Fox, 2012; Wilson, 2013). In this way, students' high-level thinking skills and creativity can be developed, and their academic success, motivation for learning, self-efficacy, cooperation, and class participation can be improved (Awidi & Paynter, 2019; Chen, Lui, & Martinelli, 2017; Chuang, Weng & Chen, 2018; Frand, 2000; Pearson, 2012; Roehl, Reddy, & Shannon, 2013; O'Flahertyve Phillips, 2015). This approach has became the focus of academic interest with its features such as being student-centered, suitable for active learning, supporting learner differences, and offering an alternative to traditional course-based teaching (Evseeva & Solozhenko, 2015; Herreid & Schiller, 2013; Hew and Lo, 2018; Mazur, 2009; Rotellar & Cain, 2016; Ayçiçek, 2018).

1.1. Literature Review

Postgraduate theses are resources that make original contributions to a discipline and provide evidence-based systematic information on the subject studied. Theses, which contribute to the development of scientific fields and increase social benefit, are important because they both help to understand the literature and form the basis for decision processes. In addition, they are a powerful tool in creating a window of thought for the studies in a particular field, showing trends in the methods, themes, and gaps in the field, as well as planning science policy (Davies, Howell, & Petrie, 2010). By examining the sections (introduction, method, findings, discussion, conclusion) and bibliographies of the theses, findings and inferences can be made about the intellectual structure of the field and scientific communication in the field. The way scientists in the field use information, their sensitivity, and awareness levels for information exchange can be determined. Accordingly, it can be noted that graduate theses are among the basic academic knowledge outputs. In this context, the postgraduate theses submitted on the FCM in Turkey draw attention as a current and valuable research topic.

This study examines the descriptive, conceptual, methodological dimensions and bibliometric citations of the postgraduate theses on FCM in higher education institutions (state/private) in Turkey. These theses were primarily examined in terms of their type, the number of pages, publication language, annual thesis production, relevant institutions, and research design. In the second stage, content analysis was carried out and the conceptual aspects of the theses, their subject areas, and the effects of the model on the educational environment were determined. In the third stage, in the light of bibliometric citation analysis, the most cited journals, articles, books, and researchers in the bibliographies of the theses were determined. With this feature, the study enables researchers in academic fields to scientifically identify phenomena that they are relatively aware of but cannot explain with evidence-based objective

information. Thus, it is possible for researchers who can define research orientations and cognitive scope in the field, to turn to the process of producing new and original knowledge.

Many academic studies in the international literature examine the FCM with its main lines (Tucker, 2012; Jinlei, Ying, & Baohui, 2012; Milman, 2012; Bishop & Verleger, 2013; Enfield, 2013; Herreidve Schiller, 2013; Abeysekera et al. Dawson, 2015; Blau & Shamir-Inbal, 2017; Sergis, Sampson & Pelliccione, 2018). The literature also shows that there are studies examining FCM using methods such as content analysis, meta-analysis, and systematic review (Zainuddin & Halili, 2016; Uzunboylu & Karagözlü, 2017; Chen et al., 2018; Gillette et al., 2018; Cheng, Ritzhaupt & Antonenko, 2019; Turan, & Akdağ-Çimen, 2020). For example, using the content analysis method, Zainuddin and Halili (2016) analyzed 20 articles about the FCM in international journals between 2013 and 2015 in terms of research pattern, topic trends, and keywords. The results revealed that the FCM is applied in different areas and some technological tools are used as online platforms. Similarly, Uzunboylu and Karagözlü (2017) determined the research methods and analysis techniques, relevant countries, and research trends of 48 studies on flipped classrooms. In a study by Cheng, Ritzhaupt, and Antonenko (2019), they evaluated 55 articles published in various journals between 2000 and 2016 comparing classrooms using the FCM with classrooms that did not use it, using meta-analysis. They determined that there is a statistically significant effect size in favor of the flipped classroom strategy for educational practices and research. Chen et al. (2018) conducted a meta-analysis covering the academic outcomes of the FCM over a total of 46 publications, including 36 articles, 1 thesis, and 9 conference papers. The results reveal that there has been a rapid increase in the number of articles and that research in this field is mainly related to academic achievement. Gillette et al. (2018) examined the effectiveness of the flipped classroom compared to the traditional course strategy, using 11 research papers on flipped classrooms published between 2000 and 2017 in a meta-analysis covering health education. Researchers have shown that the success of the flipped classroom may be associated with minimal gains in student knowledge compared to the traditional course. In the meta-analysis of research papers about the flipped classroom published in the field of English Language Teaching in the 2014-2020 period, research methods and the effectiveness of the approach were examined (Turan & Akdağ-Çimen, 2020). This review is important as it is a study that evaluates the current studies in the field and reports the changes. When the studies are examined, it is observed that compilations are using various research methods and techniques for the FCM. These studies report the effectiveness, strengths/weaknesses, and evolution of the model, research trends of publications, researcher, and country labels. Despite the increasing number of studies (ERIC, 2020; n=898; Scopus, 2020; n=3,776) on the FCM with contributions from different academic perspectives, there is no scientific study to analyze the research pattern and intellectual accumulation of the relevant literature in Turkey, and there has not been a systematic review of the literature yet. In this context, the literature on the Turkey-focused FCM has been comprehensively reviewed. The study differs from previous studies conducted in Turkey, with both the large data set available and the preference for a combined research method as an example for future studies. In this

respect, examining the status/development of a popular research topic among educational research through theses in Turkey may make it possible to position the content and trends at the national level in the context of developments in the literature and to understand the cognitive structure specific to Turkey in a whole (Barca & Hızıroğlu, 2009). Therefore, the results obtained in the study will serve as an information guide for academicians and education professionals who are interested in the FCM, and it will contribute to the expansion of the scope of the studies of researchers at the national/international level who will work on the subject area in different disciplines in the future, thus monitoring the scientific interaction with countries active in science over citation data. In addition, the research methods used in the study can guide educational science academics and practitioners to design new approaches to conduct original research. In this direction, it is aimed to reveal how the methodological tendency, conceptual framework, and intellectual knowledge in research are shaped by analyzing the content and citation of the postgraduate theses on the FCM completed in Turkey. So, the questions that guide the research are as follows:

How are the postgraduate theses on FCM in Turkey in terms of descriptive features (type of thesis, number of thesis and page, publication language, year of publication, relevant institution, research method)?

How are the postgraduate theses on FCM in Turkey in terms of prominent keywords, research topics, and impact analysis?

How are the postgraduate theses on FCM in Turkey in terms of citation characteristics (number of citations, frequently cited journals, articles, books, authors)?

2. METHOD

In line with the purpose of the research, this study benefited from content analysis, a qualitative approach so as to determine the methodological tendencies of the theses on the flipped classroom between 2014-2020. The content analysis offers a systematic and objective approach in the process of identifying and evaluating facts. In content analysis, also known as the method of analyzing documents (Elo ve Kyngäs, 2008), the materials to be examined are scrutinized and it could be possible to systematically identify (Colás, 1998) the facts and features of the literature of interest in an objective and verifiable way. In addition, the citation analysis method was used in the study to determine the journals, articles, books, and researchers that had an impact on the field in the context of the theses on the flipped classroom. Citation analysis is widely used to reveal scientific communication trends (Ding et al., 2014) by presenting views of scientific disciplines, evaluating the impact of research outputs, and observing knowledge transfer in fields.

2.1. Process of Selecting the Resources and Creating the Data Set

The main purpose of this study is to examine the theses on FCM in Turkey with content analysis and citation analysis. The first thesis on flipped classrooms in Turkey was submitted in 2014 and the subject is extremely popular among the scientific community. The search platform of the Higher

Education Council (YÖK) Thesis Center was used to access the theses on the flipped classroom. The YÖK Thesis Center, where the theses completed at universities in Turkey are registered, is a focal database that provides a consistent and high-quality control dataset for bibliometric studies. The researchers preferred to use the relevant database since YÖK Thesis Center provides a comprehensive data set at the national level. The review covers the period from 2014 to December 2020. Researchers entered the YÖK Thesis Center (https://tez.yok.gov.tr/UlusalTezMerkezi/) and made inquiries in line with the keywords determined through the "Advanced Search" tab. After completing the query for each word, the theses listed in case of two or more repetitions of the same or missing theses were cross-checked from the library addresses of the relevant universities. As a result of the query search, a total of 119 graduate theses were accessed. The full texts of the determined theses were downloaded and included in the study. The second aim of the research is to perform the citation analysis of the theses dealing with the FCM. For this purpose, necessary analyzes were made on the data set. In this respect, the citation analysis includes the data obtained from the bibliographies of the theses.

2.2. Data Collection

The Data Collection Form (DCF) used in the research consists of two main parts: content analysis and citation analysis. In the content analysis section, there is information about the theses regarding their type, the number of pages, publication language and year, the relevant institution, research method, keyword, subject area, effects, and disadvantages of the model. In the citation analysis section, there is information about citation counts and averages, cited journals, articles, books, and authors. Some other dimensions of citation characteristics were formulated by researchers. The purpose of examining these dimensions is to explain the pattern of scientific communication in the field and to identify the cognitive resources of the field by identifying scientific journals, books, and researches in which the theses are intellectually affected. In the process of developing the DCF, a draft form was first created by considering some dimensions in other flipped classroom examinations carried out in recent years (Bozkurt, Keskin, & De Waard, 2016; Özyurt & Özyurt, 2015; Veletsianos & Shepherdson, 2016; Zainuddin & Halili, 2016). These categories and research schemes in the DCF were preferred because they were adopted by field experts and used in flipped classroom studies in indexed journals in citation indexes. Following the purpose of the study, some adjustments were made on the form to make a standard evaluation under similar criteria when deemed necessary. The form was given its final shape by making trial examinations on several theses. Expert opinion was sought to increase the validity of the publication control form. After expert opinion, the final version of the DCF was created.

In the study, the steps of the guidelines developed for the research were followed during the data collection and analysis phase. The researchers developed a flowchart for the processes of identifying, inclusion, and exclusion of documents to be reviewed (Figure 1).

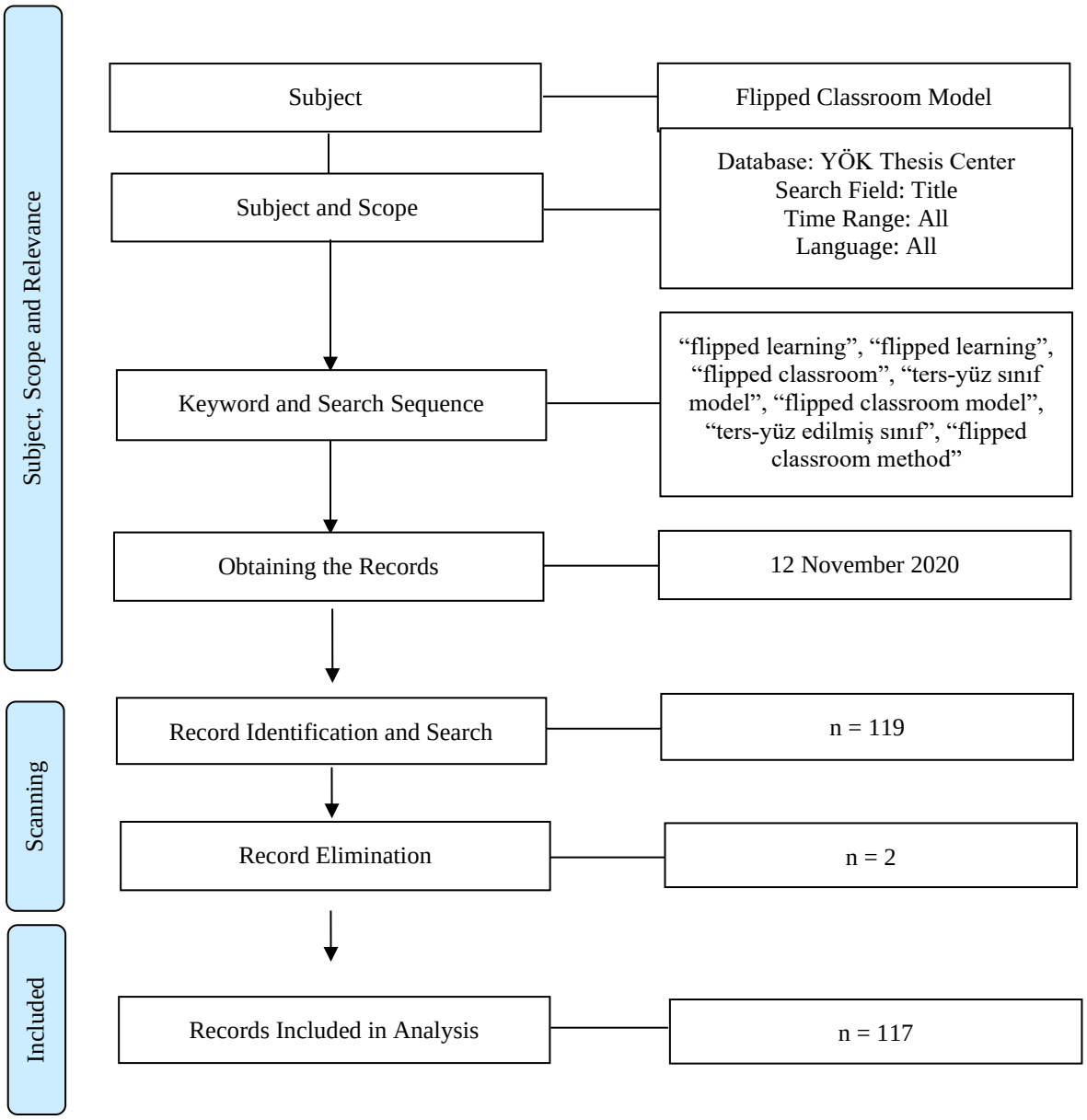


Figure 1. Research flow chart

117 theses that could be reached were included in the research. 2 theses, which were not given access permission and whose copies were not uploaded, were excluded from the examination.

2.3. Precautions Regarding Validity and Reliability

Research validity means the accuracy or reality of inferences from the findings of the research (Christensen, Johnson, & Turner, 2015). It has also been defined as the extent to which scientific research meets the concept intended to be measured (Neuendorf, 2002). In this study, researchers followed the steps of face validity, content validity, and content validity to control threats to validity. Face validity is related to the appearance of the data collection tool (Neuendorf, 2002). In this direction, the form developed by the researchers by examining the literature was presented to the language expert and assessment and evaluation expert after the trial studies. The form has been updated in light of the feedback received. After these processes, it was determined that the face validity of the form was

sufficient. In the second stage, the content validity of the form was questioned. Content validity is the capacity of the research scope to represent the targeted universe. For this to happen, the sample size included in the study must be large enough to represent the universe (Neuendorf, 2002). The scope of this study consists of all of the theses on the flipped classroom, which were registered in the YÖK Thesis Center at the time of the search. Two theses that could not be accessed were not be examined. Since all the records reached were included in the analysis, it is considered that the content validity of the study was ensured. Thirdly, the content validity of the form was evaluated. Content validity is the decision of how well a measurement tool measures the subjects and related behaviors (Balcı, 2015), and the extent to which the measurement reflects the content (Neuendorf, 2002). For this purpose, it was discussed whether the form was sufficient to reveal the aims of the research and to determine the content goals. In this direction, content validity was ensured by consulting the opinions of two researchers who are experts in the field of Educational Sciences regarding the coding and classification process. Reliability refers to the consistency and continuity of the measurements. There are four basic types of reliability: test-retest, parallel equivalent forms, internal consistency, and inter-rater reliability (Christensen, Johnson, & Turner, 2015). In this study, test-retest reliability and inter-rater reliability were used. To determine the test-retest reliability, the researchers performed a retest two weeks after the first test, and it was observed that there was a high correlation between the two sets of scores (%91,6). In addition, to reveal the consistency between the raters, the data sets created by the two researchers independently of each other were scored and it was understood that the reliability coefficient between the two score sets was positive and strong.

3. FINDINGS

This part of the study presents the descriptive findings on postgraduate studies, and the data based on content analysis and citation characteristics.

3.1. Descriptive Findings

Thesis Type, Number of Pages, and Publication Language

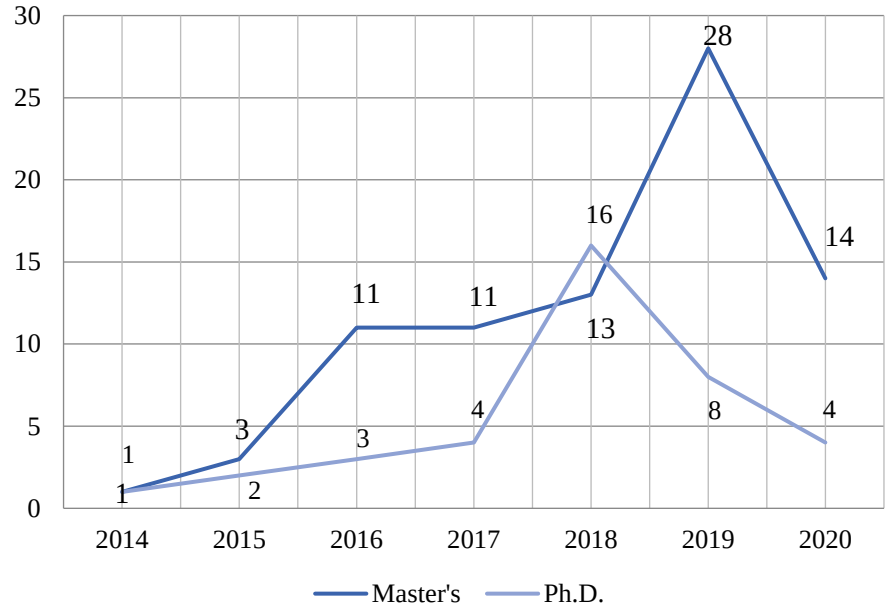
Out of a total of 119 theses, 81 (68.06%) are master's and 38 (31.93%) are Ph.D. theses. Master's theses have an average of 139 pages, while Ph.D. theses have an average of 246 pages. On the other hand, the publication language of the theses is mainly Turkish (n=89). It is seen that a total of 30 theses were produced in English, and these theses were master's theses (Table 1).

Table 1. Distribution of theses by type, number of pages, and publication language

Thesis Type	Number of Theses	Number of Page		Publication Language	
		n	Mean	Turkish	English
Master's	81	10851	134	55	26
Ph.D.	38	9359	246	34	4
Total	119	20210	380	89	30

Distribution by Years

In Graph 1, the distribution of the theses by years is presented. Accordingly, the first theses in the field were submitted in 2014.



Graph 1. Distribution of theses by years

Increasing academic interest (Gilboy, Heinerichs, & Pazzaglia, 2015) in the flipped classroom has created a strong publishing ecosystem that spans different academic fields. The reflections of this situation are also observed in Turkey. Accordingly, when we look at the distribution of theses yearly, it is understood that there was a remarkable acceleration in the number of master's thesis in 2016 (n=11), and a stable image was captured in the number of theses in 2017 (n=11) and 2018 (n=13). The number of master's theses increased by 215.38% in 2019 (n=28) compared to 2018. In 2020, it was determined that there was less interest in the FCM in master's theses, with a high decline compared to previous years. In the number of Ph.D. theses, 2018 (n=16) is the peak. At the same time, Ph.D. theses submitted this year are more than master's theses. Contrary to the increase in master's theses in 2019, the number of Ph.D. theses decreased, and this situation continued in 2020.

Relevant Institutions

The universities that have contributed to the FCM in the context of institutions were examined. Gazi University, with its deep-rooted history that started education in 1926 as Orta Muallim Mektebi, is the most basic academic institution that has contributed to the FCM in Turkey. Considering that the FCM has been discussed extensively in educational environments since 2012, it can be said that Gazi University has made progress in the subject area by conducting a certain level of research every year. Graduate programs (non-thesis master's, master's, Ph.D.) at Gazi University, which was declared a research university (2017) by the Council of Higher Education, are very diverse and comprehensive. In this respect, it is an institutionalized university with a strong academic tradition. Based on this, it is expected that Gazi University will support the increase of knowledge about flipped classrooms in

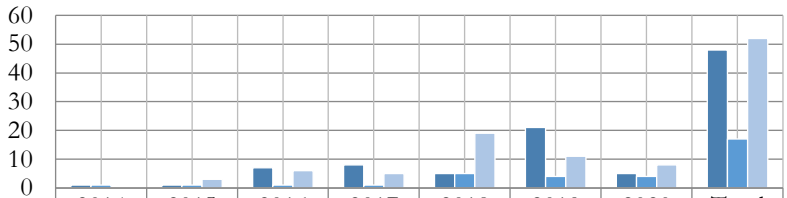
Turkey and maintain its leading role in the implementation of new approaches in teacher training in the upcoming period. The findings in the table point to interesting results regarding the theses about the FCM in Turkey. Hacettepe University, Middle East Technical University, Ankara University, which are also among the research universities, produced relatively few theses regarding flipped classrooms. In addition, it has been observed that the effectiveness of state universities in the literature has increased. At the same time, it has seen that Bahçeşehir University is an institution with high scientific efficiency in this field. On the other hand, when looking at the theses submitted in the field, it is clear that private universities produced have 7 theses in total. As of 2021, there are 104 faculties of education in public universities and 16 faculties of education in private universities in Turkey. When the theses are compared quantitatively, it is possible to see that very few of the theses about flipped classrooms are produced by private universities. Although there is a strong mass of researchers in Turkey who closely monitor the world, it is considered that research on flipped classrooms has not yet gained sufficient momentum.

Table 2. The most productive institutions

Institutions	2014	2015	2016	2017	2018	2019	2020	Total	%
Gazi University	1	1	1	3	5	1	2	14	11,76
Bahçeşehir University	-	1	1	-	1	2	2	7	5,88
Atatürk University	-	1	1	-	1	-	2	5	4,20
Balıkesir University	-	-	-	2	-	3	-	5	4,20
Hacettepe University	-	-	-	-	2	1	1	4	3,36
Marmara University	-	-	-	1	-	2	1	4	3,36
Middle East Technical University	-	-	-	1	2	1	-	4	3,36
Afyon Kocatepe University	1	1	-	-	1	-	-	3	2,52
Ankara University	-	-	1	1	-	1	-	3	2,52
Dokuz Eylül University	-	-	1	-	1	1	-	3	2,52

Method

This section provides information about the research designs adopted in theses on flipped classrooms. It is possible to state that quantitative, qualitative, and mixed research designs are used in theses about flipped classrooms in different fields. It can be said that mostly mixed (44%) and quantitative (41%) designs are preferred in theses. Qualitative designs have a low rate (15%) among research designs (Graph 2).



	2014	2015	2016	2017	2018	2019	2020	Total
Quantitative	1	1	7	8	5	21	5	48
Qualitative	1	1	1	1	5	4	4	17
Mixed Method	0	3	6	5	19	11	8	52

Figure 1. Research methods of the theses and distribution by years

It is evident that the theses were mostly planned according to quantitative research designs in 2016 and 2017, and mostly mixed methods (n=19) were used in 2018. During this period, there was a significant increase in the number of qualitative studies. In 2019, while the interest in mixed research designs decreased, there was a serious acceleration in the number of quantitative research (n=21) compared to previous years. It has been noted that mixed research designs (n=8) were preferred more in 2020. It has been observed that the number of qualitative studies has been at a certain level since 2018.

3.2. Findings of Content Analysis

Keyword Analysis

Since one of the aims of the research is to show the cognitive structure by revealing the background and distribution of the knowledge in the theses related to the FCM, the distribution of the author keywords assigned to the theses is presented in this section. Keyword analyzes represent the general structures of the documents examined and provide quantitative data on their content. It also provides an opportunity to identify popular research trends by giving an idea about the thematic aspects of theses (Chiu & Ho, 2007; Wang, Yu & Ho, 2010).

Figure 2. Keyword cloud

The keyword represented with the highest rate in theses is “FCM” (43%). The FCM is a case in point, as it’s a key issue, so this term is expected to pop up first. This finding shows that the model is the main theme that forms the focus of theses. In some theses, the effect of the FCM on variables such as students’ general academic achievement, attitude, and motivation was emphasized, and in some theses, it was seen that it was preferred as a teaching method in acquiring knowledge and skills related to different learning areas (special area topics in verbal and numerical courses). The keyword “academic success” comes second (14%). It is understood that the effects of the FCM on academic achievement were mostly examined in the theses. Concepts such as English Language Education, Science Education, and Social Studies Education in these theses show that the relationship between the model and academic achievement in different teacher training branches is examined. In this context, it is possible to say that the effect of the FCM on success is prioritized and the academic effectiveness in the education-teaching process is focused on. Another key word that stands out in the theses is “teaching English as a foreign language” (11%). This concept suggests that the FCM is mostly used in language education and teaching, and focuses on English Language and Literature education in general. The keywords “blended learning” (7%) include “attitude” (7%) and “learner autonomy” (5%) keywords. It is possible to state that this concept generally focuses on the learner autonomy of the FCM and students’ attitudes, and emphasizes its role in developing student attitudes and providing students with flexibility in learning.

Subject Areas

In this part of the study, to create a more meaningful thematic model, the distribution of the related theses to the subject areas was revealed by combining the author’s keywords. For this, the subject area classification developed by Uzunboylu and Karagözlü (2017) for FCM research was used. Necessary changes were made in the table in line with the purpose of the research. Thematic distribution of theses related to flipped classrooms completed in Turkey is presented in Graph 3.

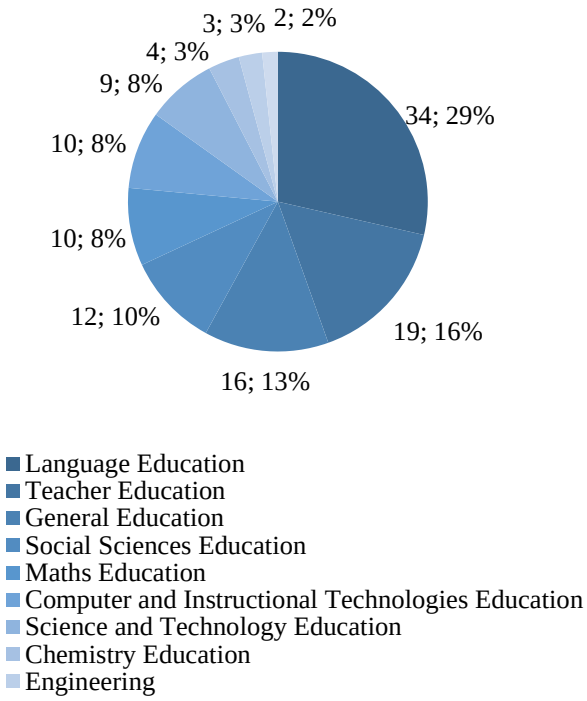


Figure 3. Subject areas

The main subjects that come to the fore in the theses about flipped classes in Turkey are noteworthy. Language Education (n=34; 29%) is the main subject area and closely related subject is Teacher Education (n=19; 16%). Other outstanding research topics: General Education (n=16; 13.44%), Social Sciences Education (n=12; 10.08%), Maths Education (n=10; 8.40%) and Computer Education and Technologies Education (n=10; 8.40%). This table reveals that the FCM is mostly studied in non-math courses. Among these areas, it is clear that the effects of the model especially on English teaching were investigated. It is seen that there are also studies on the advantages of the FCM over the traditional model in teacher education.

Effects of FCM on Teaching Processes

In Turkey, there is important literature consisting of postgraduate theses on the FCM in different disciplines. In these studies, the effects of the model reflected on the teaching processes were emphasized. In general, the FCM has positive effects on educational environments. In line with the studies, FCM has three areas of influence, which are academic success and permanence; motivation, attitude, perception and class participation; and interaction (Table 3).

Table 3. Variables and measurement results in theses

Dimension	Sub-Dimension	Positive	Negative	No difference
Cognition	Academic Success	80	0	6
	Permanance	10	0	0
	Self-Efficacy	2	0	0
Emotion	Attitude	28	0	0
	Motivation	16	1	0
	Class Participation	7	1	0
	Perception	6	0	0
	Anxiety	5	1	0
Interaction	Student-Student	6	0	0
	Student-Teacher	4	0	0
Opinion		31	2	0

In 80 (68.37%) of the 117 theses included in the study, it was found that the course success of the students increased significantly. In a few theses, it was revealed that the academic achievement scores of the students increased, but this was not a significant change. In addition, the permanence of the knowledge acquired with this model was examined in 10 theses. As a result, it was seen that the model not only increased the student achievement score but also provided permanent learning by strengthening the visual and auditory memory. In addition, it was determined that the cognitive load of the students remained lower. Another remarkable finding in the theses is that the model is more useful in non-math areas. In this direction, Özkal (2019) stated that the use of the FCM in non-math lessons (Turkish, English, Social Studies, etc.) is more functional in terms of improving academic achievement than science lessons (Mathematics, Chemistry, Science, etc.). In some theses, the effect of the FCM on self-regulation skills concerning academic achievement was investigated, and it was observed that the model enables students to set goals in the learning process, to determine strategies in line with the goals, and to evaluate learning outcomes.

In the theses, it was examined how the FCM affected student motivation. In this direction, systematic measurement and evaluation were made in 30 (25.64%) theses to determine the course motivation, and as a result, it was observed that the model increased the students' motivation to the course and increased the level of their perceptions and attitudes. Based on the interview and observation data in 14 theses, it was understood that the students were willing to participate actively in the lesson. This situation enabled students to take more responsibility in their learning processes. Thus, it was determined that classroom management would be facilitated by monitoring the processes related to the learning status of the students. In addition, with this model, it was revealed that prejudice, fear of failure, and anxiety, which are seen as obstacles to academic success especially in science courses, are reduced. In some theses, it was concluded that the students experienced low motivation at the beginning of the process because they encountered a new model.

Another question sought to be answered in theses about flipped classrooms was whether this model improves classroom interaction and collaboration. In 10 (8.54%) theses planned in this direction,

it was observed that the model increased student-student and student-teacher interaction. Related to this, Kaya (2018) and Erbil (2019) found that students' social life skills would improve, their social learning sensitivity would increase, and their peer relations would strengthen. Similarly, Urfa (2017) and Akçor (2018) revealed that students' cooperative learning skills would improve. In 30 (25.64%) theses, the opinions of students, pre-service teachers, teachers, parents, and academicians regarding the FCM were sought. It was observed that the views of education stakeholders were generally positive in all theses. Some of the positive opinions that stand out are that it offers space and time flexibility in learning, has an aspect that increases readiness, has fun activities, allows more practice, aims to reinforce the subjects by repeating, and creates an autonomous environment for the student in the learning process.

Problems with the FCM

This part of the study discusses the problems experienced in teaching-learning processes with FCM. Studies have reported some problems with the application of the FCM. It was determined that these problems have three dimensions: (1) students, (2) teachers, and (3) digital infrastructure. It was stated that the most striking problem faced by the students in the theses was their prejudiced approach to the model at the beginning due to the insufficient technological literacy skills. This situation increased the level of anxiety and negatively affected the academic development and speed of progress.

Another problem experienced by students is that the model imposes too much responsibility on them. In a detailed way, the students stated that this model requires a long preparation process, therefore it takes a lot of time, it is necessary to come to class, watching videos every week and working on lecture notes turns into boredom, they are tired of spending too much time in front of the screen because the video duration is long, and there is no family support. In addition, it was stated that students did not have the opportunity to ask questions on subjects that were not understood, and it was emphasized that this situation was highly likely to cause cognitive problems such as incorrect learning and misconceptions.

In the theses, in which the opinions of teachers and academicians about the application of the model were consulted, it was observed that the instructors found the process complex and had difficulties in preparing the students for the new process by making them forget their past habits. In addition, the teachers stated that the students' coming to the lesson without making the necessary preparations before the lesson and their reluctance to enter the system cause significant problems. On the other hand, the participants stated that the practitioners do not have the self-efficacy to use the model effectively and the equipment to plan the learning process. For this reason, it has been suggested that in-service seminars should be organized that can improve the digital competencies of the instructors and help them design the digital learning infrastructure.

It has been understood that most problems in the implementation processes are caused by digital infrastructure. In this regard, teachers mostly mentioned the crowded classrooms, technological inadequacies, and the technical problems arising from them. Students, on the other hand, emphasized

that there are inadequacies related to digital technology such as limited internet access, lack of suitable environment to watch videos at home, and poor image and sound quality of videos.

3.3. Findings of Citation Analysis

Most Frequently Cited Journals

In this section, the frequency of the journals cited in the theses about flipped classrooms was determined, and the journals in the top ten are below.

Table 5. The most frequently cited journals and number of citations in theses

Order	Journal	Index	Number of Citation	Impact Factor (JCR 2019)	Ranking	Quartile	Category
1.	Computers &Education	SSCI	300	5.296	4/263	Q1	Education & Educational Research
2.	Procedia - Social and Behavioral Sciences	-	118	-	-	-	-
3.	Hacettepe University Journal of Education	ESCI	112	-	-	-	Education & Educational Research
4.	ETR&D Educational Technology Research and Development	SSCI	101	2.303	58/263	Q1	Education & Educational Research
5.	Journal of Research in Education and Training	Other	97	-	-	-	-
6.	Learning Environments' Research*	ERIC, Scopus	84	1.219	115/1272	Q1	Social Sciences, Education
7.	American Journal of Pharmaceutical Education	SSCI	83	2.398	11/42	Q2	Education, Scientific Disciplines
8.	Journal of Uludag University Faculty of Education	TR Index	77	-	-	-	-
9.	Computer-Assisted Language Learning	SSCI	75	2.642	41/263	Q1	Education & Educational Research
10.	Computers in Human Behavior	SSCI	69	5.003	4/89	Q1	Psychology, Experimental

NOTE: Data accessed from 30 December 2020 to 29 January 2021 and verified via WoS and Scopus Scimago.

*Source: SCImago Journal and Country Rank (December 2020)

It is seen that the journals are mostly journals in the citation indexes within the scope of Web of Science, and these journals are mostly in the Q1 quartile, and in the Educational and Educational Research categories. In addition, 7 of the journals in the list are from abroad and 3 of them are from Turkey. Of the journals from abroad, 3 are from the UK, 2 from the USA, and 1 from the Netherlands. Accordingly, it is possible to say that scientific journals originating from the United Kingdom and the USA mostly affect the intellectual aspect of the theses about flipped classrooms.

Most Frequently Cited Books

The most frequently cited books were examined to recognize the sources of intellectual influence on authors in theses about flipped classrooms.

Table 7. Most frequently cited books and number of citations in theses

Order	Author, Publication Date, Title, Publisher	Number of Citation
1.	Bergmann, J., ve Sams, A. (2012). *Flip your classroom: Reach every student in every class every day*. International society for technology in education.	97
2.	Yıldırım, A., ve Şimşek, H. (2005). *Sosyal bilimlerde nitel araştırma yöntemleri*. Ankara: Seçkin Yayıncılık.	48
3.	Büyüköztürk, Ş., Çakmak, E. K., Akgün, Ö. E., Karadeniz, Ş., ve Demirel, F. (2013). *Bilimsel araştırma yöntemleri*. Ankara: Pegem Akademi Yayınları.	45
4.	Büyüköztürk, Ş. (2011). *Sosyal bilimler için veri analizi el kitabı*. Ankara: Pegem Akademi Yayınları.	40
5.	Creswell, J. W., ve Creswell, J. D. (2017). *Research design: Qualitative, quantitative, and mixed methods approaches*. Sage publications.	31
6.	Karasar, N. (2007). *Bilimsel araştırma yöntemi: Kavramlar, ilkeler, teknikler*. Ankara: Nodel Yayın Dağıtım.	29
7.	Bonk, C. J., ve Graham, C. R. (2012). *The handbook of blended learning: Global perspectives, local designs*. John Wiley ve Sons.	22
8.	Büyüköztürk, Ş. (2011). *Deneysel desenler: Ön test-son test kontrol grubu, desen ve veri analizi*. Ankara: Pegem Akademi Yayınları.	22
9.	Vygotsky, L. S. (1980). *Mind in society: The development of higher psychological processes*. Harvard University Press.	22
10.	Creswell, J. W. (2002). *Educational research: Planning, conducting, and evaluating quantitative (pp. 146-166)*. Upper Saddle River, NJ: Prentice-Hall.	21

Two of the most frequently cited works in graduate theses are directly related to the FCM, while seven are about scientific research, patterning, and statistical analysis. This data reveals that the sources that shape the intellectual framework of the theses are more about the method and methodological knowledge books than basic information sources. This indicates that the authors of theses on flipped classrooms mainly refer to scientific research method and technique books, not to sources that demonstrate academic excellence in the subject area. In addition, this data is consistent with the results that method books affect the literature more in educational science research (Karadağ et al., 2017; Şeref & Karagöz, 2019).

Most Frequently Cited Authors

In this part of the research, the most frequently cited researchers in the theses are presented. To identify the influential authors in the theses, the names of the authors in the reference lists were entered

into a Microsoft Excel file, and then the most influential authors were listed in terms of the number of citations by frequency analysis (Table 8).

Table 8. Most cited authors and number of citations in theses

Order	Author	Country	Citation	Order	Author	Country	Citation
1.	Bergmann, J.	USA	206	11.	Demiralay, R.	Turkey	86
2.	Sams, A.	USA	196	12.	Verleger, M. A.	USA	82
3.	Büyüköztürk, Ş.	Turkey	131	13.	Fulton, K.	USA	80
4.	Turan, Z.	Turkey	123	14.	Baker, J. W.	USA	79
5.	The Ministry of National Education	Turkey	112	15.	Boyraz, S.	Turkey	73
6.	Creswell, J. W.	USA	108	16.	Aydın, B.	Turkey	68
7.	Strayer, J. F.	USA	104	17.	Platt, G. J.	USA	66
8.	Gençer, B. G.	Turkey	99	18.	Treglia, M.	USA	66
9.	Lage, M. J.	USA	97	19.	Göktaş, Y.	Turkey	62
10.	Bishop, J. L.	USA	87	20.	Talbert, R.	USA	51

Of the first twenty frequently cited researchers, 12 are from the USA and 8 are from Turkey. It has been seen that researchers from Turkey are thesis writers and thesis advisors about the FCM. Accordingly, it is possible to state that the theses put forward were mostly developed based on the scientific studies of researchers from the USA and that the thesis writers in Turkey also had a remarkable effect.

4. DISCUSSION AND CONCLUSİON

The study provides insight into determining the basic ground of the field and understanding the intellectual structure of the field. It also makes a significant contribution to the advancement of the literature by showing potential points of the field for future studies. With this feature, it has a new perspective that can be taken as a reference for all subject areas of educational sciences. Just as a handbook is a hands-on tool that guides users, it has been anticipated that this study approach and the analyzed literature will offer a different approach for researchers to conduct new research.

It has been determined that 68.06% of the theses about flipped classrooms were master's and 31.93% were Ph.D. It has been revealed that Ph.D. theses have an average of 246 pages, and master's theses have 139 pages. This finding is similar to the results of the studies conducted by Şeref and Karagöz (2020) and Kushkowski, Parsons, and Wiese (2003) on postgraduate studies. It was expected that Ph.D. theses would consist of more pages than master's theses because, in Ph.D. theses, researchers examine more comprehensive topics than master's theses and report the topics they have determined in the light of a more detailed research process. It can be mentioned that the need and expectation of

presenting the subject in a multifaceted way by referring to more sources in sections such as conceptual framework, literature, method, conclusion, and discussion also have an impact on this situation.

It has been observed that 74.78% of the theses are published in Turkish, and 25.21% in English. 86.66% of theses in English are master's theses. In other words, 68.01% of master's theses and 89.47% of Ph.D. theses were written in Turkish. This shows that Turkish is dominant as the language of publication in theses. In the literature, there are research findings in the same direction with this result (Al, Soydal & Yalçın, 2010; Çalışkan & Serçe, 2018; Karagöz & Koç Ardıç, 2019; Karagöz. & Şeref, 2021). However, it was observed that English is the dominant language as the language of publication in master's theses. In the examinations, it was understood that these theses were generally carried out in the field of English Education. Theses written in other fields are generally in Turkish. Postgraduate theses contain scientific knowledge that researchers have produced over a long time. The interest of this information by other researchers is possible if the theses are visible and easily accessible. For this, prerequisites such as open access, publication in journals with high impact, and preparation in a language that has international validity in scientific communication besides the national language are necessary. Within this context, writing theses in Turkey in two languages, Turkish and English, may enable these researches to be effective globally as well as nationally, providing the transfer of intellectual accumulation and contributions to science in the theses abroad.

Gazi University stands out as the most productive institution in the literature. It is seen that 5 theses were published in 2018 at this university, and it can be said that this data was effective in the increase in the number of theses in 2018. In addition, it was determined that a total of 36 theses were submitted in 2019. This year, Balıkesir University attracted attention by contributing to 3 theses, and it was concluded that the FCM as a subject area has attracted interest from researchers in various universities in Turkey. In studies examining the FCM from various perspectives, it was found that there were significant developments in the number of studies on flipped classrooms starting from 2013 until 2019 (Uzunboylu & Karagözlü, 2017; Yang, Sun & Liu, 2017; Karabulut-Ilgu, Jaramillo Cherrez et al. Jahren, 2018; Julia et al., 2020; Kushairi & Ahmi, 2021; Birgili, Seggie & Oğuz, 2021). This situation is crucial in terms of showing that the direction of academic interest in Turkey is similar to the global trend.

Quantitative and mixed designs were mostly used in theses. Zainuddin and Halili (2016) reported that 60% of the studies published in 2013-2018 were designed with mixed methods and 40% with quantitative methods. Similarly, Cheng, Hwang, and Lai (2020) revealed that the 100 articles that shape the literature on the model are mostly planned according to mixed and quantitative design. In the studies by Birgili, Seggie, and Oğuz (2021) and Turan and Akdağ-Çimen (2020), it was understood that mixed-patterned studies came to the fore. When the results are compared, it is seen that while the mixed research design maintains its priority, the quantitative design takes second place during the research design. Contrary to these results, Uzunboylu and Karagözlü (2017) found that the qualitative design was preferred more in the research in which they determined the tendencies of the articles about the

FCM. It was determined that quantitative theses in Turkey were generally planned following the experimental design. In these studies, the researchers examined the effect of the FCM on variables such as academic achievement, attitude, and motivation. It was observed that the quantitative dimension of mixed-pattern theses was generally based on the experimental process, while the qualitative aspect was mostly based on interview data with students, parents, and educators. 15% of theses are qualitative. In 2018, an acceleration was observed in the number of qualitative theses. The reason for this increase may be to provide a different window to the flipped classroom literature, which is formed by the quantitative design, with qualitative research. When these theses are taken into consideration, these theses try to determine the opinions and suggestions of the stakeholders of the process regarding the implementation of the model.

Key concepts such as “inverted classroom”, “academic achievement”, “teaching English as a foreign language”, “blended learning”, “attitude” and “learner autonomy” were frequently preferred in theses. In the literature, there are research results in line with this finding. In the studies by Zainuddin & Halili (2016), Yang, Sun & Liu (2017), Bhagat & Spector (2018), Julia et. Al. (2020), Tsai ve Wu, the keywords “inverted classroom”, “active learning”, “blended learning” are used intensively. In the papers by Zainuddin et al. (2019), it has been revealed that the author keywords “flipped classrooms”, “flipped learning”, “self-regulated learning”, “teaching/learning strategies” are used extensively. In the theses in Turkey, it has been observed that variables such as academic achievement, attitude, learner autonomy are chosen as keywords in addition to the concept unity that meets the model. It can be mentioned that similar studies focused on teaching/learning methods, FCM, and concepts related to the model. In addition, based on the keywords, it is possible to state that researchers who submitted a thesis in Turkey focused more on academic achievement and attitude. In the following years, apart from these variables, new research areas may emerge by changing the appearance of keywords with studies examining how the FCM affects different learning areas and what results it gives within the framework of learning styles.

It has been determined that the FCM in Turkey attracts the most attention in studies related to the field of language education. Apart from this, it has been observed that there are studies in various social and science fields such as teacher education, social studies education, and mathematics education. In the field of language education, it is possible to say that it is a remarkable model in English as a foreign language education, as can be understood from the author’s keyword analysis in the theses. There are also studies on the application of the model as a teaching method in various fields in the global literature (Bergmann & Sams, 2012; Davies, Dean & Ball, 2013; Morgan, 2014; Uzunboylu & Karagözlü, 2017; Cheng, Hwang & Lai, 2020). Kushairi and Ahmi (2021) revealed in their study that 38% of the studies in which the model was applied were in the field of social sciences. In the studies by Birgili, Seggie, and Oğuz (2021), there are also findings in the direction of the relevant literature. According to Özkal (2019), the main reason for this situation is that the application of the model in science lessons has some disadvantages (science lessons are mostly based on practice, and they require

immediate feedback, etc.). These problems can be overcome with applications and content suitable for student-teacher interaction or by planning individual activities outside of school by focusing on issues that require interaction at school (Al-Zahrani, 2015; Danker, 2015; Fautch, 2015).

In the theses, the effects of the FCM on academic achievement, attitude, and motivation variables were mostly examined. In addition, the direction of the students' views on the application of the model was questioned. As a result, it has been observed that the model increased the academic success of the students, improved their attitudes and motivations, and created positive student opinions. In the studies by Zainuddin and Halili (2016), it has been found that the literature on the model generally focused on similar variables and successful results were obtained. Ma, Wu, and Ko (2019) also found that students studying in an inverted classroom had significantly better views than students in traditional classrooms. Birgili, Seggie, and Oğuz (2021) revealed that the model had positive effects on students' cognitive and affective skills. Based on the findings in this study and the literature, it is possible to state that there are potential research areas to determine the relationship between variables such as high-level thinking skills, learning styles, and the FCM. Especially in recent years, when individual differences are frequently mentioned in teaching, revealing the effect of the model in this direction in the context of different fields of science may open a new research window to the field.

As a result of the citation analysis, it has been noted that there was an average of 132 citations in master's theses and 240 citations in Ph.D. theses. Within this respect, the result of the research is in the same direction as the relevant literature (Kushkowski et al., 2003; Şeref & Karagöz 2020). It can be stated that the thought that Ph.D. theses should be prepared more comprehensively academically than master's thesis was effective on this result. On the other hand, while postgraduate education is considered as the first step taken by the researcher at the point of acquiring a scientific perspective, the Ph.D. is an important academic step in which they gain a scientific identity and try to present an original perspective to the field. For this reason, more sources are accessed during the writing process of the Ph.D. thesis, these sources are carefully examined and the sources to be cited in the theses are determined meticulously.

The most frequently cited journal in theses produced in the field is Computers & Education. The WoS impact factor of the journal, which ranks fourth in the category of Web of Science education and training research, was calculated as 5.296 (JCR, 2019). So, the journal is among the most influential publications in the field. At the same time, it was revealed that the most frequently cited journals were mainly from abroad. It is seen that five of these magazines are in the Q1 quartile. From this point of view, it is possible to state that the authors refer to journals with high global impact and visibility among the sources they refer to and that they are selective in accessing the sources during the thesis writing process. Similarly, it can be stated that studies with high scientific quality are used in the formation of the intellectual ground of the theses, and relations are established with prominent publications and researches of the universal literature. This situation can be interpreted as the theses are of a nature that

will provide important outputs for future research because the quality of the citations in the bibliography of scientific studies gives important clues about the contribution of the researches to the relevant field.

Publications and researchers from the USA have a strong influence on the shaping of the flipped classroom literature in Turkey. In particular, the publications produced by Bergmann played a leading role in establishing the basis of the international flipped classroom literature and its application in various disciplines. In this respect, citing Bergmann's publications in future research on flipped classrooms is important in terms of providing qualifications to the studies, as well as connecting them with the global information network through citations.

RECOMMENDATIONS

There is a fundamental limitation of the study, which examines the descriptive features, research patterns, thematic distributions, and citation characteristics of postgraduate theses on the FCM in Turkey. In particular, the fact that the data set of the study only covers the academic theses in the YÖK Thesis Center is a limitation in terms of the generalizability of the research findings and results. On the other hand, the data of this study reflect the production of knowledge specific to Turkey, and at this point, the fact that the data has a national dimension may create a limitation. However, a combination of articles about flipped classes from data sources such as the Social Sciences Citation Index-Web of Science & Scopus can generate new questions and results.

Author (s) Contribution Rate

The contributions of the researchers in this study are equal.

Conflicts of Interest

There is no any conflict of interest.

Ethical Approval

Ethical permission (11.03.2021-01-19) was obtained from Tokat Gaziosmanpaşa University for this research.

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GENİŞLETİLMİŞ TÜRKÇE ÖZET

SINIFLARI YENİDEN DÜŞÜNMEK: TÜRKİYE'DE TERSYÜZ EĞİTİM MODELİ ÜZERİNE LİSANSÜSTÜ TEZLERİN KAPSAMLI ANALİZİ

GİRİŞ

Geleneksel eğitim-öğretim yaklaşımlarına bağlı olarak ortaya çıkan sosyal, ekonomik ve psikolojik aksaklıklar günümüzde eğitim süreçlerindeki metodolojik uygulamaları temelden değiştirmiştir. Bun durumdan kaynaklı olarak eğitim sistemindeki ihtiyaçlar ve yetersizlikler giderek daha belirgin hale gelmektedir. Bu durum, öğrenme ve öğretme sürecinin daha nitelikli hale getirilmesi için bir yenilenmeyi ve değişimi gerekli kılmaktadır. Bu bağlamda, eğitim uygulamalarının farklı ve esnek öğrenme-öğretme çözümleriyle kurgulanması dikkat çekmektedir. Bu açıdan bakıldığında bilginin öğrenen merkezli etkinliklere dayalı olarak öğrenen tarafından yapılandırıldığı, her öğrenenin kendi öğrenme hızında ilerlemesine olanak tanıyan ve teknolojik donanımlarla desteklenen Ters Yüz Edilmiş Sınıf Modeli, öğrenme ortamı açısından kritik bir öneme sahiptir (Chen, Wu & Marek, 2017; Critz & Knight, 2013; Foldnes, 2016; Rotellar & Cain 2016; Sohrabi & Iraj, 2016; Yılmaz, 2017).

Lisansüstü tezler, bir disipline özgün katkılar yapan ve çalışılan konu hakkında kanıta dayalı sistematik bilgi sağlayan kaynaklardır. Bilimsel alanların gelişimine katkı sağlayan ve toplumsal faydayı artıran tezler, hem alanyazının anlaşılmasına yardımcı olmaları hem de karar süreçlerine temel oluşturmaları nedeniyle önemlidir. Ayrıca, belirli bir alandaki çalışmalar için bir düşünce penceresi oluşturmada, yöntemlerdeki eğilimleri, temaları ve alandaki boşlukları göstermenin yanı sıra bilim politikası planlamada da güçlü bir araçtır (Davies, Howell ve Petrie, 2010). Tezlerin bölümleri (giriş, yöntem, bulgular, tartışma, sonuç) ve kaynakçaları incelenerek alanın entelektüel yapısı ve alandaki bilimsel iletişim hakkında bulgular ve çıkarımlar yapılabilir. Alandaki bilim insanlarının bilgiyi kullanma biçimleri, bilgi alışverişi konusundaki duyarlılıkları ve farkındalık düzeyleri belirlenebilir. Bu doğrultuda lisansüstü tezlerin temel akademik bilgi çıktıları arasında yer aldığı belirtilebilir. Bu bağlamda, Türkiye'de TYES üzerine yapılan lisansüstü tezler güncel ve değerli bir araştırma konusu olarak dikkat çekmektedir.

Bu çalışma, Türkiye'deki yükseköğretim kurumlarında (devlet/özel) TYES üzerine yapılan lisansüstü tezlerin tanımlayıcı, kavramsal, metodolojik boyutlarını ve bibliyometrik atıflarını incelemektedir. Bu tezler öncelikle tür, sayfa sayısı, yayın dili, yıllık tez üretimi, ilgili kurumlar ve araştırma tasarımı açısından incelenmiştir. İkinci aşamada içerik analizi yapılarak tezlerin kavramsal yönleri, konu alanları ve modelin eğitim ortamına etkileri belirlenmiştir. Üçüncü aşamada ise bibliyometrik atıf analizi ışığında tezlerin kaynakçalarında en çok atıf alan dergi, makale, kitap ve araştırmacılar belirlenmiştir. Çalışma bu özelliği ile akademik alanlardaki araştırmacıların görece farkında oldukları ancak kanıta dayalı nesnel bilgilerle açıklayamadıkları olguları bilimsel olarak tespit

etmelerine olanak sağlıyor. Böylece alandaki araştırma yönelimlerini ve bilişsel kapsamını tanımlayabilen araştırmacıların yeni ve özgün bilgi üretme sürecine yönelmeleri mümkün olmaktadır.

Uluslararası alanyazındaki pek çok akademik çalışma TYES'nin ana hatlarıyla incelemektedir (Tucker, 2012; Jinlei, Ying ve Baohui, 2012; Milman, 2012; Bishop ve Verleger, 2013; Enfield, 2013; Herreidve Schiller, 2013; Abeysekera vd. Dawson, 2015; Blau ve Shamir-Inbal, 2017; Sergis, Sampson ve Pelliccione, 2018). Literatürde ayrıca içerik analizi, meta-analiz ve sistematik derleme gibi yöntemler kullanılarak FCM'yi inceleyen çalışmalar da bulunmaktadır (Zainuddin ve Halili, 2016; Uzunboylu ve Karagözlü, 2017; Chen vd., 2018; Gillette vd., 2018; Cheng, Ritzhaupt ve Antonenko, 2019; Turan ve Akdağ-Çimen, 2020). Örneğin, içerik analizi yöntemini kullanan Zainuddin ve Halili (2016), 2013-2015 yılları arasında uluslararası dergilerde FCM ile ilgili 20 makaleyi araştırma deseni, konu eğilimleri ve anahtar kelimeler açısından analiz etmiştir. Sonuçlar, TYES'nin farklı alanlarda uygulandığını ve bazı teknolojik araçların çevrimiçi platformlar olarak kullanıldığını ortaya koymuştur.

YÖNTEM

Çalışmacın amacı doğrultusunda, bu çalışmada 2014-2020 yılları arasında ters yüz edilmiş sınıf üzerine yapılan tezlerin metodolojik eğilimlerini belirlemek için nitel bir yaklaşım olan içerik analizinden yararlanılmıştır. İçerik analizi, olguların tanımlanması ve değerlendirilmesi sürecinde sistematik ve nesnel bir yaklaşım sunar. Dokümanları analiz etme yöntemi olarak da bilinen içerik analizinde (Elo ve Kyngäs, 2008), incelenecek materyaller mercek altına alınır ve ilgili alanyazının gerçeklerini ve özelliklerini nesnel ve doğrulanabilir bir şekilde sistematik olarak belirlemek (Colás, 1998) mümkün olabilir.

VERİ TOPLAMA

Araştırmada kullanılan Veri Toplama Formu (VTF) içerik analizi ve atıf analizi olmak üzere iki ana bölümden oluşmaktadır. İçerik analizi bölümünde tezlerin türü, sayfa sayısı, yayın dili ve yılı, ilgili kurum, araştırma yöntemi, anahtar kelime, konu alanı, modelin etkileri ve dezavantajlarına ilişkin bilgiler yer almaktadır. Atıf analizi bölümünde ise atıf sayıları ve ortalamaları, atıf yapılan dergi, makale, kitap ve yazarlara ilişkin bilgiler yer almaktadır. Atıf özelliklerinin diğer bazı boyutları araştırmacılar tarafından formüle edilmiştir. Bu boyutların incelenmesindeki amaç, alandaki bilimsel iletişim örüntüsünü açıklamak ve tezlerin entelektüel olarak etkilendiği bilimsel dergi, kitap ve araştırmaları tespit ederek alanın bilişsel kaynaklarını belirlemektir.

GEÇERLİLİK VE GÜVENİLİRLİK ÖLÇÜMLERİ

Araştırma geçerliliği, araştırmanın bulgularından yapılan çıkarımların doğruluğunu veya gerçekliğini ifade eder (Christensen, Johnson ve Turner, 2015). Bilimsel araştırmanın ölçülmek istenen kavramı karşılama derecesi olarak da tanımlanmaktadır (Neuendorf, 2002). Bu çalışmada araştırmacılar, geçerliliğe yönelik tehditleri kontrol etmek için görünüş geçerliliği, kapsam geçerliliği ve içerik geçerliliği adımlarını izlemiştir. Görünüş geçerliliği veri toplama aracının görünüşü ile ilgilidir (Neuendorf, 2002). Bu doğrultuda araştırmacılar tarafından alanyazın incelenerek geliştirilen form,

deneme çalışmalarının ardından bir dil uzmanı ile bir ölçme ve değerlendirme uzmanının görüşüne sunulmuştur.

TARTIŞMA VE SONUÇ

Çalışma, alanın temel zemininin belirlenmesine ve alanın düşünsel yapısının anlaşılmasına ışık tutmaktadır. Ayrıca gelecek çalışmalar için alanın potansiyel noktalarını göstererek alanyazının ilerlemesine önemli bir katkı sağlamaktadır. Bu özelliği ile eğitim bilimlerinin tüm konu alanları için referans alınabilecek yeni bir bakış açısına sahiptir. Nasıl ki bir el kitabı kullanıcılara yol gösteren uygulamalı bir araç ise, bu çalışma yaklaşımının ve incelenen alanyazının araştırmacılara yeni araştırmalar yapmaları için farklı bir yaklaşım sunacağı öngörülmüştür.

Ters yüz sınıflarla ilgili tezlerin %68,06'sının yüksek lisans, %31,93'ünün ise doktora tezi olduğu tespit edilmiştir. Doktora tezlerinin ortalama 246 sayfa, yüksek lisans tezlerinin ise 139 sayfa olduğu ortaya çıkmıştır. Bu bulgu, Şeref ve Karagöz (2020) ile Kushkowski, Parsons ve Wiese (2003) tarafından lisansüstü çalışmalar üzerine yapılan araştırmaların sonuçlarıyla benzerlik göstermektedir. Doktora tezlerinin yüksek lisans tezlerine göre daha fazla sayfadan oluşması beklenmiştir çünkü doktora tezlerinde araştırmacılar yüksek lisans tezlerine göre daha kapsamlı konuları incelemekte ve belirledikleri konuları daha detaylı bir araştırma süreci ışığında raporlamaktadır. Kavramsal çerçeve, alanyazın, yöntem, sonuç, tartışma gibi bölümlerde daha fazla kaynağa atıfta bulunarak konuyu çok yönlü bir şekilde sunma ihtiyacı ve beklentisinin de bu durum üzerinde etkili olduğundan bahsedilebilir.

Tezlerin %74,78'inin Türkçe, %25,21'inin ise İngilizce olarak yayımlandığı görülmüştür. İngilizce tezlerin %86,66'sı yüksek lisans tezleridir. Başka bir deyişle, yüksek lisans tezlerinin %68,01'i, doktora tezlerinin ise %89,47'si Türkçe yazılmıştır. Bu da tezlerde yayın dili olarak Türkçenin baskın olduğunu göstermektedir. Literatürde de bu sonuçla aynı yönde araştırma bulguları mevcuttur (Al, Soydal & Yalçın, 2010; Çalışkan & Serçe, 2018; Karagöz & Koç Ardıç, 2019). Ancak yüksek lisans tezlerinde yayın dili olarak İngilizcenin baskın dil olduğu görülmüştür. Yapılan incelemelerde bu tezlerin genellikle İngilizce Eğitimi alanında gerçekleştirildiği anlaşılmıştır.

Gazi Üniversitesi alanyazında en üretken kurum olarak öne çıkmaktadır. Bu üniversitede 2018 yılında 5 tezin yayımlandığı görülüyor ve bu verinin 2018 yılındaki tez sayısının artışında etkili olduğu söylenebilir. Ayrıca 2019 yılında toplam 36 tezin teslim edildiği belirlendi. Bu yıl Balıkesir Üniversitesi 3 teze katkı sağlayarak dikkat çekmiş ve bir konu alanı olarak TYES'nin Türkiye'deki çeşitli üniversitelerdeki araştırmacılar tarafından ilgi gördüğü sonucuna varılmıştır. TYES'yi çeşitli açılardan inceleyen çalışmalarda, 2013 yılından başlayarak 2019 yılına kadar ters yüz edilmiş sınıflarla ilgili çalışmaların sayısında önemli gelişmeler olduğu tespit edilmiştir (Uzunboylu & Karagözlü, 2017; Yang, Sun & Liu, 2017; Karabulut-Ilgu, Jaramillo Cherrez et al. Jahren, 2018; Julia et al., 2020; Kushairi & Ahmi, 2021; Birgili, Seggie & Oğuz, 2021). Bu durum, Türkiye'deki akademik ilginin yönünün küresel eğilimle benzerlik gösterdiğini ortaya koyması açısından önemlidir.

Tezlerde en çok nicel ve karma desenler kullanılmıştır. Zainuddin ve Halili (2016) 2013-2018 yıllarında yayımlanan çalışmaların %60'ının karma yöntemlerle, %40'ının ise nicel yöntemlerle tasarlandığını bildirmiştir. Benzer şekilde Cheng, Hwang ve Lai (2020) de modele ilişkin alanyazına yön veren 100 makalenin çoğunlukla karma ve nicel tasarıma göre planlandığını ortaya koymuştur.

"Ters yüz edilmiş sınıf", "akademik başarı", "yabancı dil olarak İngilizce öğretimi", "harmanlanmış öğrenme", "tutum" ve "öğrenen özerkliği" gibi anahtar kavramlar tezlerde sıklıkla tercih edilmiştir. Alanyazında da bu bulguyu destekler nitelikte araştırma sonuçları mevcuttur. Zainuddin & Halili (2016), Yang, Sun & Liu (2017), Bhagat & Spector (2018), Julia et. Al. (2020), Tsai ve Wu tarafından yapılan çalışmalarda "ters çevrilmiş sınıf", "aktif öğrenme", "harmanlanmış öğrenme" anahtar kelimeleri yoğun olarak kullanılmıştır. Zainuddin ve diğerlerinin (2019) makalelerinde ise "ters yüz edilmiş sınıflar", "ters yüz edilmiş öğrenme", "öz-düzenlemeli öğrenme", "öğretme/öğrenme stratejileri" anahtar kelimelerinin yoğun olarak kullanıldığı ortaya çıkmıştır. Türkiye'deki tezlerde ise modeli karşılayan kavram bütünlüğünün yanı sıra akademik başarı, tutum, öğrenen özerkliği gibi değişkenlerin de anahtar kelime olarak seçildiği görülmüştür.

Yazar(lar) Katkı Oranı

Bu çalışmada araştırmacıların katkıları eşittir.

Çıkar Çatışmaları

Herhangi bir çıkar çatışması yoktur.

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