İÇİNDEKİLER / CONTENTS

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Address/Adres

Kocatepe Mah. Hatay Sok. 6/12 Kızılay Çankaya/Ankara/Türkiye

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Contact/İletişim

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CONTENTS / İÇİNDEKİLER	Pages

Baş Editörden

“Eğitim Programları ve Öğretim” alanının öncü dergisi olan “IJOCIS”in 15. Cilt 1. Sayısında eğitim-öğretim ve öğretim programlarıyla ilgili dikkat çekici çalışmalar yer almaktadır. Sayımıza katkıda bulunan tüm yazarlarımızı çalışmalarından dolayı tebrik ediyor ve başarılarının devamını diliyorum. Ayrıca değerlendirme tekliflerimizi geri çevirmeyip makaleleri titizlikle inceleyen alanlarında uzman akademisyenlerimize, çalışma ekibimize ve editörler kuruluna dergimizin yayımlanması için yapmış oldukları özverili katkılarından dolayı çok teşekkür ederim.

2025 yılının ilk sayısını yayımladığımız dergimizde çeşitli konu alanlarında ve çözüm getiren bakış açısıyla değerlendirme yapılan birbirinden değerli makaleler yer almaktadır: Program Liderliği ile ilgili bir Bibliyometrik Analiz, R Tabanlı Analiz ile Program ve Öğrenci Özerkliği, Öğretmenlerin Bireysel Yaratıcılıkları ile Yapılandırmacı Yaklaşımı Uygulamaya Yönelik Öz Yeterlik İnançları konularında çalışmalara yer verilmiştir.

Dergimizin diğer uluslararası veri tabanlarında da dizinlenmesi için titizlik, ciddiyet ve tutarlılıkla çalışmaya devam ediyor, Eğitim Programları ve Öğretim alanında çalışan ülkemizdeki ve dünyadaki tüm eğitimcileri dergimize bilimsel niteliği yüksek ve özgün çalışmalar göndermeleri için çağrıda bulunuyoruz.

Esenlik dileklerimle…

Doç. Dr. Aslıhan Selcen BİNGÖL

From the Editor-in-Chief

Volume 15, Issue 1 of "IJOCIS", the leading journal in the field of "Curriculum and Instruction", contains remarkable studies on education and curriculum and instruction. I would like to congratulate all the authors who contributed to our issue for their work and wish them continued success. I would also like to thank our expert academicians, editorial team, and the editorial board for their devoted contributions to the publication of our journal.

In the first issue of 2025 of the "International Journal of Educational Curriculum and Instructional Studies", valuable manuscripts cover a wide range of topics and evaluate solution-oriented perspectives. Studies on: A Bibliometric Analysis on Curriculum Leadership, An R-Based Analysis on Curriculum Autonomy and Student Autonomy and Teachers' Individual Creativity and Self-Efficacy Beliefs for Applying Constructivist Approach are included.

We continue to work with diligence, seriousness, and consistency without expecting anything in return, aiming for IJOCIS to be indexed in other reputable and global citation databases. As always, we invite all educators working in the field of Curriculum and Instruction to submit original and high-quality studies that align with the focus of the journal.

With my best regards.

Assoc. Prof. Dr. Aslıhan Selcen BİNGÖL

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Research on Curriculum Leadership: A Bibliometric Analysis

İlkay Doğan Taş, Kırıkkale University, ilkaydogantasku.edu.tr, 0000-0002-1418-1688

Serap Nur Duman, Kırıkkale University, serapnurdumanku.edu.tr, 0000-0002-4535-2144

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Abstract

This study conducts a bibliometric analysis to examine works on curriculum leadership, as indexed in the Web of Science database. Utilizing VOSviewer software for the analysis, the study encompasses 124 articles/chapters accessible in this database. The findings indicate a predominant publication of curriculum leadership studies in journals pertaining to Education and Educational Research. Notably, there has been a surge in studies in this field since 2010, with the peak year being 2017, which saw 16 publications. The United States emerges as the leading country in curriculum leadership research, contributing 34 studies. In 2023, research in this domain garnered the highest number of citations, totaling 139, with "curriculum leadership" being the most prevalent keyword, appearing in 38 studies. Rose M. Ylimaki stands out as the most prolific author with nine publications, while M. Fullan and A. Harris are the most cited authors, receiving 46 and 40 joint citations, respectively. The journal 'Educational Management Administration & Leadership' is noteworthy for receiving the most citations in this field, totaling 113 across three articles. The book "Curriculum Leadership by Middle Leaders: Theory, Design, and Practice" is distinguished as the most published work in this area, with five publications. Furthermore, the article "Faculty Development for Educational Leadership and Scholarship" is significant in the realm of curriculum leadership studies, having accrued 98 citations. Research results show that the view of curriculum leadership has changed over the years, and its focus has begun to shift from educational management to curriculum development. It is also an important finding that the issue is limited to certain geographical regions. In order to progress in this field, it is essential to examine a wide range of viewpoints, expand research beyond existing geographical boundaries, and take into account the effects of digital transformation and fresh approaches to instruction.

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Introduction

Curriculum leadership is a multifaceted and dynamic concept that encompasses various elements of educational practice and theory. It integrates leadership qualities, instructional strategies, curriculum development, and educational outcomes, making it a pivotal area of focus for educators and policymakers alike. Curriculum leadership also includes subjects like curriculum, leadership, teaching leadership, guidance, administration, educational and instructional curriculum, course scheduling, formal curriculum, implemented curriculum, neglected curriculum, implicit curriculum, extracurricular activities, objectives, goals, student outcomes, standards, content, teaching methodologies, learning processes, monitoring, evaluation, enrichment, accountability, professional development, personal growth, class structure, unit planning, skill development, value education, and the integration of educational technology. Given its complexity, it can be argued that the literature on curriculum leadership is vast and often fragmented, with numerous interpretations and applications in various educational contexts. To make an effective sense of curriculum leadership, it is essential to identify its most salient aspects. This research aims to critically analyze and synthesize key aspects of curriculum leadership, drawing on a wide range of sources to provide stakeholders with a comprehensive understanding.

Curriculum leadership is not a monolithic concept but rather a tapestry woven from numerous strands of educational thought and practice. Even when considering the most evident concepts of curriculum and leadership, there are more than 100 interpretations of curricula and over 200 interpretations of leadership in the literature, as reported by Henderson (2010). The process of defining curriculum leadership can be likened to the old Indian story 'The Blind Men and the Elephant', where each perspective shows only a part of the whole. In this story, six blind men touch different parts of an elephant, and each provides a distinct description (Goldstein, 2010). Similarly, defining curriculum leadership can be viewed as an endeavor that varies depending on the aspect being focused on. If the focus is on curriculum standards or student outcomes, then curriculum leadership can be defined as "guiding all educational stakeholders in establishing national standards and clear, understandable student outcomes based on these standards"; if the focus is on updating or changing curricula, it could be defined as "planning and designing the continuous development of the curriculum" (Sorenson et al., 2011, pp. 30-31). From respective perspectives, definitions of curriculum leadership can also be considered accurate, like each man's description of the elephant.

Despite the challenges in formulating a universally accepted definition, owing to the multitude of related concepts, it is possible to define curriculum leadership based on comprehensive approaches. According to Harris et al. (2020), curriculum leadership requires addressing concepts closely related to teaching, such as leadership, curriculum, content, implementation, progress, assessment, evaluation, collaboration, and pedagogy. For instance, Wiles (2008) entirely grounds his definition of curriculum leadership in leadership qualities, describing it as "a facilitative process in which the leader collaborates with others to establish a common goal, build collaborative teams, structure an operational mode, and coordinate a variety of complex activities". Sorenson et al. (2011, p. 31) conceptualize it as "an effort to integrate curriculum, instruction, assessment, and evaluation to enhance learning and understanding". Glatthorn (1997a) anchors their definition in two primary functions of curriculum leadership at both the school and classroom levels: the development of a quality

curriculum vision at the school level and the planning for the implementation of the curriculum in the classroom. Finally, Henderson (2010, pp. 220) adopts a broader perspective, defining curriculum leadership as "the practical explanation, justification, guidance, and evidence of disciplined theoretical views" related to innovative curriculum studies.

Besides defining curriculum leadership, there is a variance in perspectives regarding who is considered a curriculum leader. According to Henderson (2010), leadership is a distributed phenomenon. The concept of curriculum leadership has evolved significantly over time. Initially dominated by top-down approaches where central figures dictated curriculum changes, the field has gradually embraced more distributed leadership models. As noted by Spillane (2004) and Fullan (2007), this shift towards distributed leadership recognizes the critical roles of teachers, administrators, and other stakeholders in the decision-making process. This evolution underscores the need for a collaborative approach to curriculum leadership, where diverse contributors work together to achieve common educational goals. In this context, curriculum leadership is seen as a shared responsibility, involving not only administrative leaders but also teacher leaders, student leaders, and community stakeholders. This inclusive approach reflects a broader understanding of leadership as a collective endeavor rather than a function confined to specific roles (Glatthorn, 1997b; Wiles, 2008). However, the primary focus is on administrators and teachers. Administrators play a crucial role in shaping the overall culture and direction of a school. As curriculum leaders, their responsibilities include creating and maintaining a school vision, leveraging the expertise of lead teachers, fostering collaboration, and managing resources such as personnel, space, and materials (Mattar, 2012; Singh, 2017; Stark et al., 2002). Teachers, on the other hand, play crucial roles in implementing curriculum changes, mentoring peers, and integrating effective teaching strategies (Singh, 2017).

Despite the collaborative nature of curriculum leadership, educators and administrators face numerous challenges. These challenges include managing multiple and conflicting goals, determining suitable strategies for school development, and providing time and resources to implement these strategies (Marlow & Minehira, 1996). Some of the most significant problems that need to be solved are separating administrative and instructional roles, getting teachers to work together (Lattuca & Stark, 2009), resolving teacher conflicts (Bryman, 2007; Jacobs, 1997), making sure that everyone can work together and communicate effectively (Wiles, 2008), making sure that teachers keep learning, and figuring out the best ways to assess and evaluate whether the curriculum is achieving its goals (Singh, 2017; Wiles, 2008). Effective communication and collaboration with all stakeholders are essential for successful curriculum leadership. This requires ongoing professional development to equip leaders with the skills to navigate these challenges (Brown et al., 2000; Neumerski, 2012). Ensuring continuous improvement in curriculum leadership practices involves not only addressing immediate issues but also fostering a culture of learning and growth within educational institutions (Nguyen, 2012; Vieira da Motta & Bolan, 2008).

Considering what has been said in the literature about the definition, roles, and challenges of curriculum leadership, it can be said that curriculum leadership has various definitions, and leadership roles are shared between administrators and teachers. Many challenges are encountered in the leadership process. However, no matter who takes on the role of curriculum leadership, there are specific subjects that need to be addressed. The definitions of curriculum

leadership indicate that the concept generally involves defining the curriculum for the school, establishing collaboration among all members of the school, providing a way of working that stakeholders can follow for the implementation of the curriculum, and coordinating activities to ensure that the desired curriculum is achieved. Curriculum leadership includes guiding educational stakeholders to establish standards and clear outcomes and planning continuous curriculum development. It also encompasses effective leadership qualities, involving collaboration to set common goals, build teams, and manage complex activities. The role of curriculum leaders has evolved from top-down approaches to more distributed models, recognizing the essential contributions of teachers, administrators, and other stakeholders. Effective curriculum leadership requires addressing numerous challenges, such as balancing administrative and instructional roles, fostering teacher collaboration, and ensuring effective communication. Continuous professional development and a learning culture are crucial for navigating these challenges and achieving successful curriculum leadership.

To address the nature of the literature on curriculum leadership and provide a comprehensive overview of its development, this study employs a bibliometric analysis approach. This approach allows us to quantify and map the influence of various definitions, roles, and models of curriculum leadership by analyzing publication and citation patterns (Zupic & Čater, 2015). Bibliometric analysis helps to identify the intellectual landscape of curriculum leadership, revealing trends and emerging areas of research. Bibliometric analysis also highlights the trajectory of curriculum leadership research over time, offering insights into how the field has evolved and where it is heading. By analyzing citation and publication data, it can be determined which concepts and definitions of curriculum leadership have had the most influence, which authors have been leading contributors, and how different studies have linked together to shape the current understanding of the field (van Raan, 2003). This comprehensive overview provides valuable data for guiding future research and practice (Börner et al., 2003) about curriculum leadership.

Curriculum leadership is a global phenomenon with diverse contexts, not limited to a single national or cultural context. According to Acat (2016), although curriculum leadership is a new concept for Türkiye, it is often brought up in the search for quality in education. Eryılmaz Ballı and Dönmez Yapucuoğlu's (2022) study on curriculum leadership studies in Türkiye shows that the number of studies on this subject is limited. The results of this study and literature review indicate a significant increase in studies after 2020, primarily related to the competencies of school principals and curriculum leadership roles. Examining the literature reveals the publication of four master's theses and ten articles on curriculum leadership in Türkiye after 2020. While a significant part of these studies are on the curriculum leadership of school principals, some of them are on the curriculum leadership of teachers and curriculum leadership in general (Akbaş et al., 2021; Aslan et al., 2018; Bayirli & Balcı, 2021; Bayirli, 2021; Bayirli, 2022; Bolat & Baş, 2023; Çelik et al., 2024; Demiral, 2009; Hamsi İmrol, 2022; Kundoğdu, 2022; Kundoğdu & Akbaş, 2022; Aydın Sesli, 2023; Turhan & Yaraş, 2014; Yaraş, 2013; Yeşilyurt, 2019). The scarcity of studies on curriculum leadership and the surge in recent years indicate a significant trend in this field in Türkiye, underscoring the need for further research. Understanding different regions' interpretations and implementations of curriculum leadership can provide valuable insights into its broader applications and impacts. Regional differences in curriculum leadership highlight the importance of context in shaping educational practices.

Researchers can identify best practices and potential areas for innovation by examining the approaches to curriculum leadership in various countries. This global perspective enriches the understanding of curriculum leadership and its role in fostering educational excellence across diverse settings. In Türkiye, conducting qualified studies to determine the meaning of prominent regional differences regarding the dimensions of curriculum leadership will contribute to the literature. This study aims to provide comprehensive data mining for researchers interested in studying or reading about curriculum leadership. In this context, the research questions of the study are as follows:

1. What is the distribution of studies by subject area on curriculum leadership?
2. What is the distribution of studies over the years?
3. What is the distribution of studies by country?
4. What is the distribution of citations to studies?
5. What are the most commonly used keywords in studies?
6. What is the citation distribution of the authors?
7. What is the co-citation analysis of studies?
8. What are the journals that publish the most articles/chapters related to studies and receive citations?
9. What are the most cited studies?

Method

This study used the bibliometric method to analyze articles on curriculum leadership. With the help of programs, bibliometric analysis tries to show how well different factors (like author, study type, journal, country, and keyword) perform on a certain research topic and to show and map the scientific connection between these factors (Heersmink et al., 2011; Şimşir, 2022). However, it is important to note that bibliometric analysis differs from meta-analysis and systematic literature reviews. Meta-analysis studies aim to reach general findings by performing statistical operations on scientific studies on the determined research topic (Ahn & Kang, 2018; Akgöz et al., 2004). The goal of a systematic literature review is to conduct a thorough and qualitative assessment of the scientific studies related to the chosen research topic (Jesson et al., 2011). In both literature review methods, researchers must access, evaluate, or examine scientific studies one by one. For this reason, the number of studies accessed may be limited, or the evaluations may reflect the subjectivity of the researcher (Şimşir, 2022). In contrast, bibliometric analysis accesses scientific studies collectively through databases, allowing for the straightforward examination of data from a large number of scientific publications in a short amount of time (Block & Fisch, 2020). On the other hand, the research's repeatability is high because the bibliometric analysis process is transparent and objective (Zupic & Čater, 2015). For this reason, bibliometric analysis was preferred in this research.

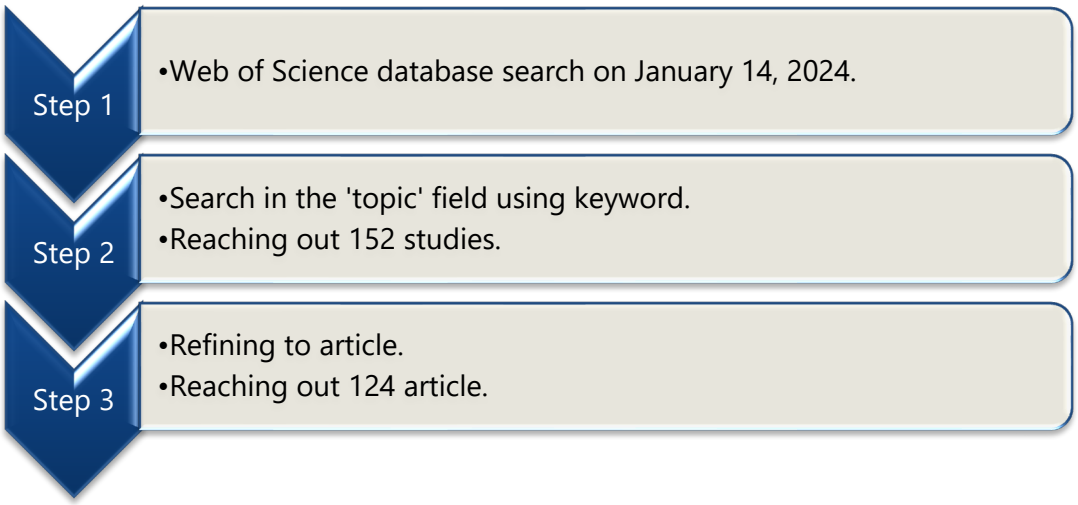
Document Selection

Web of Science (WoS) database was used to identify the documents included in the research. The WoS database provides search results for numerous scientific studies in different types of research. At the same time, it provides the opportunity to save the scan results in a single file, making analysis for scientific research easier. The keyword 'curriculum leadership' was scanned in the topic tab on the WoS document scanning screen, and 152 search results

were obtained. In order to include only articles among these results, the results were filtered with the 'article' tab, and 124 articles on the results screen were included in the study. The processes performed in document selection are shown in Figure 1.

Figure 1

Process of Accessing Studies



Data Analysis

The two basic categories of data analysis in bibliometric analysis studies are performance analysis and science mapping. Performance analysis assesses the publication and citation performance of scientific elements like authors, institutions, countries, and journals in scientific studies, while scientific field mapping aims to uncover the connections and interactions among these elements (Donthu et al., 2021). Therefore, conducting performance analysis yields information about the authors who have published the most studies, the journals that publish the most studies, or the countries that publish the most studies. Scientific field mapping examines interaction through co-author analysis, common word analysis, or co-citation analysis. This study employed both performance analysis and scientific field mapping frameworks to conduct a comprehensive bibliometric analysis of articles on curriculum leadership. Performance analysis yielded findings about prominent journals, authors, and countries related to curriculum leadership, while scientific field mapping yielded findings about co-citation analysis. The VOSviewer (https://www.vosviewer.com/) program was used in these analysis processes. Van Eck and Waltman (2010) developed VOSviewer, a free analysis program, for creating and viewing maps in bibliometric research. Programs are generally used in bibliometric analysis studies because scientific publications accessed from the database can be saved in one or several files and easily visualized by uploading them to the analysis program (Öztürk, 2022).

Ethics Committee Approval

Given that this study was based on a bibliometric analysis of published articles/chapters on curriculum leadership and included a document review of the studies encompassed in the research, obtaining approval from an ethics committee was not required.

Results

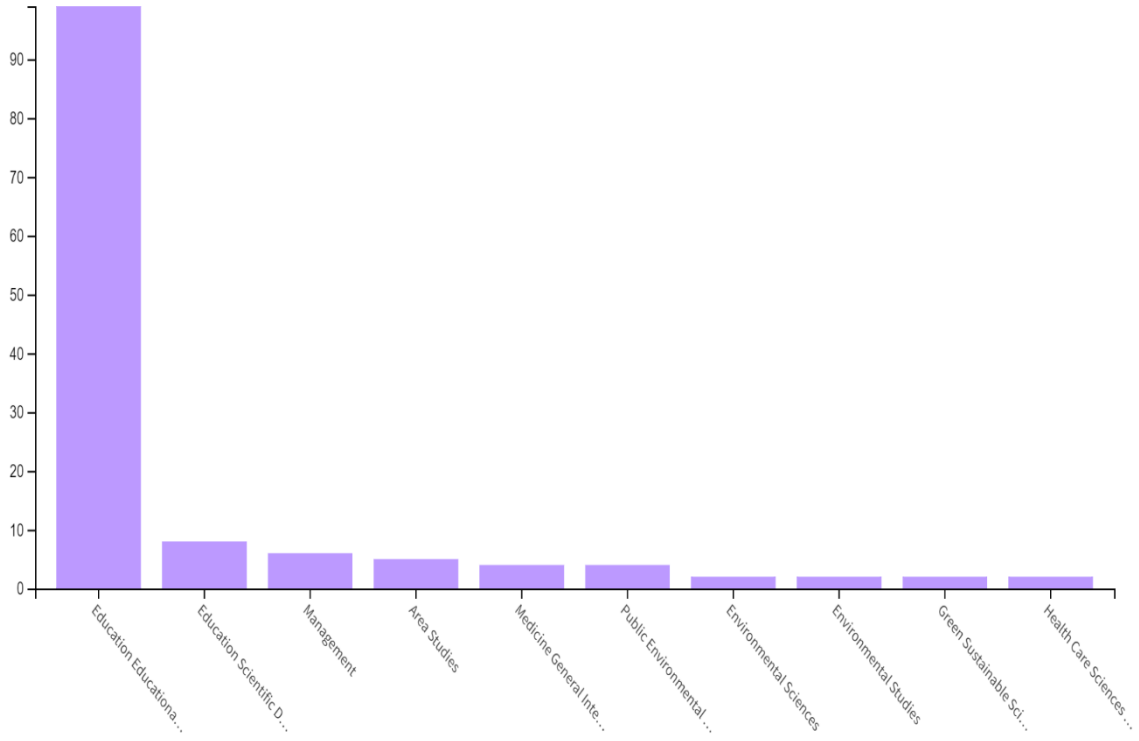
In this section, the findings obtained from the research are presented based on the research questions.

The Distribution of Studies by Subject Area on Curriculum Leadership

When the distribution of studies on curriculum leadership according to subject areas was evaluated, most studies (80.64%) were published in Education and Educational Research. In addition, it was determined that studies were conducted on Education Scientific Disciplines (6.45%) and Management (4.83%). Other subject areas were Area Studies, Medicine General Internal, Public Environment Occupational Health, Environmental Sciences, Environmental Studies, Green Sustainable Science Technology, and Health Care Science Services, respectively. The distribution of studies according to subject areas is presented in detail in Figure 2. In Figure 2, the study areas are given on the horizontal line, and the percentages of the studies are given on the vertical line. Since a figure was prepared based on the ten most studied areas, the percentages may vary.

Figure 2

Distribution of Studies by Subject Area



The Distribution of Studies over the Years

It was determined that the first article about curriculum leadership within the scope of Web of Science was published in 1991. In the following years, no article on curriculum leadership was found, and an article on this subject was published again in 2002. Up until 2009, there were between one and four articles published annually. The analysis revealed an increase in the number of articles on curriculum leadership, particularly since 2010, with the highest number

published in 2017 (12.90%). The distribution of the evaluated articles by year is shown in detail in Table 1.

Table 1

Distribution of Studies Over the Years

Year of Publication	*n*	*%*
1991	1	0.806
2002	2	1.613
2003	1	0.806
2004	1	0.806
2005	2	1.613
2006	3	2.419
2007	4	3.226
2008	3	2.419
2009	3	2.419
2010	9	7.258
2011	9	7.258
2012	4	3.226
2013	4	3.226
2014	8	6.452
2015	8	6.452
2016	8	6.452
2017	16	12.903
2018	3	2.419
2019	6	4.839
2020	3	2.419
2021	9	7.258
2022	8	6.452
2023	8	6.452
2024	1	0.806

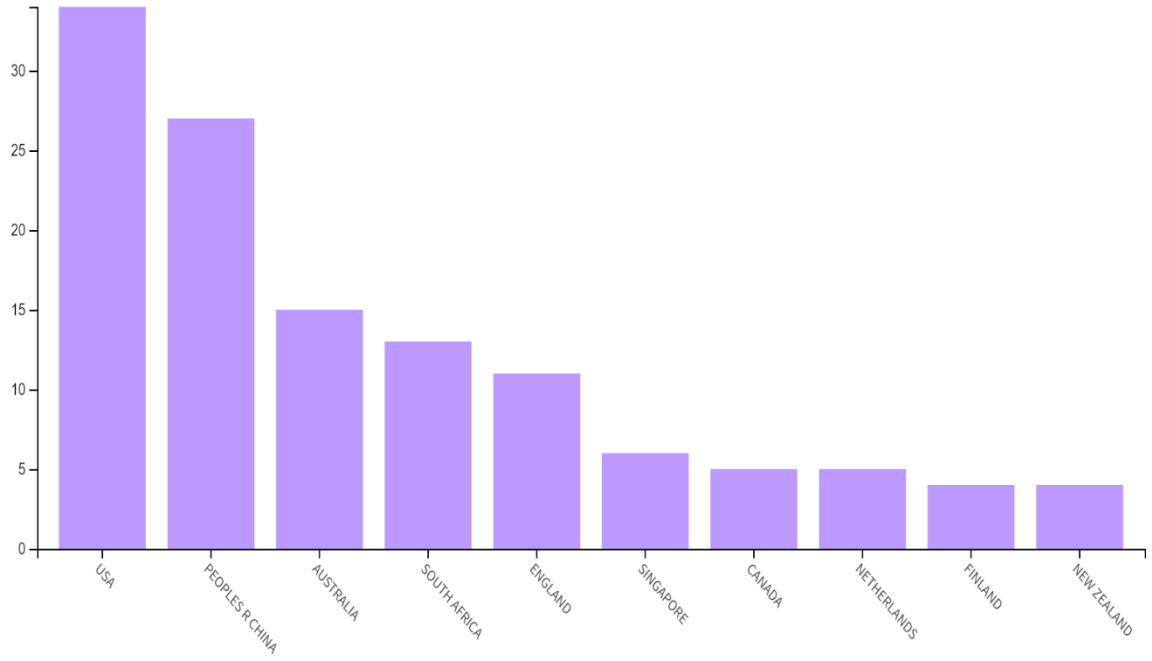
The Distribution of Studies by Country

The United States (27.41%), the People's Republic of China (21.77%), Australia (12.09%), and South Africa (11.29%) with the most studies on curriculum leadership. Also, it was determined that countries such as England, Singapore, and Canada (8.87%) conducted studies on curriculum leadership. Figure 3 presents detailed information on the distribution of curriculum leadership research by country. In Figure 3, the countries are given on the horizontal line, and

the percentages of the studies are given on the vertical line. Since a figure was prepared based on ten countries with the most studies, the percentages may vary.

Figure 3

Distribution of Studies by Country

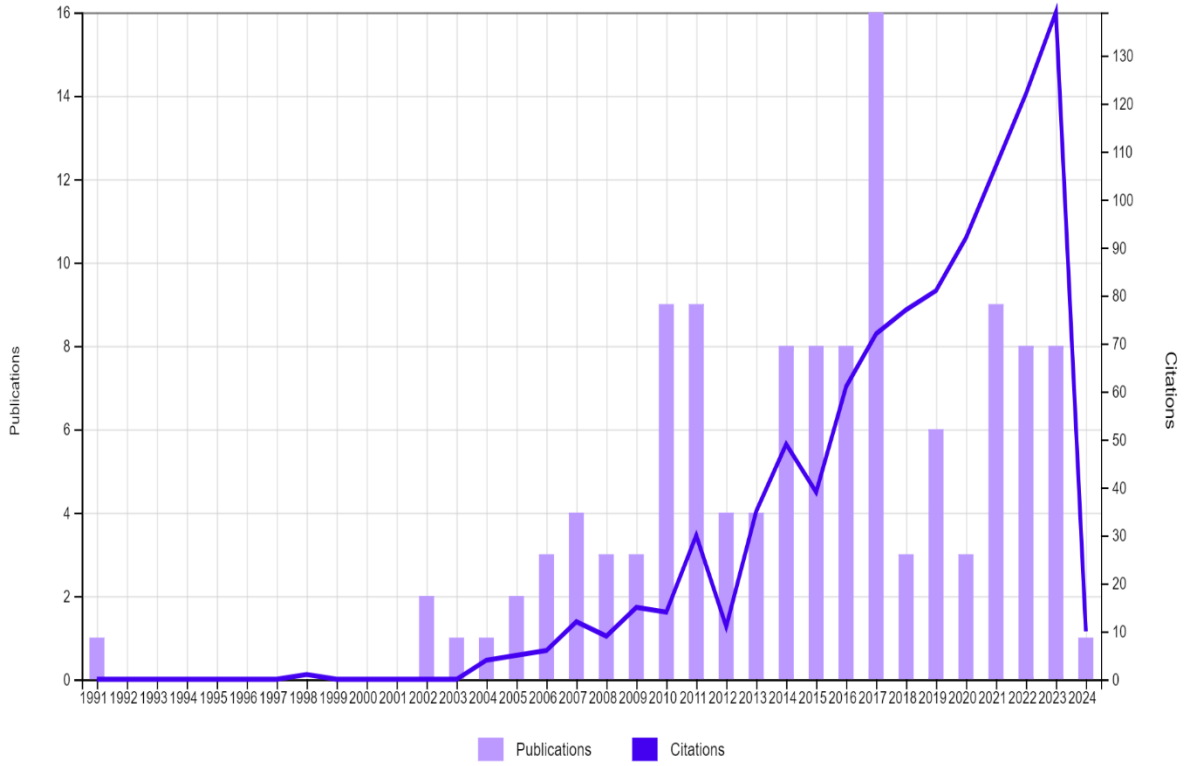


The Distribution of Citations to Studies over the Years

Examining the distribution of studies in the field of curriculum leadership by years revealed that 2023 received the most citations. Simultaneously, there has been a steady increase in references to studies on curriculum leadership since 2015. However, there is no correlation between the number of citations and the number of publications on curriculum leadership. In 2017, there were 72 citations on curriculum leadership, marking the year with the highest number of publications (16). Conversely, 2023 saw half as many publications as 2017, with 139 citations. Figure 4 presents detailed information about the distribution of curriculum leadership studies and the number of citations. In Figure 4, the years are given on the horizontal line and the numbers of the studies are provided on the vertical line. At the same time, the columns in Figure 3 show the number of publications, while the graph line shows the number of citations.

Figure 4

Distribution of Citations to Studies

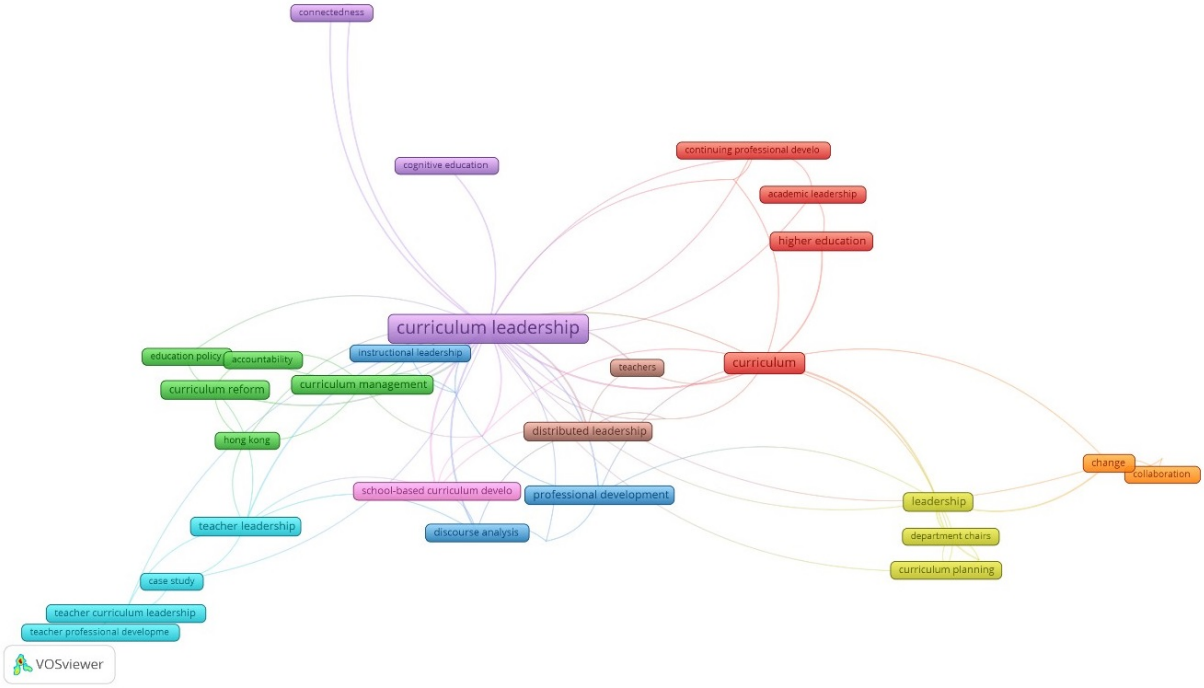


The Most Commonly Used Keywords in Studies

The most commonly used keywords in curriculum leadership studies were curriculum leadership (32.20%), curriculum (9.32%), leadership (5.08%), professional development (4.23%), and curriculum management (3.38%). The most commonly used keywords in curriculum leadership articles are shown in Figure 5. In Figure 5, keywords are seen in different colors. Keywords used together are marked in similar color tones. Different color tones can be considered as different keyword groups. On the other hand, the font size of keywords also varies depending on the frequency of use of the keyword. For example, since curriculum leadership is the most frequently used keyword, it is shown in the largest font size.

Figure 5

Most Frequently Used Keywords in Studies



The frequency of keywords preferred in curriculum leadership studies is presented in Table 2.

Table 2

Distribution of Keywords Used in Studies

Key Words	*n*
Curriculum Leadership	38
Curriculum	11
Leadership	6
Curriculum Management	4
Curriculum Reform	4
Distributed Leadership	4
Higher Education	4
Change	3
Curriculum Development	3
Curriculum Planning	3
Discourse Analysis	3
Educational Leadership	3

Table 2 (*Continued*)	
Academic Leadership	2
Accountability	2
Administration	2
Case Study	2
Change Management	2
Cognitive Education	2
Collaboration	2
Connectedness	2
Continuing Professional Development	2
Curriculum Change	2
Curriculum İnnovation	2
Department Chairs	2
Education Policy	2
Faculty Development	2
Hong Kong	2
İnstructional Leadership	2

The Citation Distribution of the Authors

Galton(13.63%) has been identified as the most cited author in curriculum leadership studies. In addition, Law(13.42%) and Wai-Yan Wan(13.42%) were the other two most cited authors. On the other hand, Ylimaki(10.33%), who published the most articles related to curriculum leadership, is also one of the prominent authors in the number of citations. When the cited authors are examined, it is understood that many researchers work in curriculum leadership. Information on the citation numbers and number of studies of authors publishing in the field of curriculum leadership is detailed in Table 3.

Table 3

Number of Articles/Chapters and Citation Counts of Authors

Author (Surname, Name)	*Number of Articles/Chapters*	*Number of Citations (n)*
Galton, Maurice	4	66
Law, Edmond Hau-Fai	6	65
Wai-Yan Wan, Sally	4	65
Ylimaki, Rose M.	9	50
Stark, Joan S.	2	36
Beneker, Tine	2	26
Roth, Wolff-Michael	2	21

Table 3 (*Continued*)

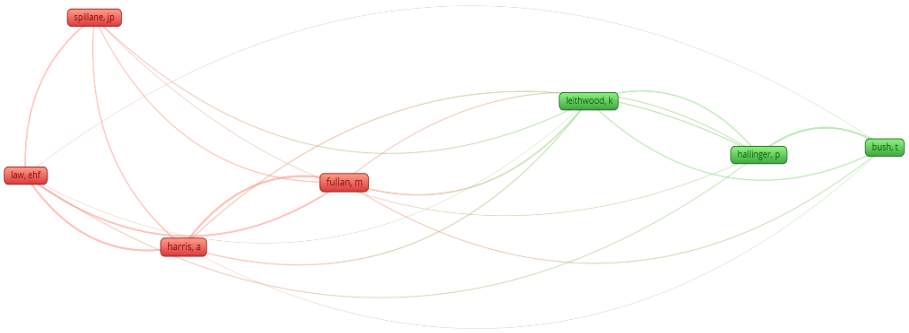
Lee, Chi Kin John	2	20
Uljens, Michael	3	18
Cardno, Carol	2	16
Mentz, Kobus	2	9
Tapala, Tshepo T.	2	9
Tan, Kelvin	3	8
Chen, Robin Jung-Cheng	2	7
Hsieh, Chuan-Chung	2	7
Tseng, Huan-Kan	2	7
Chen, Junyuan	2	6
Lim, Cher Ping	2	6
Xiong, Xi Bei	2	6
Xu, Fenghua	2	6
Zhang, Yishi	2	6
Buchanan, Michael T.	2	5
Ratnam-Lim, Christina	3	4
Collett, Karen	2	4
Green, Lena	2	4
Heng, Mary Anne	2	4
Avizhgan, Maryam	2	3

The Co-Citation Analysis of Studies

Co-citation analysis shows the co-citation status of two studies. Therefore, it differs from citation analysis. Citation analysis reveals the most cited authors on the specified subject, in other words, the most influential researchers in that field of study. Co-citation analysis shows authors who are cited together. It also expresses how often two authors are cited together at the same time. When evaluating the most frequently cited authors in curriculum leadership studies, the prominent authors are, respectively, Fullan with 46 joint citations, Harris with 40 joint citations, Law, and Hallinger, each with 32 joint citations, Leithwood with 31 joint citations, Bush with 25 joint citations, and Spillane with 23 joint citations. Figure 6 presents the findings from the co-citation analysis in curriculum leadership studies.

Figure 6

Most Cited Authors (Co-citation Analysis)



The Journals that Publish the Most Articles/Chapters related to Studies and Receive Citations

When the journals that published and cited the most articles on curriculum leadership were evaluated, the highest number of articles was found in the e-book Curriculum Leadership by Middle Leaders: Theory, Design, and Practice (9.80%). In addition, School Leadership & Management (7.84%), South African Journal of Education (7.84%), and Curriculum Journal (7.84%) are the journals that include the most curriculum leadership articles.

In descending order, the journals with the highest number of citations are: Educational Management Administration & Leadership, with 113 citations across three articles; Research in Higher Education, receiving 57 citations from three articles; School Leadership & Management, with 48 citations in four articles; South African Journal of Education, accruing 42 citations in four articles; Educational Administration Quarterly, with 40 citations from three articles; and International Journal of Leadership in Education, garnering 38 citations in three articles. The results based on the citation rankings are detailed in Table 4.

Table 4

Top 10 Journals Publishing the Most Articles/Chapters on Curriculum Leadership

Journal Name	*Number of Articles/Chapters (n)*	*Number of Citations*
Curriculum Leadership by Middle Leaders: Theory, Design and Practice	5	8
School Leadership & Management	4	48
South African Journal of Education	4	42
Curriculum Journal	4	33
Educational Management Administration & Leadership	3	113
Research in Higher Education	3	57
Educational Administration Quarterly	3	40
International Journal of Leadership in Education	3	38
Journal of Educational Change	2	28
International Research in Geographical and Environmental Education	2	25

Table 4 (*Continued*)

Research in Science Education	2	12
Bridging Educational Leadership, Curriculum Theory and Didaktic: Non-Affirmative Theory of Education	2	11
Education As Change	2	9
Leadership and Policy in Schools	2	7
Asia-Pacific Education Researcher	2	5
Leadership in Diverse Learning Contexts	2	5
Frontiers in Psychology	2	3
Sustainability	2	3
Asia's High Performing Education Systems: The Case of Hong Kong	2	2

The Most Cited Articles

Examining the most cited studies in curriculum leadership, we found that Faculty Development for Educational Leadership and Scholarship, with 98 citations, stood out in terms of citation frequency. The article talks about the University of Michigan Medical School Medical Education Scholars Program, designed to train medical education leaders, and the program's results have become the most cited study on curriculum leadership. In addition, the other most-cited article is "Interprofessional Education For Whom? - Challenges And Lessons Learned From Its Implementation In Developed Countries And Their Application To Developing Countries: A Systematic Review" (cited 88 times). In this article, a systematic review study on interprofessional education was conducted. When the keywords used in these most cited articles are examined, it is seen that the keywords featured in this research are frequently used. The findings regarding the most cited articles are presented in Table 5.

Table 5

Most Cited Articles in Curriculum Leadership Studies

Article Title	*Article Author*	*Publication Date*	*Number of Citations*
Faculty Development For Educational Leadership And Scholarship	Gruppen, LD; Frohna, AZ; Anderson, RM; Lowe, KD	2003	98
Interprofessional Education For Whom? - Challenges And Lessons Learned From Its Implementation In Developed Countries And Their Application To Developing Countries: A Systematic Review	Sunguya, Bruno F.; Hinthong, Woranich; Jimba, Masamine; Yasuoka, Junko	2014	88
Enacting Teacher Leadership: The Role Of Teachers In Bringing About Change	Lai, Edith; Cheung, Derek	2015	42
Teacher Participation in Curriculum and Pedagogical Decisions: Insights into Curriculum Leadership	Ho, Dora Choi Wa	2010	41
Curriculum Leadership in a Conservative Era	Ylimaki, Rose M.	2012	32

Table 5 (*Continued*)

Empowering Principals to Lead and Manage Public Schools Effectively in The 21st Century	Mestry, Raj	2017	30
Distributed Curriculum Leadership in Action: A Hong Kong Case Study	Law, Edmond; Galton, Maurice; Wan, Sally	2010	30
Principal-Teacher Interactions and Teacher Leadership Development: Beginning Teachers' Perspectives	Szeto, Elson; Cheng, Annie Yan-Ni	2018	29
Developing Curriculum Leadership in Schools: Hong Kong Perspectives	Law, Edmond Hau-Fai; Galton, Maurice; Wan, Sally Wai-Yan	2007	25
Curriculum Leadership Roles of Chairpersons in Continuously Planning Departments	Stark, J.S.; Briggs, CL; Rowland-Poplawski, J	2002	25
Geocapabilities and Curriculum Leadership: Balancing The Priorities of Aim-Based and Knowledge-Led Curriculum Thinking in Schools	Uhlenwinkel, Anke; Beneker, Tine; Bladh, Gabriel; Tani, Sirpa; Lambert, David	2017	23
Exploring The Role of Leadership in Facilitating Teacher Learning in Hong Kong	Law, Edmond H. F.	2011	23
Understanding The Work and Perceptions of Teaching Focused Faculty in A Changing Academic Landscape	Rawn, Catherine D.; Fox, Joanne A.	2018	21
Transforming an Academy Through The Enactment of Collective Curriculum Leadership	Ritchie, Stephen M.; Tobin, Kenneth; Roth, Wolff-Michael; Carambo, Cristobal	2007	20
Reconceptualizing Professional Development for Curriculum Leadership: Inspired by John Dewey and Informed by Alain Badiou	Kesson, Kathleen R.; Henderson, James G.	2010	19
Secondary School Principals in Curriculum Reform: Victims or Accomplices?	Walker, Allan; Qian Haiyan; Zhang Shuang	2011	18
Leadership of Vocational High School Principals in Curriculum Reform: A Case Study in Taiwan	Hsiao, Hsi-Chi; Chen, Mu-Nen; Yang, Hao-Sen	2008	18

Discussion, Conclusion, and Implications

According to the results, educators, policymakers, and other stakeholders can learn about the field of curriculum leadership in three dimensions: "**Overview** and Trends", "Influential Authors and Key Themes", and "Geographical Distribution and Contextual Insights".

Overview and Trends

The concept of curriculum leadership has evolved significantly since its inception, as evidenced by publications indexed in the Web of Science database. These publications date back to 1991, showcasing various studies across various years and journals. A review of the literature in this field reveals that the earliest significant works explicitly addressing this concept are Leo H. Bradley's Curriculum Leadership and Development Handbook (1985) and Allan A. Glatthorn's Curriculum Leadership (1987). This observation aligns with the emergence of the first article in the Web of Science database, marking the early developmental stages of the concept. The 1991 article, "French Immersion In Canada: Theory And Practice" discusses the requirements for French educational administrators in curriculum leadership. The 1991 article, with its focus on educational administrators and the involvement of prominent figures in educational management such as Bradley and Glatthorn, suggests an initial intertwining of the concept of curriculum leadership with educational management. Despite these early contributions, it is noteworthy that the volume of literature on curriculum leadership remained relatively sparse until 2010. This trend indicates a gradual development and increasing interest in the field over time.

As of 2012, there has been a growing interest in curriculum leadership among academics specializing in curriculum development. Ylimaki (2012) notes that in the evolution of this concept, there is a substantial body of research within the domain of educational management focusing on instructional or curriculum leadership. However, these studies often overlook the intricacies of curriculum theory and the influence of policy. Consequently, leadership in curriculum studies has traditionally garnered limited attention. Nevertheless, recent trends indicate a significant increase in scholarly articles on this topic.

Eminent scholars such as Rose M. Ylimaki, Maurice Galton, Edmond Hau-Fai Law, Sally Wai-Yan Wan, Joan S. Stark, and Chi Kin John Lee, known for their contributions to curriculum and teaching, have amassed a considerable number of publications and citations. This surge suggests a pivotal shift in the trend of curriculum leadership toward curriculum development along with educational management. Ylimaki and Ho's most cited publications especially introduce the reader to historical evolutions and trends in curriculum leadership. In their most cited work, "Curriculum Leadership in a Conservative Era," Ylimaki (2012) examines the impact of conservative educational policies on curriculum leadership from the 1980s onwards. In "Teacher Participation in Curriculum and Pedagogical Decisions: Insights into Curriculum Leadership," Ho (2010) examines the changing role of teachers in curriculum decision-making processes over time, emphasizing the increasing recognition of teachers as curriculum leaders and links this change to broader educational reforms that advocate for more participatory and inclusive approaches to curriculum development.

Influential Authors and Key Themes

The results indicate that Ylimaki has authored nine publications and received 50 citations in the field of curriculum leadership. Similarly, Law has authored six publications and garnered 65 citations. Galton's contribution includes four publications, attracting 66 citations, while Wai-Yan Wan has also produced four publications, receiving 65 citations in total. Notably, scholars such as Stark and Lee, despite having a modest output of two publications each, have achieved over 20 citations. The analysis of academic journals mirrors this pattern. Three of the top ten

reviewed journals primarily focus on curricula, while another three exhibit a direct correlation with management studies. The prevalence of keywords related to curriculum and management in these publications further corroborates this trend.

Considering the most frequently referenced keywords in the research, 'curriculum leadership' ranks first, followed by 'curriculum' and 'leadership.' This observation aligns with the ambiguity found in defining 'curriculum leadership' within the literature. According to Hairon et al. (2016), the absence of a universal definition for curriculum leadership is understandable, given the broad spectrum of definitions attributed to both 'curriculum' and 'leadership'. The research scope similarly reflects this lack of clarity in the key concepts emphasized. Various contexts, such as 'distributed', 'educational', 'academic', and 'instructional' leadership employ the term 'leadership'. The prominence of terms like distributed leadership in the keyword analysis and the high citation counts for works by authors like Fullan and Spillane, who work on distributed leadership, reflect the acceptance and application of distributed and transformational leadership theories in curriculum leadership studies. These theories emphasize the distribution of leadership roles across various stakeholders and the transformational influence leaders have in educational settings. This supports the findings that highlight collaborative and distributed leadership practices in curriculum contexts (Spillane, 2004).

Leadership is often defined as the process of influencing others to achieve common goals, a perspective supported by Bush and Glover (2003). Spillane (2004) states that leadership refers to the legitimization or exercise of influence over stakeholders by an individual or group of leaders to achieve common goals in a given situation or context. Terms such as educational leadership, instructional leadership, moral leadership, and strategic leadership refer to the specific situation or context in which the act of influence takes place. Similarly, various aspects of education, such as teaching, professional development, in-service training, reform, planning, change, and innovation, are intrinsically linked to the concept of curriculum. Curriculum means the planned interaction of pupils with instructional content, materials, resources, and processes for evaluating the attainment of educational objectives (Indiana Department of Education, 2013). Leadership in the educational context entails creating a supportive culture and implementing effective practices by leaders to achieve desired school outcomes. Therefore, curriculum leadership refers to the adoption of effective practices by leaders to support the school's comprehensive curriculum that encompasses all aspects of student learning (Glatthorn et al., 2019; Hairon et al., 2016; Lee & Dimmock, 1999).

Curriculum leadership encompasses several dimensions: It involves engaging in practices that support the development, improvement, and transformation of the school curriculum; coordinating with multiple stakeholders to ensure horizontal and vertical alignment of the curriculum; anticipating curriculum goals or objectives while taking into account the needs of various school stakeholders; guiding these stakeholders towards effective curriculum implementation; and fostering collaboration to bolster the school curriculum (Hairon et al., 2016; Sorenson et al., 2011; Wiles, 2008). The most frequently used keywords in the studies examined, such as 'collaboration', 'development', 'innovation', and 'change' align closely with these dimensions. These keywords are also consistent with the nature of curriculum leadership. According to Glatthorn et al. (2019), the key to curriculum leadership is that curriculum

specialists, school administrators, and teacher-leaders should review and monitor curriculum policies to make sure they align with curricular goals and support student learning.

Examining the most cited publications reveals the direction of the relationship between concepts like collaboration, professional development,and curriculum leadership. It also explores the impact of distributed leadership among teachers and principals on curriculum leadership. For instance, Lai and Cheung (2015), in their study titled "Enacting Teacher Leadership: The Role of Teachers in Bringing About Change" focus on the role of teacher leadership in curriculum change, emphasizing themes such as empowerment, collaboration, and professional development. Their research emphasizes the critical role teachers play as curriculum leaders and change agents within schools. In "Principal-Teacher Interactions and Teacher Leadership Development: Beginning Teachers' Perspectives", Szeto and Cheng (2018) examine the interactions between principals and beginning teachers and how these relationships influence teacher leadership development. They highlight the importance of supportive leadership practices and the role of mentorship in nurturing teacher leaders who can contribute to curriculum development. Ritchie et al. (2007) discuss the challenges and benefits of collective curriculum leadership in "Transforming an Academy Through the Enactment of Collective Curriculum Leadership," where educators share leadership rather than centralizing it. They highlight the difficulties of changing established practices and the importance of fostering a culture of collaboration to overcome these challenges.

Geographical Distribution and Contextual Insights

This research also explores the geographic concentration of curriculum leadership studies. Kaya's (2023) 'Dominant Trends and Issues in the field of Curriculum Studies', Yurt's (2023) 'Bibliometric Analysis of Studies on Curriculum Alignment', and Cuang et al.'s (2024) "Internationalization of the Curriculum" reveal that the research in these fields is mainly conducted in countries such as the United States of America, Canada, England, China, South Africa and the Netherlands. Thus, as expected, studies on curriculum leadership are centered in the United States, the People's Republic of China, Australia, South Africa, and the United Kingdom. This trend corresponds with the locations of the most prolific and frequently cited scholars in this field, who are predominantly affiliated with universities in the USA, China (specifically Hong Kong), and the UK. In a similar vein, a significant proportion of the scholarly journals that publish the majority of articles and chapters on curriculum leadership are based in the USA and the UK.

The prominence of studies from these countries suggests that curriculum leadership is a universal concern but is influenced by local educational policies, cultural contexts, and administrative structures. Understanding these geographical nuances helps contextualize curriculum leadership practices and policies, making them more applicable and effective in diverse settings. For instance, in their "Developing Curriculum Leadership in Schools: Hong Kong Perspectives" article, Law et al. (2007) explore the promotion of curriculum leadership in Hong Kong schools, emphasizing enhancing leadership skills among teachers and principals. The authors discuss the importance of distributed leadership and the impact of professional learning communities on effective curriculum leadership. Similarly, in their study, Lai and Cheung (2015) identify leadership practices and qualities of school teachers as they engaged in effecting change initiated by a curriculum reform in Hong Kong. In "Curriculum Leadership in a Conservative Era," Ylimaki (2012) discusses how shifts in political climates have influenced

curriculum development and leadership, particularly in the context of standardized testing and accountability measures in the United States. In a study conducted in Taiwan, Hsiao et al. (2008) sought to identify the curriculum leadership roles of vocational high school principals in implementing curriculum reform. While some studies focus on the development of leadership skills and leadership roles, others address how various educational policies affect curriculum leadership.

General Overview and Recommendations

Examining the results reveals three main limitations in curriculum leadership studies. These are the study areas and geographical regions that address the concept of curriculum leadership, as well as the keywords used. The bibliometric research on curriculum leadership indicates that this concept was initially associated with educational management in the 1980s. However, it began to shift toward curriculum development studies in the 2010s. An increase in publications in journals directly related to curriculum development studies evidences this transition. These areas directly relate to some of the most cited articles and chapters. Nonetheless, the continued publication in journals associated with educational management and the citation of articles and chapters related to this field suggest that the relationship between curriculum leadership and management persists.

According to the results, the limitations of the key concepts of curriculum leadership research, as well as the exclusive focus on the topic by educational administrators and curriculum developers, make it crucial to include other perspectives in research. Future research needs to address other perspectives by developing clearer conceptual frameworks and exploring the impact of different leadership models on curricula. Additionally, there is a need for more empirical studies that examine the practice of curriculum leadership in diverse educational contexts, providing actionable insights for educators and policymakers. In addition, the prominent keywords and articles emphasize concepts such as management, leadership, professional development, but not technology or new approaches. Thus, the role of digital transformation and innovative pedagogies in curriculum leadership is an area ripe for investigation.

Another limitation of the studies highlighted in the research is their geographical focus; they primarily focus on countries such as the USA and China (Hong Kong). This geographic concentration may only reflect limited regional educational contexts. Therefore, there is a need for research in other countries, like Türkiye, to better understand the dynamics of curriculum leadership in the fields of curriculum globally.

The research also presents the most cited and prominent studies globally. Readers, educators, and policymakers are encouraged to learn from these studies and conduct similar studies in their local contexts. The results show that concepts such as curriculum leadership, professional development, curriculum management, distributive leadership, and educational leadership are prominent in the research. In this context, Turkish researchers should investigate the relationship between these concepts and curriculum leadership in the Turkish education system. Furthermore, the emphasis on collaboration, development, innovation, and change in the key terms of the research is in line with Türkiye's goals to promote a more dynamic, innovative, participatory, and equitable education system (MoNE, 2024). By adopting research insights on curriculum leadership and adapting them to the Turkish context, Türkiye can help

ensure that its education system meets current demands, anticipates future challenges, and prepares students for success in an increasingly complex world. The results of bibliometric research can guide researchers on which countries, authors, or journals to study current topics for new studies.

In conclusion, the bibliometric research highlights the evolving nature of curriculum leadership and its growing focus on the curriculum development area. While the initial association with educational management remains, there is a clear trend toward integrating this concept with curriculum and instruction. To advance this field, it is crucial to explore diverse perspectives, extend research beyond current geographic confines, and consider the impacts of digital transformation and innovative pedagogies. By doing so, educators and policymakers can better navigate and lead the future of educational systems on a global scale.

Author Contributions

The first author was responsible for conducting the literature review and leading the discussion of the study. The second author focused on writing the methodology section and performing the data analysis. Together, both authors collaborated to create a brief yet comprehensive summary of the study. All authors have carefully read, reviewed, and approved the final version of the manuscript.

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Uluslararası Eğitim Programları ve Öğretim Çalışmaları Dergisi
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TÜRKÇE GENİŞ ÖZET

Program Liderliği Araştırmaları: Bibliyometrik Bir Analiz

Giriş

Program liderliği, eğitim alanında birçok farklı kavram ile ilişkilendirilmektedir. Henderson'a (2010) göre alanyazında 100'den fazla program ve 200'den fazla liderlik tanımı bulunmaktadır. Sorenson ve arkadaşları (2011) program liderliğinin tanımlanmasının zorluğunu ve çeşitliliğini vurgulamakta, tanımın odaklanılan alana göre farklı şekillerde yapılabileceğini ifade etmektedirler. Dolayısıyla program liderliği, çeşitli araştırmacılar tarafından farklı şekillerde tanımlanmıştır. Wiles (2008) program liderliğini, iş birlikli ekiplerin kurulması ve karmaşık faaliyetlerin koordine edilmesi olarak görürken, Sorenson ve arkadaşları (2011), öğrenmeyi ve anlamayı geliştirmek için farklı bileşenleri birbirine bağlama şeklinde vurgulamaktadır. Glatthorn (1997) program liderliğini okul ve sınıf düzeyindeki işlevler üzerinden ele alırken, Henderson (2010) daha geniş bir perspektiften yenilikçi çalışmaların teorik ve pratik açıklanması olarak tanımlar. Program liderliği rolleri genellikle okul müdürü ve yöneticiler ile öğretmenler arasında paylaşılmaktadır. İdareciler, okulun kurum kültürü ve gidişatı üzerinde etkili olurken, öğretmenler öğretim ve program geliştirme konularında önemli roller üstlenmektedirler. Bu roller; kaynak yönetimi, iş birliği teşviki, mesleki gelişim ve programın uygulanması gibi çeşitli zorlukları da içermektedir. Bu durum göstermektedir ki program liderliğinin tanımı, rolleri ve zorlukları üzerine geniş bir çeşitlilik bulunmaktadır. Bu çalışmada program liderliği konusundaki eğilimlerin ortaya konulması amacıyla Web of Science kapsamında taranan çalışmaların bibliyometrik analizi gerçekleştirilmiştir.

Yöntem

Bu araştırmada, program liderliğine ilişkin makalelerin bibliyometrik yöntemle analizi gerçekleştirilmiştir. Bibliyometrik yöntemler, yayınlanmış araştırmaların tanımlanması, değerlendirilmesi ve izlenmesi için nicel bir araştırma süreci takip eden şeffaf ve tekrarlanabilir bilimsel süreçlere dayanmaktadır (Ercan, & Kan, 2004). Bu sayede hem okuyucuların hem de araştırmacıların herhangi bir konu alanında yapılan bilimsel araştırmalara ilişkin kapsamlı literatür taramasına ulaşmasına katkı sağlamaktadır (Zupic & Čater, 2015). Araştırmada yer alan dokümanların belirlenmesinde Web of Science (WoS) veri tabanından yararlanılmıştır. WoS doküman tarama ekranından "curriculum leadership (program liderliği)" anahtar kelimesi konu (topic) sekmesinde taranmış ve 152 arama sonucuna ulaşılmıştır. Bu sonuçlar içinden sadece makaleleri araştırma dâhil etmek için "article" sekmesiyle sonuçlar filtrelenmiş ve sonuç ekranında yer alan 124 makale ve kitap bölümü çalışmaya dâhil edilmiştir. Araştırmada program liderliği hakkındaki makalelere yönelik kapsamlı bibliyometrik analiz yapılarak okuyuculara

niceliksel ve haritalandırılmış bir literatür değerlendirmesi sunulmuştur. Bu analiz süreçlerinde VOSviewer programı kullanılmıştır.

Bulgular

Çalışmada, "program liderliği" anahtar kelimesiyle WoS veri tabanında yapılan taramada bulunan 124 makale bibliyometrik yöntemlerle analiz edilmiştir. Makalelerin çoğu (%80.64) Eğitim ve Eğitsel Araştırmalara yönelik dergilerde yayınlanmıştır. İlk makale 1991'de yayınlanırken 2002'ye kadar başka makale yayınlanmamıştır. 2002'den 2009'a kadar yıllık 1-4 arası makale yayınlanmış, 2010'dan itibaren makale sayısında artış görülmüş ve en fazla yayın 2017'de (%12.90) yapılmıştır. Program liderliği makalelerinin en çok yayınlandığı ülkeler sırasıyla Amerika Birleşik Devletleri (27.41%), Çin Halk Cumhuriyeti (21.77%), Avustralya (12.09%) ve Güney Afrika (11.29%) olarak belirlenmiştir. Atıf analizinde, program liderliği çalışmaları en çok 2023 yılında (n=139) atıf almış, 2015'ten itibaren atıflar düzenli bir artış göstermiştir. Anahtar kelimelerin analizinde, en sık kullanılanlar program liderliği (n=38), program (n=11), liderlik (n=6), mesleki gelişim (n=5) ve program yönetimi (n=4) olarak belirlenmiştir. Yazar analizinde ise en çok makale üreten yazar Ylimaki, Rose M. (n=9), en çok atıf alan yazar ise Galton, M. (n=66) olmuştur. Dergi atıf analizinde, Educational Management Administration & Leadership (113 atıf, 3 makale) en önde yer alırken, program liderliği makalelerine en çok yer veren dergiler Curriculum Leadership By Middle Leaders: Theory, Design and Practice e-kitabı (n=5), School Leadership & Management (n=4), South African Journal of Education (n=4) ve Curriculum Journal (n=4) dergileri olarak belirlenmiştir. En çok atıf alan makaleler arasında "Faculty Development for Educational Leadership and Scholarship" (n=98) ve "Interprofessional Education for Whom? - Challenges and Lessons Learned From its Implementation in Developed Countries and Their Application to Developing Countries: A Systematic Review" (n=88) ön plana çıkmaktadır.

Tartışma, Sonuç ve Öneriler

1991'den bu yana WoS'da program liderliği konusunda çeşitli dergilerde yayınlar yapılmıştır. Öncesinde ise bu konuda ilk önemli eserler 1985'te Leo H. Bradley'nin ve 1987'de Allan A. Glatthorn'un kitaplarıdır. 1991'de ilk makale, Fransız eğitim yöneticilerinin ihtiyaçlarını ele alan "French Immersion in Canada: Theory and Practice"dir. Leo H. Bradley ve Allan A. Glatthorn'un eğitim yönetimi alanında çalışmış olmaları ve 1991 yılındaki makalenin eğitim yöneticileri üzerine olmasından hareketle program liderliği kavramının başlangıçta eğitim yönetimiyle ilişkilendirildiği söylenebilir. Ylimaki'ye (2012) göre 2012 yılı itibari ile program liderliği konusunda hem program geliştirme alanında çalışan akademisyenlerin hem de uygulayıcıların artan bir ilgisi bulunmaktadır. Son yıllarda artan makale sayıları ve "Ylimaki, Maurice, Law, Wan, Stark ve Lee" gibi eğitim programları ve öğretim alanında çalışan isimlerin en çok makale ve atıf sayılarına sahip olmaları program liderliği kavramındaki eğilimin, eğitim yönetimi ile birlikte program geliştirme alanına doğru kaydığını göstermektedir. En çok makalenin yayınlandığı dergiler göz önüne alındığında da bu eğilim kendini göstermektedir. İlk on dergiden üçü doğrudan eğitim programları alanıyla ilişkiliyken, üçü de yönetim alanıyla doğrudan ilişkilidir. Benzer şekilde anahtar kavramlar da bu durumu doğrulamaktadır. Araştırmalarda en çok başvurulan anahtar kelimeler göz önünde bulundurulduğunda ilk sırayı program liderliği alırken, bunun ardından program ve liderlik kavramları gelmektedir. Alanyazın

değerlendirildiğinde bu durumun program liderliğinin tanımlanmasında ortaya çıkan belirsizlikle benzer olduğunu göstermektedir. Hairon ve arkadaşlarına (2016) göre, program liderliği kavramına ilişkin evrensel bir tanımın olmayışı, "program" ve "liderlik" kavramlarının tanımlarına yönelik geniş çeşitlilik göz önüne alındığında anlaşılabilir bir durumdur. Bununla birlikte program liderliği öğrenci öğreniminin tüm yönlerini kapsayan okulun planlanmış, yürürlüğe konmuş ve deneyimlenmiş programını destekleyen ortak hedefler doğrultusunda, liderlerin paydaşlar üzerindeki etkili uygulamaları şeklinde tanımlanabilmektedir (Lee & Dimmock, 1999; Hairon et al., 2016). Araştırma kapsamında dikkate alınan diğer bir konu da program liderliği çalışmalarının yoğunlaştığı ülkelerdir. Buna göre ilk dört ülke Amerika Birleşik Devletleri, Çin Halk Cumhuriyeti, Avustralya ve Güney Afrika olarak belirlenmiştir. Bu durum en çok yayın yapan ve atıf alan yazarların Amerika Birleşik Devletleri, Çin (Hong Kong) ve İngiltere'deki üniversitelerde görev yapıyor olması ile paralellik göstermektedir. Benzer şekilde program liderliği ile ilgili en çok makalenin yayınlandığı dergilerin de önemli bir kısmı ABD ve İngiltere kaynaklıdır. Analiz sonuçları doğrultusunda program liderliği konusunda eğitim programları ile ilgili çalışmaların artış göstereceği ve program liderliğinin farklı konular ile ilişkilendirilerek çalışılabileceği öngörülmektedir. Bununla birlikte çalışmaların belirli ülkelerle sınırlı kalmış olması nedeniyle, bu alanda diğer ülkelerde de çalışma yapılmasına, eğitim programları alanlarında program liderliğine ilişkin durumun ortaya konmasına ihtiyaç duyulduğu düşünülmektedir.

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Does Curriculum Autonomy Support Student Autonomy? An R-Based Analysis[1]

Engin Yıldırım, Ministry of National Education, enginyildirim1802@gmail.com,

0000-0002-0355-3546

Zeynep Ayvaz-Tuncel, Pamukkale University, zatuncel@pau.edu.tr,

0000-0003-1817-9603

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Abstract

This study aims to investigate the correlation between curriculum autonomy among middle school teachers and their support for learner autonomy. The study employed a correlational survey design. Data were gathered utilizing the Curriculum Autonomy Scale and the Supporting Learner Autonomy Scale. The sample comprised 420 teachers employed in middle schools situated in the central districts of a province in the Aegean region. Spearman's rho correlation tests and Quantile Regression analysis were employed to examine the sub-problems of the study. The research data indicate a positive relationship between middle school teachers' curriculum autonomy and their perceptions of the necessity and performation of supporting learner autonomy. The regression analysis's findings indicate that middle school teachers' attitudes on the necessity for and performation of promoting learner autonomy are significantly predicted by their degree of curricular autonomy. Consequently, the teachers' autonomy behavior in the curriculum has a favorable impact on the learner's autonomy behavior. This research may have generalizability limitations when it is conducted with middle school teachers working in one province.

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[1] This study originates from the first author's master's thesis, with some findings presented as an oral presentation at the10th International Curriculum and Instruction Congress.

Introduction

Education systems should develop curricula to specify the knowledge, skills and attitudes that students should acquire, ensure standardization, provide guidance to teachers and a framework for assessment and evaluation. Curricula can be developed at both the school and national levels. In Türkiye, all curricula are developed by the Board of Education under the Ministry of National Education (MoNE). However, this approach might also hinder the revision of curricula according to regional needs and conditions, restrict teachers' freedom of decision-making, and necessitate lengthy bureaucratic processes. Voogt et al. (2018) emphasize that such national approaches to curriculum development may restrict the freedom of schools and teachers in adapting the curricula at school and classroom levels. This freedom points to the concept of teacher autonomy in related literature. According to Çolak (2016), teacher autonomy necessitates that educators make and carry out decisions consistent with their professional expertise, in collaboration with peers, and guided by scientific, ethical, and pedagogical principles.

In the late 20th century, autonomy, which has been intensively discussed in educational research, has become an alternative to the classical understanding of education (Yolcu, 2019). According to Friedman (2003), autonomy is a philosophical term that refers to a set of concepts familiar to ordinary people, such as being true to oneself, doing things one's own way, defending what one believes in, thinking for oneself, and having one's own personality in the reformulation of gender equality. Especially with the reforms in education systems, more emphasis is being placed on teacher autonomy. Since 1985, Spain and France have implemented reforms to support autonomy. The United Kingdom followed suit in 1988, followed by Austria in 1993, Italy in 1997, and Lithuania, Luxembourg, and Romania in 2003 (Eurydice, 2007). It is argued that empowering teachers and giving them autonomy is an appropriate place to start solving school problems. In general, teacher autonomy is defined as teachers' feelings about whether they can control themselves and their work environment (Wu, 2015).

In educational studies literature, teacher autonomy is addressed in different dimensions. According to Öztürk (2011a), teacher autonomy can be categorized into three groups: teachers' involvement in school management and decisions related to education and training, planning and implementing instruction, and professional development. According to Frostenson (2012), teacher autonomy can be considered in three dimensions: professional, colleague and individual. Pearson and Hall (1993) consider teacher autonomy in two different dimensions: curriculum autonomy and general instructional autonomy. Çolak and Altınkurt (2017) also discussed teacher autonomy in four different dimensions as "professional development autonomy, teaching procedural autonomy, curriculum autonomy and professional communication autonomy" (p. 40). It is seen that the teaching process and curriculum autonomy have a wider place in determining autonomy dimensions in terms of the education and training process.

Curriculum autonomy encompasses freedom and authority teachers have in making decisions regarding planning lessons, selecting instructional materials, and sequencing topics. This dimension of autonomy gives teachers control over the content and structure of what is taught in the classroom. It also includes decisions about the choice of learning activities, teaching resources and the overall organization of the curriculum to effectively meet the needs

of learners (Janhonen-Abruquah et al., 2020; Nguyen & Walkinshaw, 2018; Vangrieken, et al., 2017). The concept of curriculum autonomy is crucial to enable teachers to adapt their teaching practices to best suit the learning needs of their students. By having autonomy over the curriculum, teachers can make informed decisions about the content and methods used in teaching and thus may improve the quality and relevance of the educational experience for students. Curriculum autonomy also plays an important role in shaping the overall teaching and learning process, allowing teachers to adapt and customize their approach to meet the different needs of students (Özdemir et al., 2023; Zhang et al., 2021). In short, teachers who have autonomy over the curriculum can create engaging and effective learning experiences that respond to the needs of their students and ultimately contribute to improved learning outcomes and student achievement.

Curriculum autonomy is a state of being rather than an asset status (Erss et al., 2016) and falls within the scope of pedagogical aspects of teacher autonomy such as curriculum development, curriculum design, and curriculum testing (Friedman, 1999). During the implementation of the curriculum, autonomous teachers create curriculum with children and help children to be autonomous by following the issues and questions that concern children (Castle, 2004).

Teacher curriculum autonomy depends on developing a curriculum that is flexible enough to ensure teacher autonomy and give teachers more decision-making responsibility and authority (Şentürken & Oğuz, 2020). In the process of curriculum implementation, it is an important requirement to ensure compliance with individual habits, behavioral patterns, the focus of the curriculum, students' learning performance, and the existing curriculum and syllabi (Ornstein & Hunkins, 2016). However, it is often overlooked in the curriculum development process how the quality of the curriculum affects the teachers who implement the curriculum (Hewitt, 2018). Teachers' autonomy can be restricted, sometimes through centrally determined curricula and textbooks (Wermke & Höstfält, 2014) and sometimes through general evaluations (Amrein-Beardsley, 2009). Cheng (2021) argues that when control of the curriculum is taken away from teachers, it undermines their professional identity and autonomy and further complicates the dynamics of test-driven education.

In Turkey, all practices related to curriculum development are carried out centrally by the Ministry of National Education (MoNE) Board of Education. Which subjects will be taught, how they will be taught, curricula and textbooks are determined by decisions taken by the MoNE (Bümen, 2019). Through curricula that are limited at this level, teachers' expert decisions to determine the learning and teaching process activities that may be needed in the context of the classroom, school, region and society are largely limited (Güven, 2010). Due to the central exams being implemented and the focus on exam success (Bümen, 2019), teachers are expected to implement the curricula completely, and this prevents teachers from being autonomous in determining the content of the curricula (Öztürk, 2011b). In environments where learning is systematically measured and reported, teachers are granted relative autonomy (Gómes, 2023). According to Dorji (2023), by freeing schools and teachers from the constraints of centralized curriculum development, stronger schools, more satisfied teachers and better prepared students can be achieved.

Teacher autonomy can significantly influence the development of learner autonomy in the classroom. Teachers equipped with autonomous skills are more likely to promote learner

autonomy (Asmari, 2013). The role of the teacher is crucial in introducing students to autonomous learning and implementing strategies to foster learner autonomy (Yuzulia, 2020). Teachers need to guide and supervise students to ensure the effectiveness and efficiency of the autonomous learning process (Zhao, 2018). Teachers' autonomy support is an effective approach to motivate students to learn (Fu et al., 2023), and it also has a positive impact on students' learning (Mammadov & Schroder, 2023).

Studies are looking at teachers' autonomy and control over curriculum, according to a review of the literature. While Cotterall (2000) discussed curriculum design principles that promote autonomy in language teaching, Morgado and Sousa (2010) and De Almeida and Viana (2022) examined the relationship between teachers' curriculum autonomy and their professional development. Hong and Youngs (2014) examined the effects of the national curriculum in Korea on teacher autonomy. Similarly, Yolcu (2019) focused on the relationship between teacher autonomy and curriculum. In literature, studies focus on teaching methods, curriculum designs and approaches that support students' autonomy. Studies are addressing the relationship between teachers' autonomy support and students' autonomous motivation (Black & Deci, 2000), evaluating teachers' approaches to supporting student autonomy (Çaylı, 2019), examining the effects of flipped classrooms on learner autonomy (Çibik, 2017), and examining the effect of autonomy support on academic achievement and learning outcomes (Ergin, 2016; Fu et al., 2023; Mammadov & Schroder, 2023). Teachers' views on supporting learner autonomy have also been addressed (Oğuz, 2013b; Sabancı, 2007; Swatevacharkul, 2022). It is thought that this study will contribute to the literature by examining the relationship between teachers' behaviors of supporting learner autonomy and curriculum autonomy. During the implementation of curricula developed with a national approach in schools, it is of great importance for teachers to be able to reflect their own autonomy in the process of curriculum implementation in line with the needs, in other words, to exhibit curriculum autonomy to achieve the goals of the curricula. However, during the implementation of curricula, the autonomy opportunities that teachers will give to their students are as valuable as their own autonomy. Supporting students' autonomous behaviors by teachers can help students develop their free will, self-confidence and motivation, and reveal their different talents. This study aims to investigate the correlation between curriculum autonomy among middle school teachers and their support for learner autonomy. Separate discussion was held regarding the relationship between curriculum autonomy and the dimensions of "necessity of supporting learner autonomy" and "performation of supporting learner autonomy." At the same time, it will be tried to determine whether teachers' curriculum autonomy predicts learner autonomy.

In this direction, the research aims to answer the following questions;

1. Is there a relationship between secondary school teachers' curriculum autonomy and their supportting of learner autonomy (necessity-performation)?

2. Do middle school teachers' curriculum autonomy significantly predict their supportting for learner autonomy (necessity-performation)?

Method

Research Design

This study examined the relationship between middle school teachers' curriculum autonomy and their support for learner autonomy, it was designed as correlational research. The correlational research investigates the possibility of a relationship between two or more variables and also sometimes describes an existing relationship between variables (Büyüköztürk et al., 2017; Creswell & Creswell, 2023; Frankel & Wallen, 2005). In studies organized according to correlational research, the variables between which a relationship will be sought are symbolized separately in a way that allows a relational analysis between them. Accordingly, the study examined whether there is a relationship between middle school teachers' curriculum autonomy and their support for learner autonomy and whether curriculum autonomy predicts their support for learner autonomy.

Population and Sample

2355 middle school teachers employed in the central districts of an Aegean province during the 2020–2021 school year make up the study population. The Provincial Directorate of National Education provided data on the number of branch teachers employed by the study population in middle schools. Using the sample size table compiled by Büyüköztürk et al. (2017) as a guide, the sample size representing the population was calculated to be between 322-500 values for the whole population of 2355 middle school teachers. Convenience sampling was used at this point. When convenience sampling is used, participants fill out the scales once the researcher notifies them of the study (Stratton, 2021). Although the convenience sampling approach has drawbacks like exclusion and self-selection bias (Golzar et al., 2022), the scales used in the study were only shared directly within the messaging group of teachers employed in the schools addressed by the scope, and the appropriate safety measures were implemented. Therefore, the study's sample consisted of 420 secondary school teachers who were informed about the study and whose results were reliable.

In the process of reaching the required sample number, firstly, the proportions of the teachers working in the middle schools in the two central districts of the province where the study was conducted were examined according to the districts where they work. It was determined that the number of teachers working in the first district was 1143 and their proportion of the population was 49%; the number of teachers working in the second district was 1212 and their proportion of the population was 51%. It was ensured that all branch teachers working in middle schools could be represented in the sample by considering their proportion in the population. Male instructors made up 41.9% of the study's participants, while female teachers made up 58.1%. 3.1% of teachers are 1–5 years senior, 16.7% are 6–10 years senior, 27.1% are 11–15 years senior, 26.2% are 16–20 years senior, and 26.9% are more than 20 years senior.

Data Collection Instruments

The personal information form developed by the researchers, the Curriculum autonomy Scale (Yolcu & Akar-Vural, 2020) and the Scale for Supporting Learner Autonomy (Oğuz, 2013a) were used to collect data.

Curriculum Autonomy Scale

In the study, the "Curriculum Autonomy Scale (CAS)" developed by Yolcu & Akar-Vural (2020) was used to collect data on curriculum autonomy. The scale has four theoretical dimensions and 13 items, based on the findings of exploratory factor analysis. These dimensions include "Evaluation Autonomy" (Items 11, 12, 13), "Autonomy in Professional Development" (Items 4, 5, 6, 7), "Procedural Autonomy" (Items 8, 9, 10), and "Planning Autonomy" (Items 1, 2, 3). A 5-point Likert-type scale is used to rate the items: 1=Never, 2=Rarely, 3=Sometimes, 4=Very Often and 5=Always. The scale's four-factor structure was shown to account for 67.44% of the overall variance. There was also confirmation of the scale's four-factor structure (χ2/sd=1.47; SRMR=.06, RMR=.05; AGFI=.89; GFI=.93; RMSEA=.052, CFI=.98) by the findings of the confirmatory factor analysis performed on the collected data. According to the results of the reliability analysis, Cronbach's alpha value for the whole scale was .82, and Cronbach's alpha values for the scale dimensions were .73 for the autonomy in professional development dimension, .81 for the procedural autonomy dimension, .75 for the evaluation autonomy dimension and .75 for the planning autonomy dimension (Yolcu & Akar-Vural, 2020). The reliability coefficients of the measurement were recalculated for the scope of this investigation. Accordingly, it was found to be .68 for the autonomy in professional development, .77 for procedural autonomy, .63 for evaluation autonomy, .85 for planning autonomy and .83 for the whole scale. Confirmatory factor analysis can be performed by approximating the data to the normal distribution in data that do not fit the normal distribution (Çapık, 2014). Confirmatory factor analysis was not conducted for this study since the Curriculum autonomy scale data did not fit the normal distribution and could not be approximated to fit the normal distribution.

Supporting Learner Autonomy Scale

The data related to supporting learner autonomy as another variable addressed in the study were collected with the "Supporting Learner Autonomy Scale (SLAS)" developed by Oğuz (2013a). Permission to use the scale was obtained from the researcher via e-mail.

There are three factors and sixteen items on the scale. "Support for Feelings and Thoughts (Item 1, 2, 3, 5, 6, 7)," "Support for Learning Process (Item 8, 9, 10, 11, 12, 12)," and "Support for Assessment (Item 13, 14, 15, 16, 16)" are the factors that make up the scale. A 5-point Likert-type rating scale is used to measure opinions on the requirement and display of the conduct listed in each of the scale's items independently (1 = Never, 2 = Rarely, 3 = Sometimes, 4 = Very Often, and 5 = Always). The scale's item-total correlation coefficients fell between.43 and.65. For necessity and performation, the three-factor structure of the scale accounts for 56.25% and 62.07% of the total variance, respectively. The results of the confirmatory factor analysis conducted on the collected data confirmed the three-factor structure of the scale for necessity (χ2/sd = 2.33; AGFI= .89; GFI= .92; RMSEA= .064; CFI=.97) and for performation (χ2/sd = 2.93; SRMR= .05; AGFI= .86; GFI= .90; RMSEA= .077; CFI=.97) (Oğuz, 2013a). The necessity for autonomy-supportive behaviors had a Cronbach's alpha internal consistency coefficient of.89, with sub-factors showing that it was .85 for the support for feelings and thinking, .76 for the support for learning process, and 0.81 for the support for assessment. The scale's performation of autonomy-supportive behaviors had a Cronbach's alpha internal consistency coefficient of.92; the sub-factors for the support for feelings and thinking, the support for learning process, and the support for assessment were .88, .80, and .86, respectively.

The measurement's reliability coefficients were recalculated for the current investigation. The reliability coefficients for the necessity of supporting learner autonomy were, therefore,.87 for the support for feelings and thought, .85 for support for learning process, .85 for the support for assessment, and.93 for the entire scale; for the performation of supporting learner autonomy, the reliability coefficients were.87 for the support for feelings and thought ,.86 for the support for learning process ,.87 for the support for assessment, and.93 for the entire scale. In the context of the study, the Supporting Learner Autonomy scale data did not fit the normal distribution. Confirmatory factor analysis was not done since the data could not be approximated to a normal distribution.

Data Collection Process

The research was conducted with approval from the Pamukkale University Social and Human Sciences Research and Publication Ethics Committee. Official permissions to gather data were secured after submitting an application to the Provincial Directorate of National Education. In response to the Ministry of National Education's decision to suspend in-person instruction because to the COVID-19 pandemic, data collecting instruments and the Participation Consent Form were digitized in online formats with these permissions. Contact information and information about the study were sent to teachers in the two central districts where it was carried out. The procedure was carried out until the required sample size was obtained, and participation was entirely optional.

Data Analysis

The data of the study were analyzed using IBM SPSS 20.0 (Statistical Package For Social Science) provided by Pamukkale University and open source R 4.1.2 (The R Project for Statistical Computing) package programs. The data from 420 participants' online forms containing their responses to the CAS and SLAS were coded and transferred to the SPSS program. Similarly, the total score data obtained from the participant's responses to the CAS and SLAS were also transferred to the "R" program.

Prior to examining the research's problems, Harman's Single Factor Test was used to determine whether a common method bias would arise from administering the scales to participants in the same setting and at the same time. This test assumes that if there is a common method bias, it will manifest itself as the presence of a single factor, and if the single factor variance calculated as a result of the calculation is not more than 50%, it is accepted that there is no common method bias (Kock, 2021; Podsakoff et. al. 2024). The single-factor test results calculated within the scope of the research show that there is no common method bias (31.54%).

Table 1 displays the findings of the Shapiro-Wilk and Kolmogorov-Smirnov tests used to assess whether the scale data has a normal distribution.

Table 1

Normality Test Results for Curriculum Autonomy and Supporting Learner Autonomy Scales and Subscales

		Kolmogorov-Smirnov			Shapiro-Wilk		
Scale	Sub Dimensions	Value	*df*	*p*	Value	*df*	*p*
CAS	Autonomy in Professional Development	.158	420	.00	.911	420	.00
	Procedural Autonomy	.131	420	.00	.915	420	.00
	Evaluation Autonomy	.130	420	.00	.949	420	.00
	Planning Autonomy	.107	420	.00	.958	420	.00
	Whole Scale	.054	420	.01	.985	420	.00
SLAS (Necessity)	Support for Feelings and Thoughts	.197	420	.00	.846	420	.00
	Support for Learning Process	.173	420	.00	.859	420	.00
	Support for Assessment	.156	420	.00	.885	420	.00
	Whole Scale	.139	420	.00	.904	420	.00
SLAS (Performation)	Support for Feelings and Thoughts	.126	420	.00	.921	420	.00
	Support for Learning Process	.117	420	.00	.927	420	.00
	Support for Assessment	.121	420	.00	.924	420	.00
	Whole Scale	.090	420	.00	.953	420	.00

In analyzing data for normal distribution, the Shapiro-Wilk test results are considered when the sample size is below 50, while the Kolmogorov-Smirnov test results are used for sample sizes above 50 (Büyüköztürk, 2019). A p-value below .05 in the Kolmogorov-Smirnov test indicates a rejection of the normality assumption, signifying statistically significant results (Pallant, 2020). As a result, Table 1 shows that, at the.05 significant level ($p<.05$), neither the CAS nor SLAS sub-dimensions nor the scale as a whole have a normal distribution.

Non-parametric analytic techniques were employed to examine the data that were not distributed normally in accordance with the results of normality tests. Since the data were not normally distributed, the correlation between CAS and SLAS and its sub-dimensions was ascertained using the Spearman-rho correlation coefficient. Quantile Regression analysis, one of the non-parametric regression analysis methods used for non-normally distributed data, was used to determine the prediction of middle school teachers' perceptions of the necessity of supporting learner autonomy and the performation of supporting learner autonomy. While the conditional mean of the dependent variable is modeled in the parametric regression method, the conditional median of the dependent variable (Q2-tau=0.50) or other quantiles such as Q1 (tau=0.25), Q3 (tau=0.75) are modeled in quantile regression (Cebeci, 2019). In this study, the quantile Q2 (tau=0.5) was modeled as the dependent variable for quantile regression analysis, while the necessity of supporting learner autonomy and its performation were considered separately. Although quantile regression technique has limitations such as the difficulty of parameter estimations (Waldmann, 2018), some aspects of it are developing, and the calculation procedures are time-consuming (Olsen et al., 2012), it was preferred in this

study due to its advantages such as being quite flexible, not having any assumptions for the dependent variable, and being resistant to extreme values (Cebeci, 2019). Cebeci (2019) states that quantile regression is a very flexible regression, does not make any assumptions for the dependent variable, and is a method resistant to outliers.

Results

Relationship between curriculum autonomy and support for learner autonomy

In the study, the relationship between middle school teachers' curriculum autonomy and their support for learner autonomy (necessity and performation) was analyzed. The findings regarding the relationship between teachers' curriculum autonomy and their perceptions of the necessity of supporting learner autonomy and their perceptions of performation support for learner autonomy are given in Table 2. Table 2 shows that teachers' curriculum autonomy scores and supporting learner autonomy (necessity) scores, as well as curriculum autonomy scores and supporting learner autonomy (performation) scores, have a moderately positive relationship (rho1=0,434; rho2=0,434; p<.05).

Table 2

Spearman-Brown Coefficients for the Relationship between Curriculum autonomy and Supporting Learner Autonomy

Spearman Correlation		Curriculum autonomy
Supporting Learner Autonomy (Necessity)	*Spearmanrho1*	.430*
	p	.000
	N	420
Supporting Learner Autonomy (Performation)	*Spearmanrho2*	.484*
	p	.000
	N	420

**p<.05*

Table 3 presents the results of the Spearman-Brown correlation coefficients pertaining to the association between the curricular autonomy scale and the supporting learner autonomy (necessity) and supporting learner autonomy (performation) sub-dimensions. The sub-dimensions of the curriculum autonomy scale and all sub-dimensions of the supporting learner autonomy (necessity) scale, as well as the sub-dimensions of the curriculum autonomy scale and all sub-dimensions of the supporting learner autonomy (performation) scale, have a significant relationship, according to Table 3.

Table 3

Spearman-Brown Coefficients for the Relationship between Curriculum Autonomy and Supporting Learner Autonomy Subdimensions

Supporting Learner Autonomy Scale		Curriculum Autonomy Scale / Scale	Autonomy in Professional Development	Procedural Autonomy	Evaluation Autonomy	Planning Autonomy	Scale Total
Supporting Learner Autonomy (Necessity)	Support for Feelings and Thoughts	*rho*	.439	.364	.187	.251	.397
		P	.000*	.000*	.000*	.000*	.000*
		N	420	420	420	420	420
	Support for Learning Process	*rho*	.392	.307	.116	.193	.331
		p	.000*	.000*	.017*	.000*	.000*
		N	420	420	420	420	420
	Support for Assessment	*rho*	.409	.302	.244	.236	.400
		p	.000*	.000*	.000*	.000*	.000*
		N	420	420	420	420	420
	Scale Total	*rho*	.472	.376	.212	.263	.434
		p	.000*	.000*	.000*	.000*	.000*
		N	420	420	420	420	420
Supporting Learner Autonomy (Performation)	Support for Feelings and Thoughts	*rho*	.454	.406	.217	.263	.416
		P	.000*	.000*	.000*	.000*	.000*
		N	420	420	420	420	420
	Support for Learning Process	*rho*	.429	.359	.226	.240	.414
		p	.000*	.000*	.000*	.000*	.000*
		N	420	420	420	420	420
	Support for Assessment	*rho*	.443	.366	.356	.240	.480
		p	.000*	.000*	.000*	.000*	.000*
		N	420	420	420	420	420
	Scale Total	*rho*	.492	.418	.294	.270	.484
		p	.000*	.000*	.000*	.000*	.000*
		N	420	420	420	420	420

**p<.05*

The autonomy in professional development sub-dimension of the curriculum autonomy scale has a moderately positive relationship with the support for feelings and thoughts sub-dimension (*rho*=0,439; *p*<.05), the support for learning process sub-dimension (*rho*=0,392; *p*<.05), the support for assessment sub-dimension (*rho*=0,409; *p*<.05), and the entire scale (*rho*=0,472; *p*<.05) of the support for learner autonomy (necessity) scale. The Procedural autonomy sub-dimension of the curriculum autonomy scale is found to have a moderately positive relationship with the support for feelings and thoughts sub-dimension (*rho*=0,364; *p*<.05), the support for learning process sub-dimension (*rho*=0,307; *p*<.05), the support for assessment sub-dimension (*rho*=0,302; *p*<.05), and the entire scale (*rho*=0,376; *p*<.05) of the support for learner autonomy (necessity) scale.

There is a weak positive correlation between the evaluation autonomy sub-dimension of the curriculum autonomy scale and the support for learner autonomy (necessity) scale's the support for feelings and thoughts sub-dimension (*rho*=0,187; *p*<.05), the support for learning process sub-dimension (*rho*=0,116; *p*<.05), the support for assessment sub-dimension (*rho*=0,244; *p*<.05) and the whole scale (*rho*=0,212; *p*<.05). There is a weak positive correlation between the planning autonomy sub-dimension of the curriculum autonomy scale and the support for learner autonomy (necessity) scale's the support for feelings and thoughts sub-dimension (*rho*=0,251; *p*<.05), the support for learning process sub- dimension (*rho*=0,193; *p*<.05), the support for assessment sub-dimension (*rho*=0,236; *p*<.05) and the whole scale (*rho*=0,263; *p*<.05).

It's observed that there is a moderate positive relationship between the autonomy in professional development sub-dimension of the curriculum autonomy scale and the support for feelings and thoughts sub-dimension (*rho*=0,454; *p*<.05), the support for learning process sub-dimension (*rho*=0,429; *p*<.05), the support for assessment sub-dimension (*rho*=0,443; *p*<.05) and the whole scale (*rho*=0,492; *p*<.05). It is seen that there is a moderate positive relationship between the Procedural autonomy sub-dimension of the curriculum autonomy scale and the support for feelings and thoughts sub-dimension (*rho*=0,406; *p*<.05), the support for learning process sub-dimension (*rho*=0,359; *p*<.05), the support for assessment sub-dimension (*rho*=0,366; *p*<.05) and the whole scale (*rho*=0,418; *p*<.05).

A weak positive correlation has been observed between the curriculum autonomy scale's evaluation autonomy sub-dimension and the support for feelings and thoughts sub-dimension (*rho*=0,217; *p*<.05), the support for learning process sub-dimension (*rho*=0,226; *p*<.05) and the learner autonomy support (performation) scale's whole scale (*rho*=0,294; *p*<.05), and a moderately positive correlation between the support for assessment sub-dimension (*rho*=0,356; *p*<.05). The support of learner autonomy (performation) scale's the support for feelings and thoughts sub-dimension (*rho*=0,263; *p*<.05), the support for learning process sub-dimension (*rho*=0,240; *p*<.05), the support for assessment sub-dimension (*rho*=0,240; *p*<.05), and the entire scale (*rho*=0,270; *p*<.05) are found to have a weakly positive relationship with the curriculum autonomy scale's planning autonomy sub-dimension. Teachers' curriculum autonomy and all of its sub-dimensions, as well as supporting learner autonomy and all of its sub-dimensions at the necessity and performation levels, were determined to be positively correlated based on these data.

In summary, Table 3 shows that there are statistically significant and positive relationships between all sub-dimensions of teachers' curriculum autonomy and all sub-dimensions related to the necessity and display of behaviors to support learner autonomy.

Prediction of curriculum autonomy on their support learner autonomy

In the study, the prediction of teachers' curriculum autonomy on their support for learner autonomy was examined. Since the data were not normally distributed, quantile regression analysis was conducted. Quantile regression analysis data on the prediction of secondary school teachers' curriculum autonomy levels on their perceptions of the need and performation to support learner autonomy are given in Table 4.

Table 4

Quantile Regression Analysis Results of Supporting Learner Autonomy Predicted by Curriculum Autonomy

Predicted variable	τ (Quantil-Median)		β coef.	Lower bd	Upperbd
Model-1	0.5	Intercept Curriculum Autonomy(CA)	41.000 0.600	38.012 0.429	49.292 0.635
The Necessity to Support Learner Autonomy (NSLA)		Pseudo R^2= 0.035 (Mc Fadden) 0.220 (Cox and Snell) 0.220 (Nagelkerke)	*Pr (>F)* = 2.2e-16*** *F = 80*.010		
		$NSLA_{0.5}$ =41.000+0.600CA+Error			
Model-2	0.5	Intercept Curriculum Autonomy(CA)	30.389 0.722	21.907 0.560	41.764 0.887
The Performation to Support Learner Autonomy (PSLA)		Pseudo R^2 = 0.046 (Mc Fadden) 0.0290 (Cox and Snell) 0.0291 (Nagelkerke)	*Pr (>F)* = 2.22e-16*** *F = 74*.065		
		$DPLA_{0.5}$ =30.389+0.722CA+Error			

Note: i) τ denotes the quantile.
ii) β is the standardized regression coefficient.
*iii) *** denotes 0.01, ** denotes 0.05, * denotes 0.10 significance levels.*

Table 4 shows the regression coefficient and the statistical lower and upper confidence limits for the cut-off heights in Model-1 regarding the prediction of teachers' perceptions of the necessity of supporting learner autonomy by curriculum autonomy. Since the confidence intervals for both the regression coefficient and the curriculum autonomy variable did not contain 0 (zero) in terms of the cut-off height, they were determined to have statistical significance. ANOVA results regarding the significance of Model-1 compared to the null model show that Model-1 differs statistically significantly compared to the null model (F=80.010, p<.01). The Mc Fadden, Cox and Snell and Nagelkerke pseudo R^2 values for Model-1 are between zero and one, indicating that the model works. However, it can be said that Model-1 is not very strong in line with Mc Fadden, Cox and Snell and Nagelkerke values. For the relationship in the model to be very strong, Mc Fadden R^2 values should be between 0.20 and 0.40, Cox and Snell and Nagelkerke R^2 values should be 0.50 and above (Alpar, 2013). Considering the pseudo R^2 values, curriculum autonomy explains approximately 22% of the variance of the perceptions of the necessity of supporting learner autonomy. It can be expected that an increase of 1 standard deviation in terms of scores related to curriculum autonomy will cause an increase of 0.6 standard deviations in perception scores related to the necessity of supporting learner autonomy.

Upon examining Table 4, it is evident that the confidence intervals for both the regression coefficient and the curriculum autonomy variable in terms of the cut-off height in Model-2 regarding the prediction of teachers' perceptions of curriculum autonomy on the performation of supporting learner autonomy were found to be statistically significant since they did not contain zero. ANOVA results regarding the significance of Model-2 compared to the null model

showed that Model-2 differed statistically significantly compared to the null model (F=74.065, p<.01). Mc Fadden, Cox and Snell and Nagelkerke pseudo R^2 values for Model-2 are between zero and one, indicating that the model works. Again, in line with Mc Fadden, Cox and Snell and Nagelkerke values, it can be said that Model-2 is not very strong (Alpar, 2013). When the pseudo R^2 values are taken into consideration, curriculum autonomy explains approximately 29% of the variance of the perceptions about the performation of supporting learner autonomy. It can be expected that an increase of one standard deviation in terms of scores related to curriculum autonomy will cause an increase of 0.722 standard deviations in perception scores related to performation of support for learner autonomy.

According to the study's findings, instructors' opinions on curricular autonomy and their support for student autonomy (both necessary and displaying) are positively and moderate correlated. Additionally, it was shown that instructors' perceptions of support for learner autonomy are significantly predicted by their curricular autonomy.

In summary, according to the quantile regression analysis in Table 4, teachers' level of curriculum autonomy is a significant predictor of their perceptions of the need to support and display learner autonomy.

Discussion, Conclusion and Implications

This study investigated if teachers' support for learner autonomy and curricular autonomy are related. At the same time, it was also examined whether teachers' curriculum autonomy significantly predicted their perceptions of necessity and performation of supporting learner autonomy. According to the research findings, teachers' beliefs of the need to support learner autonomy and their perceptions of performation of support for learner autonomy are positively and moderately correlated with their curricular autonomy. It was concluded that teachers' curriculum autonomy positively affected their perceptions of supporting learner autonomy. No studies specifically addressing the relationship between teachers' curricular autonomy and support for learner autonomy were found in the literature review. The fact that curriculum autonomy is a relatively new idea to be examined independently of teacher autonomy may explain the lack of studies investigating the link between these two variables. However, similar to the findings in the current study, Yazıcı (2016) found a low and positive relationship between teacher autonomy and perceptions of the necessity of supporting learner autonomy, and a moderate and positive relationship between teacher autonomy and perceptions of exhibiting support for learner autonomy. Wu & Wu (2018) observed that there is a link between curricular autonomy as a sub-dimension of teacher autonomy. Teachers' taking the initiative and displaying autonomous behaviors while implementing the curriculum will also increase the possibility of supporting their students to direct their own behaviors. It can be said that teachers who exhibit autonomy behaviors also support their students' autonomous behaviors. Similarly, O'Reilly (2014) and Fu et al. (2023) concluded that teachers' support for learner autonomy predicted students' grade point average variable. Basri (2020) states that there is a dynamic interaction between the constructs of learner autonomy, teacher support and teacher autonomy.

The study revealed that teachers' curricular autonomy was a significant predictor of both teachers' perceptions of the importance of supporting learner autonomy and their perceptions of how to demonstrate it. As a result, curricular autonomy accounted for roughly 22% of the

variance in the necessity to support learner autonomy and 29% of the variance in the performation of learner autonomy. In the literature, curriculum autonomy was only examined as a sub-dimension in Yazıcı's (2016) study in which teacher autonomy and supporting teachers' learner autonomy were examined together. The study also found a positive relationship between teachers' curricular autonomy and their opinions of the necessity and performation of support for learner autonomy. Simultaneously, curricular autonomy is a major predictor of views of both the necessity for and performation of support for learner autonomy. In this regard, to raise more autonomous persons, applicable in-service education might be structured to promote instructors' curricular autonomy.

The literature study revealed that teachers' curriculum autonomy was largely treated as a sub-dimension of teacher autonomy, with nearly no research addressing curriculum autonomy as a teacher characteristic alone, particularly in the national literature. New studies can be conducted by considering curriculum autonomy as a phenomenon independent of teacher autonomy with different variables.

This research was conducted using quantitative methodology. In order to obtain in-depth results about teachers' curriculum autonomy and support for learner autonomy, qualitative methodology or mixed methods research using both quantitative and qualitative methodology can be utilized.

The study focused solely on two central districts of an Aegean province. In order to reduce the limitation regarding the generalizability of the research results, research with larger sample groups can be conducted. Only middle school teachers were included in the study. Research can be conducted in which preschool, primary and high school teachers are considered separately, preschool, primary and middle school teachers are included together as basic education teachers, or teachers at all levels from preschool to high school can be included.

Policy adjustments can be made to balance a centralized curriculum approach with teacher autonomy. Regulations that support teachers' authority to adapt the curriculum according to classroom needs can also indirectly encourage student autonomy.

This study has generalizability limitations due to geographical, institutional, and sample representativeness as it only covers middle school teachers in one province. In addition, collecting data based on teachers' perceptions may limit the transferability of results to different contexts due to individual biases and conditions that may change over time.

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TÜRKÇE GENİŞ ÖZET

Program Özerkliği Öğrenci Özerkliğini Destekliyor mu? R Tabanlı Bir Analiz

Giriş

Eğitim sistemleri; öğrencilerin hangi bilgi, beceri ve tutumları kazanmasını istediğini belirlemek, standartlaşmayı sağlamak, öğretmenlere rehberlik etmek ve ölçme ve değerlendirme için bir çerçeve oluşturmak amacıyla program geliştirmeye ihtiyaç duyarlar. Programlar ulusal düzeyde geliştirilebileceği gibi okul düzeyinde de geliştirilebilir. Türkiye'de ulusal program geliştirme anlayışı ile Millî Eğitim Bakanlığı tarafından tüm okullarda uygulanacak öğretim programları geliştirilmektedir. Ulusal program geliştirme yoluyla tüm öğrencilere ortak programın uygulanması ve böylece eğitimde eşitliğin sağlanması, tüm ülke imkânları dikkate alınarak planlama ve uygulamanın yapılması yoluyla kaynakların daha verimli kullanılması, denetleme mekanizmaları yoluyla kalitenin kontrol edilmesi ve öğrencilerde millî birlik ve beraberliğin oluşturulmasına olanak sağlaması mümkün olmaktadır. Ancak ulusal program geliştirme anlayışı programların bölgesel ihtiyaçlar ve koşullara göre düzenlenmesi, öğretmenin karar verme özgürlüğünün kısıtlanması ve uzun bürokratik yazışmaların yapılmasına da neden olabilir. Voogt ve diğ. (2018) ulusal düzeydeki program anlayışının okulların ve öğretmenlerin okul ve sınıf düzeyinde programları düzenleme özgürlüğünü kısıtladığına vurgu yapmaktadır. Bu özgürlük "öğretmen özerkliği" kavramı ile alanyazında kendine yer bulmaktadır. Çolak'a (2016) göre öğretmen özerkliği, eğitimcilerin mesleki uzmanlıklarıyla uyumlu, meslektaşlarıyla iş birliği içinde ve bilimsel, etik ve pedagojik ilkeler rehberliğinde kararlar almalarını ve uygulamalarını gerektirir.

Program özerkliği ise öğretmen özerkliği içerisinde ele alınan bir boyut olarak karşımıza çıkmaktadır. Program özerkliği; öğretmenlerin dersleri planlaması, öğretim materyalleri seçimi ve konuların sıralaması ile ilgili kararlar alma konusunda sahip oldukları özgürlük ve yetkiyi

kapsar. Özerkliğin bu boyutu, öğretmenlerin sınıfta öğretilenlerin içeriği ve yapısı üzerinde kontrol sahibi olmalarını sağlar. Aynı zamanda öğrenme etkinliklerinin, öğretim kaynaklarının seçimi ve öğrencilerin ihtiyaçlarını etkin bir şekilde karşılamak üzere programın genel organizasyonuna ilişkin kararları içerir (Nguyen & Walkinshaw, 2018; Janhonen-Abruquah ve diğ., 2020; Vangrieken ve diğ., 2017). Ancak kimi zaman merkezi olarak belirlenen program ve ders kitapları aracılığıyla (Wermke & Höstfält, 2014) kimi zaman da genel değerlendirmeler yoluyla (Amrein-Beardsley, 2009) öğretmenin özerkliği kısıtlanabilmektedir.

Öğretmenin sahip olduğu özerklik sınıfta öğrenen özerkliğinin gelişimini önemli ölçüde etkileyebilir. Özerk becerilerle donatılmış öğretmenlerin öğrenen özerkliğini teşvik etme olasılığı daha yüksektir (Asmari, 2013). Öğrencilerin kendi öğrenme sorumluluklarını üstlenecek şekilde özerk olmalarını sağlamak için öğrenci ihtiyaçlarının, beklentilerinin ve ilgilerinin dikkate alındığı, öğrenme-öğretme sürecinin öğrencinin katkılarıyla zenginleştirildiği bir ortamın oluşturulması gereklidir ve böyle bir ortam ancak kendisi de özerk olan, tüm donanımını öğrencilere aktarabilecek nitelikte öğretmenlerin varlığıyla gerçekleştirilebilir (Ergür, 2010, s.354).

Merkeziyetçi bir anlayışla geliştirilen öğretim programlarının okullarda uygulanması sırasında öğretmenlerin ihtiyaçlar doğrultusunda kendi öz iradelerini programların uygulanması sürecine yansıtabilmeleri, başka bir ifadeyle program özerkliği sergileyebilmeleri, öğretim programlarında ulaşılmaya çalışılan hedeflere ulaşılması bakımından büyük önem arz etmektedir. Bununla birlikte öğretim programlarının uygulanması sırasında öğretmenlerin kendi özerklikleri kadar, öğrencilerine tanıyacakları özerklik fırsatları da değerlidir. Öğrencilerin özerk davranışlar göstermesinin öğretmenler tarafından desteklenmesi, öğrencilerin özgür iradelerinin, öz güvenlerinin ve motivasyonlarının geliştirilmesini ve farklı yeteneklerinin ortaya çıkmasını sağlayabilir. Tüm bunlardan hareketle bu araştırmada ortaokul öğretmenlerinin program özerklikleri ile öğrenen özerkliğini desteklemeleri arasındaki ilişkinin incelenmesi amaçlanmıştır. 'Öğrenen özerkliğini destekleme gerekliliği' ve 'öğrenen özerkliğini desteklemeyi sergileme' boyutlarının program özerkliği ile ilişkisi ayrı ayrı ele alınmıştır. Aynı zamanda öğretmenlerin program özerkliğinin öğrenen özerkliğini yordayıp yordamadığı da belirlenmeye çalışılmıştır.

Yöntem

Araştırmada ortaokul öğretmenlerinin program özerklikleri ile öğrenen özerkliğini desteklemeleri arasındaki ilişkinin incelenmesi amacıyla ilişkisel tarama deseni kullanılmıştır.

Araştırmanın çalışma evrenini 2020-2021 eğitim öğretim yılında Ege bölgesinde bulunan bir ilin merkez ilçelerinde görev yapmakta olan 2355 ortaokul öğretmeni oluşturmaktadır. Çalışmaya katılan ve verileri geçerli toplam 420 ortaokul öğretmeni, araştırmanın örneklemini oluşturmaktadır. Örneklem sayısına ulaşma sürecinde ise önce çalışmanın yapıldığı ilin iki merkez ilçesindeki ortaokullarda görev yapmakta olan öğretmenlerin görev yaptıkları ilçelere göre evrendeki oranlarına bakılmıştır. Ortaokullarda görev yapmakta olan tüm branş öğretmenlerinin evrende bulundukları oran da dikkate alınarak örneklemde de temsil edilebilmeleri sağlanmıştır.

Veriler araştırmacı tarafından geliştirilen kişisel bilgi formu, Program Özerklik Ölçeği (Yolcu ve Akar-Vural, 2020) ve Öğrenen Özerkliğini Destekleme Ölçeği (Oğuz, 2013a) ile toplanmıştır. Araştırmanın verileri IBM SPSS 20.0 (Statistical Package For Social Science) ve R 4.1.2 (The R

Project for Statistical Computing) paket programları kullanılarak analiz edilmiştir. Araştırmanın alt problemlerine ilişkin analizler yapılmadan önce ölçeklerden elde edilen veriler doğrultusunda örneklemin normal dağılıma sahip olma durumu test edilmiştir. Buna göre Program Özerklik Ölçeği ve Öğrenen Özerkliğini Destekleme Ölçeğini'nin hem gereklilik hem de sergileme için hem tüm alt boyutları hem de ölçeğin tümünün .05 anlamlılık düzeyinde normal dağılıma sahip olmadığı belirlenmiştir ($p < .05$). Bu sebeple normal dağılmayan verilerin analizlerinde non-parametrik (parametrik olmayan) analiz yöntemleri kullanılmıştır. Program Özerklik Ölçeği ve Öğrenen Özerkliğini Destekleme Ölçeği ve alt boyutları arasındaki ilişki durumunu belirlemek için de Spearman-rho Korelasyon Katsayısı kullanılmıştır. Ortaokul öğretmenlerinin program özerkliklerinin öğrenen özerkliğinin desteklenmesinin gerekliliği ve sergilenmesine yönelik algılarını yordama durumunu belirlemek için de normal dağılmayan veriler için kullanılan non-parametrik regresyon analiz yöntemlerinden Kantil Regresyonu analizi kullanılmıştır.

Bulgular

Ortaokul öğretmenlerinin program özerklikleri ile öğrenen özerkliğini desteklemeleri arasındaki ilişkinin belirlenmesine yönelik bulgular öğretmenlerin hem program özerkliği puanları ile öğrenen özerkliğinin desteklenmesi (gereklilik) puanları arasında hem de program özerkliği puanları ile öğrenen özerkliğinin desteklenmesi (sergileme) puanları arasında orta düzeyde pozitif yönde bir ilişki bulunduğunu göstermektedir. Bununla birlikte genel olarak program özerkliği ölçeğinin alt boyutları ile öğrenen özerkliğini destekleme (gereklilik) ölçeğinin tüm alt boyutları arasında ve yine program özerkliği ölçeğinin alt boyutları ile öğrenen özerkliğini destekleme (sergileme) ölçeğinin tüm alt boyutları arasında anlamlı bir ilişki bulunduğu görülmektedir.

Ortaokul öğretmenlerinin program özerkliklerinin, öğrenen özerkliğinin desteklenmesinin gerekliliği ve sergilenmesine ilişkin algılarını yordama düzeyine ilişkin Kantil Regresyonu bulguları incelendiğinde de program özerkliğinin, öğrenen özerkliğinin desteklenmesinin gerekliliğine ilişkin algıları anlamlı bir şekilde yordadığı görülmektedir. Buna göre program özerkliği, öğrenen özerkliğinin desteklenmesinin gerekliliğine ilişkin algılara ait varyansın yaklaşık olarak %22'sini açıklamaktadır. Aynı şekilde program özerkliği, öğrenen özerkliğinin desteklenmesinin sergilenmesine ilişkin algıları anlamlı bir şekilde yordamakta ve öğrenen özerkliğinin desteklenmesinin sergilenmesine ilişkin algılara ait varyansın yaklaşık olarak %29'unu açıklamaktadır.

Tartışma, Sonuç ve Öneriler

Araştırma bulguları, öğretmenlerin program özerklikleri ile hem öğrenen özerkliğinin desteklenmesinin gerekliliği algıları hem de öğrenen özerkliğini desteklemeyi sergileme algıları arasında pozitif yönlü ve orta düzeyde bir ilişki olduğunu göstermektedir. Bu bulgular doğrultusunda öğretmenlerin program özerklikleri, öğrenen özerkliğinin desteklenmesine yönelik algılarını olumlu yönde etkilemektedir. Hem genel olarak öğretmen özerkliğinin hem de özel olarak program özerkliğinin öğrencilerin kendilerini özerk bireyler olarak hissetmeleri açısından büyük önem taşıdığı söylenebilir.

Araştırmada, öğretmenlerin program özerklikleri, öğrenen özerkliğinin desteklenmesinin hem gerekliliğine ilişkin öğretmen algılarının hem de sergilenmesine ilişkin öğretmen algılarının anlamlı bir yordayıcısı olduğu sonucuna ulaşılmıştır. Öğretmenlerin hem program özerklikleri hem de öğrenen özerkliğini desteklemeleri, öğretmenlerin mesleki gelişimi ve öğrencilerde geliştirilmek istenen başarı, beceri, derse katılım ve motivasyon gibi durumlar bakımından sahip oldukları önemli nitelikler arasındadır. Alanyazındaki çalışmalar ve mevcut araştırmanın verileri doğrultusunda program özerkliği sergileyen öğretmenlerin aynı zamanda öğrenen özerkliğini desteklemeyi gerekli görecekleri ve sergileyecekleri söylenebilir.

Araştırma sonuçları değerlendirildiğinde daha özerk bireyler yetiştirmek adına öğretmenlerin program özerkliğinin geliştirilmesine yönelik uygulamalı hizmet içi eğitimler düzenlenmesi önem arz etmektedir. Program özerkliğinin tek başına bir öğretmen özelliği olarak ele alınan çalışmaların ulusal alanyazında yok denecek kadar az olması dikkate alındığında, program özerkliğinin öğretmen özerkliğinden bağımsız bir olgu olarak farklı değişkenlerle ele alındığı yeni çalışmalar yapılabilir. Bu araştırma nicel metodolojinin kullanıldığı bir araştırmadır. Öğretmenlerin program özerklikleri ve öğrenen özerkliğini desteklemeleri hakkında derinlemesine sonuçlar elde etmek amacıyla nitel metodolojinin ya da nicel ve nitel metodolojinin birlikte kullanıldığı karma yöntemlerle de araştırmalar yapılabilir.

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Investigation of The Relationship Between Teachers' Individual Creativity and Self-Efficacy Beliefs for Applying Constructivist Approach*

Burcu Baruş, Akım Kolej, burcusokmenn@gmail.com,

ORCID id 0000-0003-1358-858X

Menekşe Eskici, Trakya University, menekseeskici@trakya.edu.tr,

ORCID id 0000-0001-6217-3853

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Abstract

The aim of this research is to examine the relationship between teachers' individual creativity and self-efficacy beliefs in applying constructivist approach. A correlational study was used in the research. As data collection tools, the Personal Information Form, the "Organizational Creativity Scale" and the "Teachers' Self-Efficacy Belief Scale for Applying a Constructivist Approach" were used. In light of the sub-problems, it was examined whether the scale scores were differentiated in terms of various variables (age, seniority year, type of school). The results were classified according to sociodemographic variables. Based on the findings obtained, it was concluded that the teachers' individual creativity and self-efficacy beliefs in applying the constructivist approach were at a high level. The individual creativity of the teachers did not differ according to age, seniority year, and the type of school where they were working at. It was concluded that the teachers' self-efficacy beliefs towards applying the constructivist approach were at a high level. While teachers' self-efficacy beliefs in applying the constructivist approach did not differ in terms of age, type of school, seniority year variable. It was concluded that the relationship between teachers' individual creativity and self-efficacy beliefs for applying constructivist approach was at a significant level in terms of total score and sub-dimension scores, at a high level and in a positive direction in general.

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Introduction

The developments that are experienced day by day have also created expectations in the qualities of the individual. These qualities include skills specific to the individual, such as creativity, learning to learn, critical thinking, empathy, and self-actualization. The way to develop these desired skills in individuals is also related to the way education is provided (Jia, 2010). Therefore, how education is provided and what needs to change has become a point of discussion. The education process has evolved away from the traditional approach where information is directly transferred, the student is only a listener, the application process of the students is neglected and after a while they refuse to think on their own, and towards a contemporary approach where the student is active and learns by doing and experiencing. With this approach, it has become almost impossible for the individual to remain static and has created the need to act in a certain dynamism. This rapid movement has revealed the need to leave traditional approaches behind in education and prefer new approaches (Erdamar Koç & Demirel, 2008).

The primary goal of education is to train the learner in the most equipped way in the education system (Berner, 2013). With this goal, the subject to be covered is determined and the scope of the course is drawn accordingly. After the scope of the course is drawn, the learning and teaching process is planned. After all these processes are completed, evaluation processes are designed to determine how and how effective education is, thus an education program is developed. The education programs of countries are updated according to the characteristics that the individual is expected to be trained. Before 2005, the behaviorist approach was the effective approach in the education system in Türkiye. In line with this approach, the student was in a passive position, the teacher was in a position to explain the lesson, and the student was in a position to listen to the lesson. With the constructivist approach, students' higher-order thinking skills, such as critical, creative thinking and empathy began to be given importance (Özden, 2013).

In an education system where the behaviorist approach was adopted, the learner was learning with a system of repeating the given information and memorizing it. Individuals who learned and were trained with the education programs prepared in line with this approach could not be competent and active in every aspect (Gökçe, 2009). The behaviorist approach, which could not contribute sufficiently to the needs and demands of the modern era, was abandoned by many countries and the constructivist approach was adopted in education (Bayraktar, 2015). In Turkey, since 2005, the approach on which education programs are based has been adopted as the constructivist approach (Güneş, 2010). The constructivist approach, which is the basis of education programs, aims to turn individuals into creative thinkers who can keep up with the period they are in. The approach on which education programs are based is not the behaviorist approach, where the learner repeats the information from the teacher and the student is not active, which is based on the rote method, but the constructivist approach, which aims for the individual to learn how to learn and foresees the interpretation and functional use of the learned information (Çubukçu, 2010).

Constructivist learning theory is no exception, its roots mainly include philosophy and psychology (Aydın, 2020). Constructivism, as a thought, is a new philosophy of learning (Yurdakul, 2010). The philosophical roots of constructivism can be traced back to ancient thinkers. It is assumed that Socrates, one of the important philosophers of the ancient age, is

a representative of the constructivist approach based on the idea that "knowledge is only perception", and this idea is seen as a successful model for teaching constructivism (Akpınar, 2010). Kant's studies on the integration of rationalism and empiricism also point to constructivism (Bayraktar, 2015). According to him, the subject cannot open up directly to the outside world. The subject can only organize experiences and develop knowledge with internally formed basic cognitive rules (Şişman, 2010). Later, with the transfer of the structuralist methodology to poststructuralism, the absolute status of rationalism is further deteriorated. Constructivism learning theory emerges from the development of cognitivism and develops into a new learning theory (Jia, 2010).

From a psychological perspective, the first scientists who contributed a lot to the development of constructivism and applied it to the classroom and to students' learning and development were Dewey, Piaget and Vygotsky (Delacampagne, 2010). Dewey advanced the theory of experiential learning by emphasizing the production and reform of experiences. Piaget is considered the pioneer of modern constructivism (Yurdakul, 2010). Based on psychological ideas, Piaget thinks that all knowledge has an external origin and that the cognitive development of students occurs naturally in the process of receiving information; that is, the process of learning information is also the process of constructing information (Özel & Bayındır, 2010).

In the 20th century, Vygotsky laid the foundations for the formation of modern constructivism. Individual learning is under a certain historical and social background (Jia, 2010). What is learned is not taken as in the constructivist approach, but is done by the learner interpreting the newly encountered information (Özden, 2013). The learner's previous experiences form the structure of the newly learned things (Fosnot & Perry, 2005). Information does not emerge on a subject but in the form that the learner designs in his mind (Kaptan & Korkmaz, 2001). The basic idea in the constructivist approach is that the learner self-regulates and develops his schemas in this process. Therefore, the learner is expected to be active (Bada & Olusegun, 2015). In this approach, students reach information themselves, learn to research and transfer it to their lives (Rousseau, 2011). The individual actively participates in the learning process and develops his skills according to his learning style. In school life, he/she actively gets to know himself/herself, discovers his/her pros and cons, and makes his/her own self-regulation in his/her own learning process (Erdem & Demirel, 2002).

Constructivism accepts that knowledge is a social construction of individuals and others through negotiation (Holloway, 1999). Therefore, learners should cooperate and communicate with others in the process of knowledge creation. In a collaborative and communicative environment, students can broaden their views instead of passively receiving information (Senemoğlu, 2003). In order to ensure these, learning environments should also help learners establish their knowledge systems, develop their innovative spirit and problem-solving skills (Turaşlı, 2012). In order for students to cooperate and reveal their skills, the educational environment they are in, the activities and opportunities provided are very important (Liu & Chen, 2010). The educational environment should be organized in a way that allows students to become aware of the problem, understand it, set limits, create experiments, and work with their peers, and students should feel curious and free in this environment, not bored and afraid (Bingham, 2004). Situations that will undermine the student's freedom of expression, independence, curiosity, inquisitiveness, creativity and self-confidence should be prevented (Çetin, 2012). When faced with such a situation, the student's self-confidence decreases and

their creativity cannot be expected to develop, therefore the classroom environment and activities should be organized in a way that is attractive and encourages the desire to learn new things, and that includes students with individual differences and different skills (Bada & Olusegun, 2015).

In a constructivist learning environment and in a class that is organized in accordance with its activities, no direct explanation is given, therefore, students can construct their own knowledge (Kırışoğlu, 2009). In this environment, skills such as research-investigation, criticism and creativity are given importance. It is desired that learners are individuals who produce, have the ability to express themselves, are active in communicating, have a questioning eye, make drafts and preliminary studies, transfer what they learn to their own lives and think creatively, and efforts are made for this (Akbaba & Kaya, 2015). The classroom environment where the constructivist approach is applied aims to direct students from passivity to activity in the learning environment, instill free and innovative thinking, and provide them with the ability to produce solutions by bringing an innovative perspective to problems (Fox & Schirrmacher, 2014). Instead of information directed to them without researching and questioning, learners tend to emphasize their own self-regulation and personal skills in this process and develop their cognitive skills; thus, learners aim to see this process as innovations to be discovered rather than a difficult and laborious job as they imagine in their minds (Elibol, 2012). In line with this goal, motivation towards learning is provided and orientation towards original and creative learning activities is provided (Şaşan, 2002).

In classroom environments where constructivist education is applied, methods such as cooperative learning and problem solving, which allow students to interact more with their peers, are used (Öztürk Aynal, 2010). Thus, learners are expected to develop their problem-solving skills and creativity. The level of individual creativity is also very important for the teacher who has the task of organizing a constructivist approach environment and activities for students to implement this (Turaşlı, 2012). In order for an educational program targeting learning in the constructivist approach to achieve successful results, teachers who carry out the approach and activities must also have mastered certain characteristics (Liu & Chen, 2010).

In the constructivist approach, teachers are important in organizing creative activities and the mentioned classroom environment (Cheung, 2012; Güven & Genç, 2024). In this approach, the role of the teacher is to create an interactive, simulative, guiding learning environment with the student (Cobb & Steffe, 2011; Pınar & Kaya, 2025). In the constructivist approach, the teacher envisaged should be a free thinker, keep up with the modern world, renew himself, care about individual characteristics, be proficient in field knowledge, but be open to learning together with the learners, not presenting the information without the effort of the learners (Lemke, 2014). In addition, in the constructivist approach, the teacher should have the following qualities: creating activities suitable for individual differences, encouraging learners, encouraging cooperation between peers and teacher-student, creating environments where students can express their ideas openly and express their questions freely, and informing that more than one perspective can be discovered and that reality is a matter of interpretation for individuals (Brooks & Brooks, 1999). By presenting distracting and thought-provoking problems, the teacher directs learners to think creatively and solve problems. Although the teacher asks questions to the learner, he/she does not give clues about what and how to think (Cleaver & Ballantyne, 2014). The teacher is like a north star; he/she does not tell the learner where to go, he/she helps him/her find his/her own way (Orlich et al., 2012). In addition to all

the teacher characteristics mentioned, self-efficacy beliefs are also one of the most important qualities because in the implementation of the programs, the self-efficacy belief of the individual is an important feeling that determines how he/she will do a job and how competent he/she feels towards it. The more competent the individual feels, the more successful he/she will be in that job.

This research, which aims to determine the self-efficacy beliefs and individual creativity levels of teachers against the approach on which the curriculum is based, is important because it will reveal how effective teachers are in the system in which they are and whether they consciously apply the constructivist approach. In addition to the concepts of creativity, constructivist approach, and self-efficacy, which are the subjects of research, examining some demographic characteristics (age, years of seniority) is a great richness for the literature. In this context, it is thought that a comprehensive research will contribute to literature by considering these demographic characteristics in the process of determining the relationships between teachers' individual creativity and self-efficacy beliefs while applying the constructivist approach.

The mission that the constructivist approach concept has assigned to the teacher has changed with the 21st-century education system and has directed teachers to develop their creativity, keep up with the times, plan original activities, and in short, organize their self-efficacy. Since memorization and transfer of knowledge are rejected in the approach that makes the student active, the teacher needs to use the skill of structuring this process. Within this approach, the individual creativity of teachers has gained an important dimension. For an educational program that adopts the constructivist approach to be successful, how the implementing teachers apply this approach using their individual creativity and their self-efficacy beliefs towards this program are two concepts that are very closely related to each other, so they were chosen as the subject of this research.

The problem statement of the research is "Is there a relationship between teachers' individual creativity and their self-efficacy beliefs regarding the implementation of the constructivist approach?" In line with this problem, the following questions were sought in the research.

1- What are the teachers' individual creativity levels and self-efficacy levels towards implementing the constructivist approach?
2- Do the teachers' individual creativity levels and self-efficacy levels towards implementing the constructivist approach differ significantly according to their age?
3- Do the teachers' individual creativity levels and self-efficacy levels towards implementing the constructivist approach differ significantly according to their year of seniority?
4- Do the teachers' individual creativity levels and self-efficacy levels towards implementing the constructivist approach differ significantly according to the type of school they work at?
5- Is there a statistically significant relationship between teachers' individual creativity levels and self-efficacy levels towards implementing the constructivist approach?

Method

In this study, the self-efficacy beliefs of primary school, secondary school and high school teachers towards the curriculum they implement using their individual creativity and the constructivist approach on which this curriculum is based were determined. The relationship between the two concepts was examined. It was examined whether the teachers' individual creativity and self-efficacy beliefs towards implementing the constructivist approach changed according to the variables of age, seniority year and the type of school they worked at.

Research Design

The research was prepared using quantitative research method. The correlational survey model was used in this research. The correlational survey model aims to describe a past or present situation as it is (Karasar, 2007). In this research, the correlational survey model was preferred because the existence of a relationship between two variables was investigated.

Sample

The population of the research consists of 3100 teachers (obtained by Kırklareli National Education Directorate as of November 23, 2023) working in 2436 educational institutions in Kırklareli province and all state schools affiliated to it in the 2023-2024 academic Year. A sample group was not determined within the scope of this research. The aim was to reach the entire universe. In line with this goal, teachers working in all schools in Kırklareli were reached via a link with the distributed letter written by Kırklareli National Education Directorate. In addition, a link containing the measurement tools of the research was sent by the researcher to the teachers who worked in Kırklareli province and district and could be reached. In this direction, the feedback from the teachers who voluntarily filled in the data collection tools were evaluated as data. When the data obtained in the research was examined, it was seen that data from 401 participants were collected.

In the study on the adequacy of the sample size specified by Krejcie and Morgan (1970) to represent the universe, it is accepted that the data of 346 people for 3500 people is the appropriate majority to represent the population. Based on this, it can be said that 401 participants have the competence to represent a population of 3100 people. Since no errors were detected when the data were examined, all the data were used. The demographic characteristics of the participants are given in Table 1.

Table 1

Demographic Characteristics of Teachers

Variable	*Gourps*	*f*	*%*
		113	28,2
Age	20-30	155	38,7
	31-40	94	23,4
	41-50	39	9,7
Total	51 +	401	100

Year of seniority	1-5	105	26,2
	6-10	87	21,2
	11-15	81	20,2
	15 +	128	31,9
Total		401	100
Type of school they work at	Primary school	146	36,4
	Secondary school	142	35,4
	High school	113	28,2
Total		401	100

When Table 1 is examined, it is seen that 113 of the teachers are between 20-30 (%28.2), 155 are between 31-40 (38.7%), 94 are between 41-50 (23.4%) and 39 are 51 years of age or older (9.7%). When the years of seniority of the teachers are examined, it is seen that 105 have 1-5 years (26.2%), 87 have 6-10 years (21.2%), 81 have 11-15 years (20.2%), 128 have 15 years and over and 128 have 128 (31.9%) years of seniority. When the types of schools the teachers work in are examined, it is seen that 146 (36.4%) are working in primary schools, 142 are working in secondary schools (35.4%), and 113 are working in high schools (28.2%).

Data Collection

Quantitative data collection tools were used in the study. Data were collected via a link sent to teachers. Data collection was carried out between October 2023 and March 2024.

Data Collection Instruments

In this study, which aimed to examine the relationship between teachers' individual creativity and their self-efficacy beliefs towards implementing the constructivist approach, 3 different measurement tools were used. These scales were the "Personal Information Form" developed by the researc5her, the "Organizational Creativity Scale" developed by Balay (2010) and the "Self-Efficacy Belief Scale for Implementing the Constructivist Approach" developed by Eskici & Özen (2013). Necessary permissions were obtained for the use of both scales. In this study, the "Personal Information Form" consisting of questions to determine the demographic status of the teachers participating in the study was used. Quantitative data was collected by the researcher using quantitative data tools. Detailed information about the scales used in this research is provided below.

Personal Information Form.

The personal information form prepared by the researcher included questions for the personal information of the teachers participating in the study to be used in the analysis of the data. These questions were: gender, age, graduation status, seniority year, and the type of school they worked at. The aim was to correlate and examine the answers given to these questions with the sub-dimensions of the scales.

Organizational Creativity Scale.

The organizational creativity scale was developed by Balay (2010). There are 3 sub-dimensions and 38 items in the scale. Items 1-16 measure the individual dimension, items 17-27 measure the administrative dimension, and items 28-38 measure the social dimension. In this study, 16 items belonging to the 16-item ''Individual Creativity'' dimension, which is a sub-dimension of the organizational creativity scale, were used. Other items were excluded from

the scope of the study. The scale is a 5-point Likert type. In the scoring of the scale, it was calculated as 1 point for strongly disagree, 2 points for strongly disagree, 3 points for disagree, 4 points for undecided, 5 for agree, and 5 for strongly agree. The lowest score that can be obtained from the scale is 38 and the highest score is 190.

Self-Efficacy Belief Scale for Implementing Constructivist Approach

The "Self-Efficacy Belief Scale for Implementing the Constructivist Approach" developed by Eskici & Özen (2013) in a five-point Likert form was used. As a result of the exploratory factor analysis conducted to determine the construct validity, it was determined that the scale consisted of four factors and 29 items; the four-factor structure was confirmed as a model with confirmatory factor analysis. The highest score that can be obtained from the scale is 145 and the lowest score is 29. The scale is a 5-point Likert-type.

Data Analysis

The data obtained in the study were analyzed using a statistical program. In order to determine the statistical methods to be used to examine the individual creativity and self-efficacy belief scores of the teachers, the normality test values of the scales were first examined to understand how the distribution was. It was understood that the variables did not show a normal distribution. The data obtained from the scales used in the research were analyzed on the computer using the Statistical Package Program. Arithmetic Mean, Standard Deviation, Kruskhal Wallis H, Correlation statistical techniques were used to analyze the data.

Ethics Board Approval

This study has ethical approval from Kırklareli University under the protocol number E-35523585-302.99-94006 on 23/08/2023.

Results

Individual Creativity and Self-Efficacy Towards Implementing the Constructivist Approach Levels of Teachers

The first sub-problem of the research was expressed as "What are the teachers' individual creativity levels and self-efficacy levels of teachers towards implementing the constructivist approach?" In order to find an answer to this problem, arithmetic mean and standard deviation analyses of the Individual Creativity and Teachers' Self-Efficacy Towards Implementing the Constructivist Approach Scales answered by the participants were conducted. The analysis results are shown in Table 2.

Table 2
Arithmetic Mean and Standard Deviation Values

Scale	*Number of Items*	*$\bar{x}$*	*SS*	*Item Averages ($\bar{x}$/ number of items)*
Individual Creativity Scale	16	64.90	8.77	4.06
Teachers' Self-Efficacy Towards Implementing The Constructivist Approach Scale	29	117.79	14.24	4.06

When Table 2 is examined, it is seen that teachers' individual creativity and self-efficacy beliefs towards implementing the constructivist approach are at a high level. ($\bar{x}$: 4.06) level.

Individual Creativity and Self-Efficacy Towards Implementing the Constructivist Approach Levels of Teachers by Age

The second sub-problem of the research sought to answer the question; "Do the teachers' individual creativity levels and self-efficacy levels of teachers towards implementing the constructivist approach differ significantly according to their age?" The findings obtained by performing the Kruskal Wallis H test for the Individual Creativity and Teachers' self-efficacy towards implementing the constructivist approach Scales are presented in Table 3.

Table 3

Kruskal Wallis H Test Values in Terms of Age Variable

Scale	*Age*	*N*	*Rank Average*	x^2	*Df*	*p*
Individual Creativity Scale	20-30	113	213,87	3.80	2	.284
	31-40	155	194,34			
	41-50	94	189,11			
	51+	39	218,65			
Teachers' Self-Efficacy Towards Implementing the Constructivist Approach Scale	20-30	113	208,27	5,827	3	.120
	31-40	155	203,78			
	41-50	94	178,00			
	51+	39	224,33			

According to Table 3, when the teachers' self-efficacy beliefs towards implementing the constructivist approach were examined in terms of age variable, it was seen that the age variable did not create a significant difference on the self-efficacy beliefs towards implementing the constructivist approach ($p>0.5$). The group with the highest score in the entire scale of teachers' self-efficacy beliefs towards implementing the constructivist approach was teachers aged 51 and over, while the group with the lowest score was teachers aged 41-50.

In light of the data in Table 3, when the individual creativity levels of teachers were examined in terms of age groups, no significant difference was found between their individual creativity ($p>.05$). In light of the data in the table, the individual creativity levels of teachers in the 51 and above age group were higher than those of teachers in other age groups. The group of teachers with the lowest individual creativity levels was teachers between the ages of 41 and 50.

Individual Creativity and Self-Efficacy Towards Implementing the Constructivist Approach Levels of Teachers by Year of Seniority

The third sub-problem of the research sought to answer the question "Do the teachers' individual creativity levels and self-efficacy levels of teachers towards implementing the constructivist approach differ significantly according to their year of seniority?" The findings obtained by performing the Kruskal Wallis H test for the Individual Creativity and Teachers' self-efficacy towards implementing the constructivist approach Scales are presented in Table 4.

Table 4

Kruskal Wallis H Test Values in Terms of Year of Seniority Variable

Scale	*Year of Seniority*	*N*	*Rank Average*	x^2	*df*	*p*
Individual Creativity Scale	1-5	105	204,09	1.722	3	.632
	6-10	87	203,45			
	11-15	81	186,08			
	15+	128	206,25			
Teachers' Self-Efficacy Towards Implementing The Constructivist Approach Scale	1-5	105	203,65	11.7	3	.098
	6-10	87	216,80			
	11-15	81	173,80			
	15+	128	205,44			

According to Table 4, when the individual creativity levels of teachers were examined in terms of the seniority year variable, it was seen that the seniority year variable did not create a significant difference in individual creativity (p>0.5). In light of the data in the table, the group with the highest individual creativity level was teachers who completed 15 years of seniority and above, while the group with the lowest was teachers who completed 11-15 years of seniority. (p<.05).

Individual Creativity and Self-Efficacy Towards Implementing the Constructivist Approach Levels of Teachers by Type of School They Work At

The fourth sub-problem of the research sought to answer the question "Do the teachers' individual creativity levels and self-efficacy levels of teachers towards implementing the constructivist approach differ significantly according to the type of school they work at?" The findings obtained by performing the Kruskal Wallis H test for the Individual Creativity and Teachers' self-efficacy towards implementing the constructivist approach Scales are presented in Table 5.

Table 5

Kruskal Wallis H Test Values in Terms of Type of School Working At

Scale	*Type of School Working At*	*N*	*Rank Average*	x^2	*df*	*p*
Individual Creativity Scale	Primary	146	199,22	,521	2	,771
	Secondary	142	197,60			
	High	113	207,57			
Teachers' Self-Efficacy Towards Implementing the Constructivist Approach Scale	Primary	146	208,45	1,092	2	,529
	Secondary	142	199,16			
	High	113	193,69			

According to Table 5, when the individual creativity levels of teachers were examined in terms of Type of School Working At variable, it was seen that Type of School Working At variable did not create a significant difference on individual creativity (p>0.5). In light of the data in the table, the group with the highest individual creativity level was teachers who worked at a high school, while the group with the lowest was teachers who worked at a secondary school. (p<.05).

When Table 5 is examined, no significant difference was found between the type of school they work at and the teachers' self-efficacy beliefs towards implementing the constructivist approach. (p>.05) However, it can be said that the self-efficacy beliefs towards implementing the constructivist approach of teachers working at primary schools are higher than those working at secondary and high schools. The group with the lowest belief in implementing the constructivist approach is the teachers working at high schools.

The Relationship Between Individual Creativity and Self-Efficacy Towards Implementing the Constructivist Approach Levels of Teachers

The fifth sub-problem of the research is " Is there a statistically significant relationship between teachers' individual creativity levels and self-efficacy levels of teachers towards implementing the constructivist approach?" Spearman-Brown Correlation Analysis was performed with the data obtained in order to search for an answer to the problem. The results are listed in Table 6.

Table 6

Spearman-Brown Test Values of the Relationship Between Teachers' Individual Creativity Levels and Self-Efficacy Levels of Teachers Towards Implementing the Constructivist Approach

		Self-Efficacy Levels of Teachers Towards Implementing the Constructivist Approach
Individual Creativity	Person Correlation	,574
	Sig. (2-tailed)	,000
	N	401

When Table 6 is examined, it is concluded that there is a significant, moderate and positive relationship between teachers' individual creativity and their self-efficacy beliefs towards implementing the constructivist approach in terms of r=0.574, (p<.05). Accordingly, it can be said that as individual creativity increases, self-efficacy will increase, and as self-efficacy increases, individual creativity will increase.

Discussion

In this section, the results of the research conducted to examine the relationship between teachers' individual creativity and their self-efficacy beliefs towards implementing the constructivist approach are discussed in the light of sub-problems. In order to measure the individual creativity levels of teachers, the "Individual Creativity Scale" was applied within the scope of the study. The study revealed that the individual creativity levels of teachers were high.

When the literature is examined, it is concluded that the creativity of science teachers is at a high level in the study conducted by Uçkan (2019), which is similar to this study. Similarly, the relationship between school innovation and individual creativity was examined in the study conducted by Yüner and Özdemir (2020) and it was found that the individual creativity levels of teachers were high. In the study conducted by Tetik (2021), the effect of teachers' perception of the learning organization on their individual creativity was investigated and it was found

that the individual creativity levels of teachers were high. In a similar study conducted by Meral and Tezel Şahin (2019) with preschool teachers, the individual creativity levels of teachers were found to be high. In the study conducted by Baloğlu (2020), it was concluded that the creativity levels of classroom teachers were high. In the study conducted by Çoban and İnan (2020), the individual creativity levels of preschool teachers were found to be high. In the study conducted by Bayındır and Zeteroğlu (2023), it was found that the individual creativity levels of preschool teachers were high. In addition to these, the results obtained in the studies conducted by Kesici (2023), Bramwell et al., (2011), Kasirer and Shnitzer Meirovich (2021) also found that the individual creativity levels of teachers were high and are similar to the results of this study. However, it is seen that there are also studies in the literature that concluded that the individual creativity levels of teachers are not high. In the study titled "Evaluation of the Relationship Between Primary School Teachers' Creativity Levels and Democratic Attitudes" conducted by Kurnaz (2011), it was concluded that teachers' individual creativity levels were low. Similarly, in the study conducted by Polat and Kontaş (2018) with classroom teachers, it was concluded that teachers' individual creativity levels were low. In addition, in the study conducted by Ulusoy Yılmaz and Yıldız (2019) with teachers, it was concluded that teachers' individual creativity levels were low. In addition, as a result of the literature review conducted in different countries, it was seen that Lapėnienė and Bruneckienė (2010) with physical education teachers also concluded that teachers' creativity levels were low.

Based on the results of this study, it can be interpreted that teachers have high individual creativity levels. It is an important point in terms of education that teachers, who are at the center of education, implementers of curriculum and guides of future generations, have high creativity levels. Teachers, who are in a position to contribute to the development of the education and culture level of society, are open to innovations and continuous learning, which allows them to keep up with the society they are in and adapt their students. In this case, it can be thought that teachers can be role models. If the individual creativity level is high, teachers can provide opportunities for students to develop their talents and help them think critically and differently. Starting from primary school, where basic education begins, students are supported to become constructive and creative individuals by taking them out of the usual rote learning system. When it is considered that the first step to ensure students think creatively is taken in preschool and primary school and can increase day by day in the following school years, it can be said that creativity skills are important for teachers who have this skill at a high level.

In order to measure the self-efficacy beliefs of teachers towards implementing the constructivist approach, the "Self-Efficacy Belief Scale for Implementing the Constructivist Approach" was applied to the teachers within the scope of the study. The study revealed that the teachers' self-efficacy belief levels towards implementing the constructivist approach were high. In parallel with the results of this study, the study conducted by Kaya (2013) concluded that the self-efficacy of classroom teachers towards implementing the constructivist approach was high. Similarly, in the study conducted by Uçkan (2019) with science teachers, it was concluded that the teachers considered themselves competent in implementing the constructivist approach and their scores were high. In the study conducted by Fidan and Duman (2014) with classroom teachers, it was found that the teachers' self-efficacy belief levels towards implementing the constructivist approach were high. In the study conducted by Çınar and Şahin Taşkın (2020), it was concluded that the self-efficacy beliefs of classroom teachers

towards implementing the constructivist approach were high. In the study conducted by Hwang et al. (2020), it was found that the self-efficacy belief levels of primary school mathematics teachers working in Korea towards implementing the constructivist approach were high. Similarly, according to the results obtained in the study titled "Examination of Teachers' Self-Efficacy Beliefs Towards Implementing the Constructivist Approach" conducted by Güven and Genç (2024), the self-efficacy beliefs of teachers towards implementing the constructivist approach were found to be high. It can be interpreted that teachers' self-efficacy belief levels towards implementing the constructivist approach are high. It is a very important point in terms of education that teachers, who are the implementers of the curriculum, have high self-efficacy belief levels towards the approach they implement. It can be said that teachers' scores are at a high level due to their adoption of the program they implement and their perception of themselves as competent in this regard.

When the individual creativity levels of teachers were examined according to the age variable, no significant difference was found in the overall individual creativity scale. It was concluded that the individual creativity scores of teachers aged 51 and over were higher than those of teachers in the 20-30, 31-40, and 41-50 age groups. It was found that the age group with the lowest creativity scores was teachers aged 41-50. In the study conducted by Meral and Tezel Şahin (2019), it was concluded that there was no significant difference between the creative thinking tendencies of preschool teachers and the age variable. Similarly, as a result of the study conducted by Çoban and İnan (2020) with preschool teachers, no significant difference was found between creativity and the age variable. In the study conducted by Pehlivan (2019) with classroom teachers, no significant difference was found between creativity and the age variable. In addition, studies conducted by Burak and Atabek (2023), Jaussi and Randel (2014) also concluded that there is no significant relationship between teachers' individual creativity and the age variable. As a result of the overlap between the results of this study and most of the studies in literature, it can be said that there is no relationship between teachers' individual creativity and their age. When the results obtained in this study and other studies in literature are considered, it has been concluded that there is no significant difference between teachers' individual creativity and the age group. When creativity skill is evaluated as different perspectives brought to the solution of problems and continuing from the moment people start expressing themselves until their death, it can be considered as a skill that should be possessed at a similar level in every age group. Individuals with creativity skills will always be open to development, change and learning new things regardless of their age. However, according to the results of the research, the high scores of teachers aged 51 and over can be interpreted as their desire to follow the technological developments they are involved in more closely and seeing themselves equipped in terms of professional competence. Since the sample group of the study includes individuals aged 20 and above, it can be said that the study was conducted with an adult age group. Creativity is a cognitive feature. When the theories related to cognitive development are considered, it is seen that individuals aged 18 and above fit the adult classification (Aslan & Köksal Akyol, 2007). Since the sample group of the study is in the same group in terms of cognitive development, it can be thought that no significant difference was reached in terms of age variable in individual creativity levels.

Considering the results obtained in this study and other studies in literature, it was concluded that there was no significant difference between the self-efficacy beliefs of teachers towards implementing the constructivist approach and the age variable. Since the

constructivist approach is the approach taken as the basis for the implementation of curriculum, it can be considered as a skill that should be possessed at a similar level in every age group. It can be said that individuals who have a self-efficacy belief in a skill are individuals who are self-confident and find themselves sufficient. However, according to the results of the research, the high scores of teachers aged 51 and over may be due to the fact that teachers in this age group see themselves as sufficient due to working for many years or that they think they are professionally experienced. Professional experience is defined as the knowledge, skills and attitudes that must be possessed while practicing a profession (Yenen, 2022). In professional experience, the field knowledge that each individual has regarding their own profession and the process of transferring this knowledge into practice are also important. In the teaching profession, a teacher's competence in all subjects related to their field and correctly conveying these subjects with certain methods and techniques during the teaching process can be considered as professional experience. This experience can also be considered as a competence that will develop over time, and the high scores of teachers aged 51 and over can be associated with their professional experience.

When the individual creativity levels of teachers were examined in terms of the seniority variable, it was seen that there was no significant difference in the entire individual creativity scale, but although there was no significant difference, it was concluded that the scores of teachers with 15 years of seniority and above were higher than the average scores of teachers with 1-5, 6-10, 11-15 years of seniority. Similar studies are found in literature. In the study conducted by Gürel and Arslan (2023), where the creative thinking skills of preschool teachers were examined in terms of various variables, no significant difference was found between the individual creativity of teachers and the seniority variable. In the study conducted by Kalafat (2012) with secondary school teachers, it was concluded that there was no significant difference between the individual creativity of teachers and the seniority variable. In the study conducted by Altıntaş Yüksel (2019) with classroom teachers, no significant difference was found between professional creativity and the seniority variable. In the study conducted by Tan (2022), it was concluded that there was no significant difference between the individual creativity of teachers and the seniority variable. Unlike this study, Ng et al. (2013) conducted a study examining creativity-related behaviors based on age and tenure, and concluded that teachers with fewer years of seniority had significantly higher creativity skills than teachers with more years of seniority. Within the scope of the study, it was concluded that teachers' individual creativity levels did not differ according to years of seniority. It was concluded that the scores teachers received from the individual creativity scale created differences between years of seniority. When the scores were examined, teachers with 15 years of seniority and above saw themselves as more creative than teachers with other years of seniority. The group with the lowest scores was teachers with 11-15 years of seniority. In light of these findings, it can be said that teachers with 15 years of seniority and above saw themselves as sufficient and creative in terms of professional competence and knowledge. Teachers with 11-15 years of seniority can be considered to be in a period of stagnation against productivity according to Erikson's (1968) psychosocial development theory before retirement, and therefore routine work can be considered difficult. Considering that even creative and productive individuals can sometimes experience stagnation and a feeling of inefficiency during this period, the findings obtained in the study can be interpreted in this way.

When the self-efficacy beliefs of teachers for implementing the constructivist approach were examined in terms of the seniority variable, it was concluded that there was no significant difference in the entire self-efficacy belief scale. The scores of teachers with 11-15 years of professional experience were found to be lower than the scores of teachers who had been working for 1-5, 6-10, and had 15 years or more of seniority. Many studies conducted with teachers have been found in the literature regarding whether the self-efficacy beliefs of teachers for implementing the constructivist approach differ in terms of the seniority variable. When the studies in literature are examined, it is also found that there are studies that are similar to this study. In the study conducted by Özdemir and Kıroğlu (2011), it was concluded that there was a significant difference between the knowledge levels of classroom teachers with 0-5 years of seniority and the knowledge levels of classroom teachers with 21-25 years of seniority in favor of teachers with 21-25 years of seniority. In the study conducted by Koç (2013), in which the self-efficacy of classroom teachers and their skills in creating a classroom environment for implementing the constructivist approach were examined, it was concluded that there was a significant difference between self-efficacy and the seniority variable. The self-efficacy beliefs of classroom teachers with 6-10 years of seniority regarding classroom management were found to be higher than the self-efficacy beliefs of classroom teachers with 16-21 years of seniority; the self-efficacy beliefs of classroom teachers with 6-10 years of seniority regarding classroom management were found to be higher than the self-efficacy beliefs of classroom teachers with 26 and above years of seniority regarding classroom management; the self-efficacy beliefs of classroom teachers with 21-25 years of seniority regarding classroom management were found to be higher than the self-efficacy beliefs of classroom teachers with 16-20 years of seniority regarding classroom management. Karaşahin and Kahyaoğlu (2011) examined teachers' self-efficacy beliefs and the seniority variable and concluded that there was a significant difference between teachers with 26 and more years of professional seniority and teachers with 1-5 years of professional seniority in favor of teachers with 26 and more years of professional seniority. In the study conducted by Coşkun (2012), as a result of examining the constructivist method competencies of religious culture teachers in terms of various variables, it was concluded that although the general constructivist method competency levels of religious culture and ethics teachers did not differ significantly depending on the seniority variable, it differed significantly in the "teaching planning" sub-dimension between teachers with 11-15 and 16-20 years of professional seniority in favor of 16-20 years of seniority; and between teachers with 16-20 and 26 and more years of professional seniority in favor of 26 and more years of seniority. According to the results of the study conducted by Güven and Genç (2024), it was found that teachers with 21 years of seniority and above had higher averages in all sub-dimensions and total scores in terms of seniority variable. A significant difference was found between the seniority variable and the sub-dimensions of the scale, guiding and activating students, and the total score of the scale; no significant difference was found in the sub-dimensions of encouraging thinking with alternative assessment. In the "Guiding" dimension, teachers with 21 years of seniority and above received higher scores than those with 11-20 years of seniority. In the "Student Activation" sub-dimension, it was concluded that teachers with 21 years of seniority and above received higher scores than those with 11-20 years of seniority and 0-10 years of seniority. As a result of the study, it was concluded that there was no significant difference in the self-efficacy belief scale in terms of teachers' self-efficacy beliefs towards implementing the constructivist approach and the year of seniority variable. The self-efficacy belief scores of teachers who have completed 11-15 years of seniority

were found to be lower than those of other seniority groups. The low scores of teachers in this age group can be interpreted as being before retirement and therefore seeing their own self-efficacy low and losing their knowledge of concepts and practices related to the constructivist approach. The reason for the high scores of teachers who have completed 6-10 years of professional experience can be thought to be that they have recently acquired knowledge of concepts and practices related to the constructivist approach and are closer to implementing this approach, as well as being accustomed to the profession and being at the beginning of the profession.

When the individual creativity levels of teachers were examined in terms of the school type variable, it was seen that there was no significant difference in the entire individual creativity scale, but even though there was no significant difference, it was concluded that the creativity level scores of high school teachers were higher than the scores of primary and secondary school teachers. When the studies in the literature were examined, it was seen that there were studies examining individual creativity according to school type. The scale titled "Teachers' Perceptions of Creative Teaching and Classroom Practices", made by Gülözer and Alpan (2023) was applied to high school teachers, and it was seen that the individual creativity of high school teachers differed in terms of the school type variable. It was concluded that the creative teaching perceptions of teachers working in Social Sciences high schools were at a higher level compared to Imam Hatip High School teachers. Different from this study, studies are in the literature such as Saraniero et al. (2014); Lee and Kemple (2014); Kim et al. (2015); Ölçer and Aşıkoğlu Özdemir (2018); Arslan (2019). In the study conducted by Yılmaz and Güven (2019), a significant difference was found between the individual creativity level scores of primary school teachers and the individual creativity level scores of teachers working at other levels. It was concluded that the individual creativity of primary school teachers was significantly higher than that of teachers working in secondary and high schools. In contrast to these studies, the study conducted by Berkant and Burun (2021) examined the individual creativity levels of teachers and the type of school they worked in, and it was concluded that the individual creativity of teachers working in secondary schools was significantly higher than that of high school and primary school teachers. Within the scope of the study, it was concluded that the individual creativity levels of teachers did not differ according to the type of school they worked in, but there were differences between the types of schools they worked in terms of scores. It was concluded that the individual creativity level scores of high school teachers were higher than the scores of primary and secondary school teachers, and the lowest score belonged to secondary school teachers. Based on this information, it can be thought that high school teachers should design materials in more creative ways and manage the educational processes with a different process for high school students who are in the abstract operations period and trying to acquire skills such as scientific thinking, reasoning, abstract thinking, metacognition, hypothetical thinking, and analogy. It can be thought that the reason for the low scores of middle school teachers is that the students at this level are in the concrete operations period and the activities that teachers do in their classes appeal to a lower level of creativity.

In order to measure the relationship between teachers' individual creativity and their self-efficacy beliefs towards implementing the constructivist approach, the "Individual Creativity Scale and the "Self-Efficacy Belief Scale for Implementing the Constructivist Approach" were applied within the scope of the study. As a result of the analysis, it was concluded that there was a significant, moderate and positive relationship both in the sub-dimensions and in the

overall total of the scale. Accordingly, it can be said that as individual creativity increases, self-efficacy will increase, and as self-efficacy increases, individual creativity will increase. It is seen that there is no study examining these two variables in literature. Individual creativity is characterized as a skill that individuals bring to the world as a potential power from birth and which they can or cannot reveal later with certain factors. When this skill is considered as practical, different and personal solutions to problems in human life, it is very important for individuals. Individuals with individual creativity skills see, discover, design and apply what is different from others in their minds. Individual creativity can be considered as a skill that teachers who work together with more than one student with individual differences in the field of education should also have. Designing education and training, using teaching methods and techniques, ensuring that information is learned by actively participating in the student through various approaches, requires the teacher to use creativity skills appropriately and correctly. The teacher's attempt to reveal the potential creativity within the student by using individual creativity skills also shows the importance of this skill. Another important issue other than individual creativity can be considered as teachers' self-efficacy beliefs towards the implemented curriculum. Curricula developed based on the constructivist approach are considered as an approach based on actively including students in the educational processes and creating individual learning schemes. In this approach, which is different from the traditional rote-learning system, both the level of teachers' self-efficacy beliefs towards the constructivist approach they apply and their use of their individual creativity during the implementation phase are considered as two interrelated issues. When these two issues in the study are considered in connection with each other, the conclusion that they will affect each other is revealed by the research findings. In the literature review, no studies were found examining the relationship between teachers' individual creativity and their self-efficacy beliefs towards implementing the constructivist approach. As a result of the analysis, it was concluded that there is a significant, moderate and positive relationship between the sub-dimensions and the total of the scale. According to this result, it can be said that as individual creativity increases, self-efficacy will increase, and as self-efficacy increases, individual creativity will increase.

Conclusion and Implications

Based on the findings obtained, it was concluded that the teachers' individual creativity and self-efficacy beliefs towards applying the constructivist approach are at a high level. The individual creativity of the teachers did not differ according to age, seniority year, and the type of school where they are working at. It has been concluded that the teachers' self-efficacy beliefs towards applying the constructivist approach are at a high level. While teachers' self-efficacy beliefs about applying the constructivist approach did not differ in terms of age, type of working, or seniority year variable. It has been concluded that the relationship between teachers' individual creativity and self-efficacy beliefs aimed at implementing the constructivist approach is at a significant level in terms of total score and sub-dimension scores, at a high level and in a positive direction in general.

Recommendations

According to the results obtained, it was determined that individuality was at a high level. In order to evaluate this positive situation, it can be suggested to enrich the activities that will develop the creativity of the educational programs that are changing in educational environments. According to the obtained results, the high storage of individual creativity and the processing of it in this way, using it to design in-class activities and a product output section that emerges at the end of this process.

According to the findings obtained in this research, teachers aged 51 and over and teachers with 15 years and more seniority, who have individual talents, and players with higher rates than other players. Based on this finding, teachers aged 51 and over working in the National Education and players with 15 years and more seniority can be directed by activities and training where they will present treatment innovations. The characteristics of other age groups are also planning in-class activities where you can use your talents.

Based on the finding that teachers' self-efficacy beliefs towards implementing the constructivist approach were found to be high in this study, it can be suggested that educational environments be designed in accordance with the constructivist approach.

Based on the finding that teachers aged 51 and over had the highest self-efficacy beliefs towards implementing the constructivist approach, teachers aged 41-50 had the lowest scores, and teachers with 6-10 years of seniority had significantly higher self-efficacy belief scores towards implementing the constructivist approach than teachers with 11-15 years of seniority, it can be suggested that working individuals experience burnout after a certain age, have a negative attitude towards the profession, or worry about not being able to keep up with the updated curriculum and the era and their inadequacy of knowledge, and therefore, self-efficacy decreases. Therefore, it can be suggested that lifelong learning activities outside of school be organized for certain age groups, or teachers can be provided with in-service training to refresh their professional knowledge.

Author Contributions

-The first author has made substantial contributions to the conceptualization and research design, data collection, or analysis and interpretation of the data,

-The second author has been involved in drafting the manuscript or revising it, critically for a significant intellectual content.

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The text should be single-spaced and justified, as well as it should be written in size 11 and Segoe UI Font. This section should not include sub-headings. Acknowledgment may be given to the persons or institutions contributing to the manuscript. Acknowledgements should be added after acceptance.

Declarations

Ethical Approval and Informed Consent

This study was approved by Kırklareli University Institutional Ethical Review Board. All procedures in this study were conducted in accordance with Kırklareli University Institutional Review Board's approved protocols. Written informed consent was obtained from the participants for their anonymized information to be published in this article.

Supplemental Material

Supplemental material for this paper is available online.

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TÜRKÇE GENİŞ ÖZET

Öğretmenlerin Bireysel Yaratıcılıkları ile Yapılandırmacı Yaklaşımı Uygulamaya Yönelik Öz Yeterlik İnançları Arasındaki İlişkinin İncelenmesi

Giriş

Gün geçtikçe yaşanan gelişmeler bireyin niteliklerinde de beklentiler doğurmuştur. Bu nitelikler de yaratıcılık, öğrenmeyi öğrenme, eleştirel düşünme, empati kurma, kendini gerçekleştirme gibi bireye özgü becerileri içermektedir. Bireylerde istenen bu becerileri geliştirmenin yolu da eğitimin yapılma şekli ile ilişkilidir (Jia, 2010). Bu nedenle eğitimin nasıl yapılması ve nelerin değişmesi gerektiği tartışılan bir nokta olmuştur. Eğitim süreci bilginin doğrudan aktarıldığı, öğrencinin sadece dinleyici olduğu ve öğrencilerin uygulama sürecinin ihmal edildiği ve bir süre sonra kendi başına düşünmeyi reddettiği geleneksel yaklaşımdan uzaklaşarak öğrencinin aktif olduğu, yaparak yaşayarak öğrendiği çağdaş bir yaklaşıma doğru evrilmiştir. Bu yaklaşım ile birlikte bireyin durağan kalması neredeyse imkansızlaşmış ve belirli bir dinamizde hareket etme gerekliliğini doğurmuştur. Bu hızlı hareket, eğitimde geleneksel yaklaşımların geride bırakılıp yeni yaklaşımların tercih edilme gereksinimini ortaya çıkarmıştır (Erdamar Koç ve Demirel, 2008).

Eğitim sisteminde öğrenenin en donanımlı şekilde yetiştirilmesi eğitimin başlıca hedefidir (Berner, 2013). Bu hedefle birlikte anlatılacak olan konu belirlenir ve bu doğrultuda dersin kapsamı çizilir. Dersin kapsamının çizilmesinden sonra öğrenme, öğretme sürecinin planlaması yapılır. Tüm bu işlemler gerçekleştikten sonra nasıl ve ne kadar etkili bir eğitim yapıldığını belirlemek üzere değerlendirme süreçleri tasarlanır böylece bir eğitim programı geliştirilmiş olur. Ülkelerin eğitim programları yetiştirilmesi istenen bireyde bulunması gereken özelliklere göre güncellenmektedir. 2005 yılı öncesi davranışçı yaklaşım Türkiye'de eğitim sisteminde etkili olan yaklaşımdı. Bu yaklaşım doğrultusunda öğrenci pasif konumdaydı, öğretmen dersi anlatan, öğrenci ise dersi dinleyen konumdaydı. Yapılandırmacı yaklaşım ile birlikte öğrencilerin eleştirel, yaratıcı düşünme, empati yapma gibi üst düzey düşünme becerileri önemsenmeye başlandı (Özden, 2013). Toplumda sürekli ifade edilen belirli kalıplar da (eskiye alışma yeniyi reddetme, kendini geliştirmeme ve öz farkındalığa sahip olmama) yaratıcılık ve bireyin öz yeterlik inançlarının engelleri olarak görülebilir. Bu çalışmada da yüksek olan becerilerin kullanılamama ve programlara aktarılamama nedenleri bu engeller olarak düşünülebilir. Öğretmenin ve eğitim programlarının bu içeriklerden mahrum kalması ve öğrenciyi bireysel

olarak yönlendirememesi de bu becerilerin körelmesine neden olabilir. Yapılandırmacı yaklaşımı benimseyen bir eğitim programının başarılı olması için, programın uygulayıcısı öğretmenlerin bu yaklaşımı bireysel yaratıcılıklarını kullanarak nasıl uyguladığı ve bu programa karşı öz yeterlik inançları da birbirleri ile çok yakın ilişki içinde bulunan iki kavram olduğundan dolayı bu araştırmanın konusu olarak seçilmiştir. Bu araştırmada öğretmenlerin bireysel yaratıcılıkları ile yapılandırmacı yaklaşımı uygulamaya yönelik öz yeterlik inançları arasındaki ilişkinin incelenmesi amaçlanmıştır.

Araştırmanın problem cümlesi "Öğretmenlerin bireysel yaratıcılıkları ile yapılandırmacı yaklaşımın uygulanmasına ilişkin öz yeterlilik inançları arasında bir ilişki var mıdır?" şeklindedir. Bu problem doğrultusunda araştırmada aşağıdaki sorulara yanıt aranmıştır.

1- Öğretmenlerin yapılandırmacı yaklaşımı uygulamaya yönelik öz yeterlilik düzeyleri ve bireysel yaratıcılık düzeyleri nelerdir?
2- Öğretmenlerin yapılandırmacı yaklaşımı uygulamaya yönelik öz yeterlilik düzeyleri ve bireysel yaratıcılık düzeyleri yaşlarına göre anlamlı bir şekilde farklılaşmakta mıdır?
3- Öğretmenlerin yapılandırmacı yaklaşımı uygulamaya yönelik öz yeterlilik düzeyleri ve bireysel yaratıcılık düzeyleri kıdem yıllarına göre anlamlı bir şekilde farklılaşmakta mıdır?
4- Öğretmenlerin yapılandırmacı yaklaşımı uygulamaya yönelik öz yeterlilik düzeyleri ve bireysel yaratıcılık düzeyleri çalıştıkları okul türüne göre anlamlı bir şekilde farklılaşmakta mıdır?
5- Öğretmenlerin yapılandırmacı yaklaşımı uygulamaya yönelik öz yeterlilik düzeyleri ve arasında bireysel yaratıcılık düzeyleri istatistiksel olarak anlamlı bir ilişki var mıdır?

Yöntem

Araştırmada ilişkisel tarama yöntemi kullanılmıştır. 2023-2024 eğitim-öğretim yılında Kırklareli İl Milli Eğitim Müdürlüğüne bağlı okullarda görev yapan 3100 öğretmen, araştırmanın evreni olarak belirlenmiştir. Gerekli izinlerin alınmasının ardından Kırklareli il ve ilçelerinde bulunan tüm okullara resmi yazı gönderilmesi veya buralarda görev yapan öğretmenlere e-posta yöntemiyle ulaşılarak 401 kişilik örneklem grubuna ölçek uygulaması yapılmıştır. Veri toplama aracı olarak, Kişisel Bilgi Formu, "Örgütsel Yaratıcılık Ölçeği" ile "Öğretmenlerin Yapılandırmacı Yaklaşımı Uygulamaya Yönelik Öz Yeterlik İnanç Ölçeği" kullanılmıştır. Elde edilen veriler istatistik paket programına aktarılmıştır. Değişkenlerden elde edilen sonuçlarla uygun olacak şekilde, Mann Whitney U testi, Kruskal Wallis H testi ve Spearman-Brown Korelasyon Analizi yapılmıştır.

Bulgular

Öğretmenlerin bireysel yaratıcılık düzeylerinin yüksek olduğu sonucuna ulaşılmıştır. Öğretmenlerin bireysel yaratıcılıkları yaş, kıdem yılı, görev yapılan okul türü değişkenlerine göre farklılık göstermemiştir. Öğretmenlerin yapılandırmacı yaklaşımı uygulamaya yönelik öz yeterlik inançlarının yüksek düzeyde olduğu sonucuna ulaşılmıştır. Öğretmenlerin yapılandırmacı yaklaşımı uygulamaya yönelik öz yeterlik inançları yaş, görev yapılan okul türü ve kıdem yılı açısından farklılık göstermemiştir. Öğretmenlerin bireysel yaratıcılıkları ile yapılandırmacı

yaklaşımı uygulamaya yönelik öz yeterlik inançları arasındaki ilişkinin toplam puan ve alt boyut puanları açısından anlamlı düzeyde, genel olarak yüksek düzeyde ve pozitif yönde olduğu sonucuna ulaşılmıştır.

Tartışma

Literatür incelendiğinde bu çalışmaya benzer şekilde Uçkan (2019) tarafından yapılan çalışmada da fen bilimleri öğretmenlerinin yaratıcılıklarının yüksek düzeyde olduğu sonucuna ulaşılmıştır. Benzer şekilde Yüner ve Özdemir (2020) tarafından yapılan çalışmada okul yenilikçiliği ile bireysel yaratıcılık arasındaki ilişki incelenmiş ve öğretmenlerin bireysel yaratıcılık düzeylerinin yüksek olduğu bulunmuştur. Tetik (2021) tarafından yapılan çalışmada ise öğretmenlerin öğrenen örgüt algılarının bireysel yaratıcılıkları üzerindeki etkisi araştırılmış ve öğretmenlerin bireysel yaratıcılık düzeylerinin yüksek olduğu bulunmuştur. Meral ve Tezel Şahin (2019) tarafından okul öncesi öğretmenleri ile yapılan benzer çalışmada öğretmenlerin bireysel yaratıcılık düzeylerinin yüksek olduğu bulunmuştur. Baloğlu (2020) tarafından yapılan çalışmada sınıf öğretmenlerinin yaratıcılık düzeylerinin yüksek olduğu sonucuna ulaşılmıştır. Çoban ve İnan (2020) tarafından yapılan çalışmada ise okul öncesi öğretmenlerinin bireysel yaratıcılık düzeylerinin yüksek olduğu bulunmuştur.

Bireysel yaratıcılık arttıkça öz yeterliliğin artacağı, öz yeterlilik arttıkça bireysel yaratıcılığın artacağı söylenebilir. Literatürde bu iki değişkeni inceleyen bir çalışmanın olmadığı görülmektedir. Bireysel yaratıcılık, bireylerin doğuştan potansiyel bir güç olarak dünyaya getirdikleri ve sonradan belirli etkenlerle ortaya çıkarabildikleri veya çıkaramadıkları bir beceri olarak nitelendirilmektedir. Bu beceri, insan yaşamındaki sorunlara pratik, farklı ve kişisel çözümler olarak düşünüldüğünde bireyler için oldukça önemlidir. Bireysel yaratıcılık becerisine sahip bireyler, başkalarından farklı olanı zihinlerinde görür, keşfeder, tasarlar ve uygularlar. Bireysel yaratıcılık, eğitim alanında bireysel farklılıkları olan birden fazla öğrenciyle bir arada bulunan öğretmenlerin de sahip olması gereken bir beceri olarak düşünülebilir.

Sonuç ve Öneriler

Bu çalışmada elde edilen sonuçlara göre öğretmenlerin bireysel yaratıcılık düzeylerinin yüksek olduğu belirlenmiştir. Bu pozitif durumun değerlendirilebilmesi için eğitim ortamlarında uygulanacak olan eğitim programlarının yaratıcılığı geliştirecek etkinliklerle zenginleştirilmesi önerilebilir. Bu çalışmada elde edilen sonuçlara göre bireysel yaratıcılıkları yüksek olan öğretmenlerin bu becerilerin kullanarak sınıf içi etkinlikler tasarlaması ve bu sürecin sonunda ortaya bir ürün çıkması sağlanabilir.

Bu araştırmada elde edilen ilkokul öğretmenlerinin yapılandırmacı yaklaşımı uygulamaya yönelik öz yeterlik inançlarının diğer kurumlarda görev yapan öğretmenlere göre yüksek bulunmasının nedeni ortaokul ve lisede eğitimin merkezi sınavlara odaklı bir şekilde gerçekleştirilmesinden kaynaklı olabilir. Buradan yola çıkılarak ortaokul ve lisede merkezi sınav odaklı eğitimden uzaklaşılması gerektiği önerilebilir.