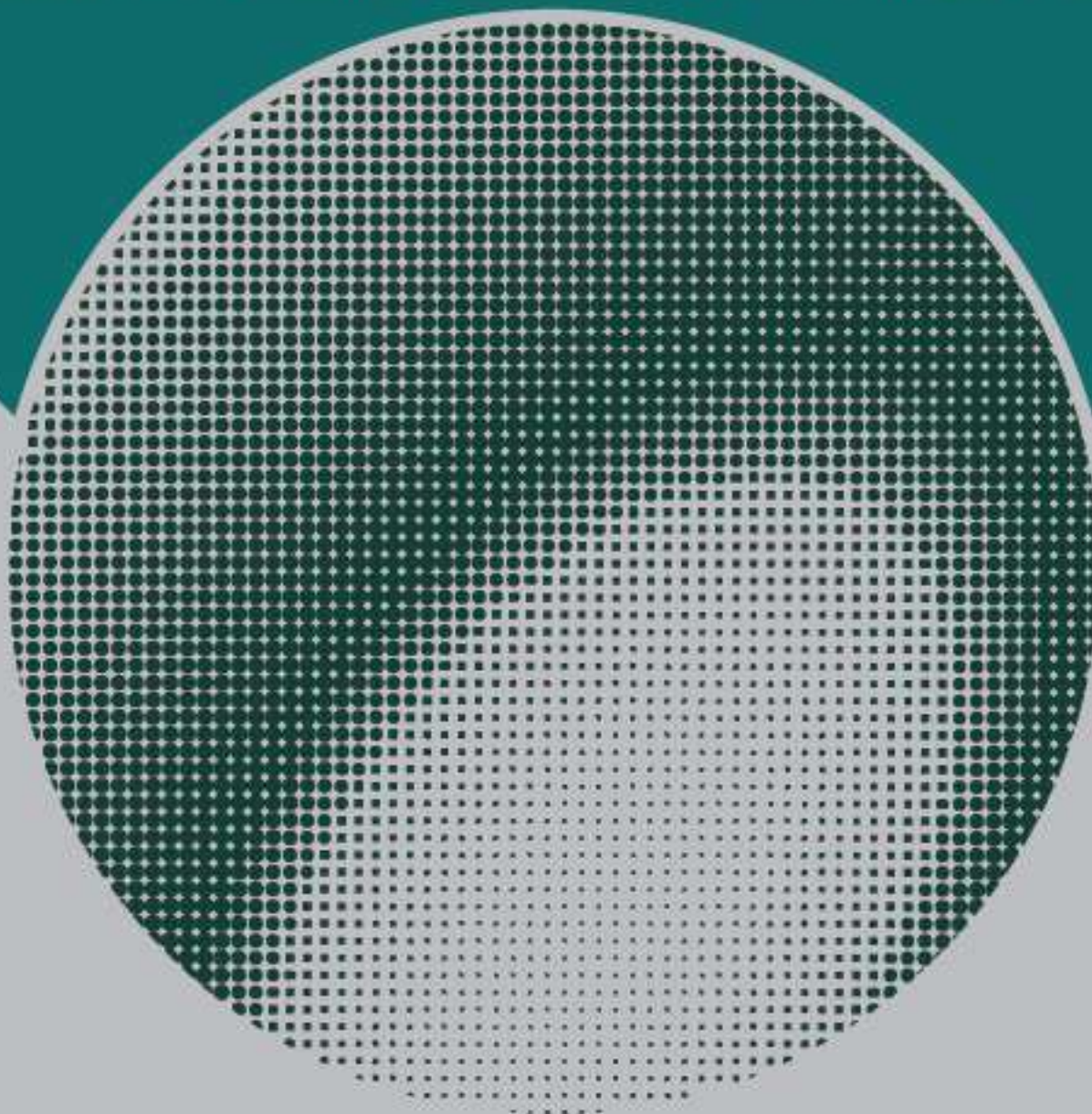


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Table of Contents

Sıla Nalbant and Selma Deneme Gençoğlu

The Relationship between the Autonomy of Turkish EFL Teachers and Their Professional Burnout 134-146

Kuswanto Kuswanto and Neneng Anjarwati

The Role of Accounting Learning in Forming Financial Attitudes and Its Contribution to the Level of Financial Management of Bidikmisi Students 147-157

Hülya Gülay-Ogelman, İlkay Göktaş and Döne Kahveci

Examination of the Relationship between Self-Compassion Levels of Preschool Period Children's Mothers and Children's Loneliness 158-172

Gülşah Yalçın and Serdar Yavuz

A Phenomenological Study on the Difficulties of Ukrainian Immigrants in Learning Languages 173-186

Arzu Doğanay Bilgi, Eylem Dayı and Çetin Toraman

Response to Intervention: A Bibliometric Mapping 187-204

The Relationship between the Autonomy of Turkish EFL Teachers and Their Professional Burnout

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Abstract

The aim of this study is to analyze the correlation between teacher autonomy and teacher burnout in a Turkish context. For this study, a correlational research design was used, and the data were collected via the Teacher Autonomy Scale by Pearson and Hall (1993) and the Teacher Burnout Scale by Seidman and Zager (1986-1987). 100 Turkish EFL teachers who teach at high school level in public or private institutions in the center of Edirne and its districts, Uzunköprü, Havsa, İpsala, and Keşan, were chosen as the sample for the study. The findings displayed that the participants had a low level of teacher autonomy and a moderate level of teacher burnout. The participants had a slightly higher curriculum autonomy than general autonomy. All the subcategories of the Teacher Burnout Scale showed moderate levels of teacher burnout. The highest mean was observed in the attitudes towards students subscale, and the lowest mean was observed in the career satisfaction subscale. When it comes to the correlation between teacher autonomy and teacher burnout, the findings revealed that teacher burnout was significantly, inversely, and moderately correlated with teacher autonomy.

Keywords: Correlational research design, EFL teachers, Teacher attitude, Teacher autonomy, Teacher burnout

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Introduction

The globalization of the world made learning a second language necessary to be a part of it. As the significance of teaching became more apparent, various factors affecting teachers' professional lives have also become the subjects of research. The term autonomy can be defined as "the right of an organization, country, or region to be independent and govern itself" and "the ability to make your own decisions without being controlled by anyone else" (The Cambridge Dictionary, 2023). Additionally, Kamii (1984) described autonomy as the ability to be self-ruled. She believed that autonomy had a huge role in education. Learner autonomy is a widely known phenomenon in the field of education. Benson and Voller (2014) suggests that the term is used in various ways in education such as "learners being able to gain knowledge by themselves", "learners being responsible for their own learning journey", "learners possessing the right to managing their own learning processes" and "learners possessing skills that can be used for self-directed learning". The current study focuses on teacher autonomy, which is as important as learning autonomy, but is a less-researched area of research in education. Teachers should be more aware of their own autonomy as teachers to promote autonomy for their students' learning.

Another focus of the study is a phenomenon that existed in the minds of the public for a long time before it was recognized as the phenomenon it is today, called burnout. Burnout as a term was coined by Freudenberger (1974), who came up with it after observing the working conditions of the staff working in free clinics. Based on those observations, Freudenberger described burnout as a kind of symptom born out of long-term emotional exhaustion and loss of engagement regarding one's job (as cited in Chang, 2009). Teaching is a highly demanding job that can cause a lot of work-related stress. Various factors, such as lack of control over the material and curriculum, lack of freedom inside and outside the classroom, administrative and collegial problems, and class environment, can cause teacher burnout.

The present study examines the correlation between teacher autonomy and teacher burnout through the lens of a Turkish context. The relationship between teacher autonomy and teacher burnout is not a subject that has just begun to be wondered about. It has become more common to encounter teacher burnout where teacher autonomy is mentioned, and vice versa, especially in the last few decades. However, it has been especially around the last twenty years that the relationship between these two phenomena began to become the focus of studies, thus studies that examine this relationship is still scarce (Esfandiari & Kamali, 2016; Gavriluk et al., 2013; Javadi, 2014; Koçak, 2018; Pearson & Moomaw, 2005). This study will add to the literature by focusing on a Turkish context.

Teacher Autonomy

Teacher autonomy has been defined by many scholars throughout the world, but there isn't a description that all researchers agree with in its entirety. Frase and Sorenson (1992) argue that teacher autonomy can be perceived individually: One teacher may perceive autonomy as an instrument to be free from supervision and another may perceive it as a chance to establish relationships with their colleagues to achieve projects that go beyond the classroom (as cited in Buğra & Atay, 2020). Little (1995) suggests that autonomous teachers tend to be successful because they constantly self-reflect and therefore are aware of their own teaching processes. They also possess a deep sense of responsibility when it comes to their teaching. Similarly, Teng (2019) describes an autonomous teacher as someone who constantly self-reflects on their teaching process and thinks that various individual, organizational, transactional factors, and freedom from authority play essential roles in teachers being autonomous. Pearson and Moomaw (2005) believe that to become professionals, teachers should have enough autonomy to meet their students' needs, similar to a doctor possessing the autonomy necessary for tending to their patients.

Even though teacher autonomy is a notion that has been occupying the minds of many researchers throughout the years, there are no fixed answers when it comes to what kind of dimensions it has. For this study, the dimensions of teacher autonomy will be categorized as planning and implementation of educational matters, participation in the organizational processes, and professional development.

Some of the most fundamental roles of teaching include the planning and implementation of the curriculum, teaching methods, and the evaluation of the students. Therefore, having the necessary autonomy in these areas is a pivotal part of teacher autonomy. Bizmiye (2020) examined the dependency of EFL teachers on the textbooks and found that the administrators restrict the teachers' autonomy by not letting them deviate from the Ministry of National Education's (MoNE) curriculum and textbooks, which results in the participants being bound to the English textbooks. Esfandiari and Kamali (2016) believe that an autonomous teacher may feel more motivated and satisfied with their job when they can choose their own teaching materials. Furthermore, the satisfaction they gain will aid them in feeling more accomplished at their job, which in turn will prevent them from burning out

(p.77). When it comes to participation in the organizational processes, possessing authority over the work environment and being able to meaningfully influence decisions regarding the school management encompass a large part of teacher autonomy. Mackenzie (2002) suggested that teachers being able to influence curriculum development is a good starting place to increase teacher autonomy and added that educational institutions that let their teachers influence the curriculum are on the right path to becoming a proper learning institution (as cited in Benson & Huang, 2008). Because teachers often find themselves in a position of being torn between their students and the school administration, the importance of Mackenzie's words becomes even more understandable. Ingersoll (2007) believes that teachers resemble a middleman, stuck between two different groups, the school administration and the students, with different needs and demands. They are given the responsibility to fulfill these needs and demands, but do not receive enough power to make meaningful decisions. Therefore, teacher autonomy is essential in saving teachers from this paradoxical situation. Koçak (2018) agrees with Mackenzie and Ingersoll and emphasizes that the scope of teacher autonomy should not be seen as limited only inside of the classroom. She argues that a key part of teacher autonomy is having authority over the work environment. Additionally, administrators' attitudes play an important role in influencing teacher autonomy (Uğurlu and Qahramanova, 2016). Teachers' professional development has also been a topic of discussion for decades in education. Avalos (2011) thinks that the reason why this topic has been and is continuing to be researched is the common understanding of what professional development is all about: the teachers' gaining knowledge about how to learn and then learning how to turn their knowledge into practice to provide for their students and help them grow. Teacher autonomy plays a critical role in helping teachers develop the necessary skills to fulfill their responsibilities as teachers.

Teacher Burnout

The term burnout has a long history. Schaufeli et al. (2017) believe that certain characters from the books *Buddenbrooks* (1922) and *A Burnout Case* (1960) showed symptoms that are associated with the concept of burnout as we know it. As mentioned before, burnout as a term was coined by Freudenberg (1974). However, Maslach's studies played a huge role in popularizing burnout. Maslach and Jackson (1981) developed the Maslach Burnout Inventory (MBI), which measured burnout under three subcategories: emotional exhaustion, depersonalization, and personal accomplishment. Considering the stressful nature of the teaching profession, the term burnout quickly became a talking point in education. Friedman (1993) states that burnout was regarded as a notion encompassing teachers' negative reactions to their work in the early studies of burnout in the teaching profession. In the later years, the research about teacher burnout became more empirical, and previous methods used in measuring teacher burnout have been recontextualized. Teacher burnout scales have been designed and/or recontextualized to be more appropriate for education. Some of them were: MBI-Educators Survey (MBI-ES), which was a version of the original MBI that had been designed for educators. The Teacher Burnout Scale (TBS) was designed by Seidman and Zager (1986-1987), and the Teacher Occupational Burnout Scale was designed by Kaner et al. (2008, as cited in Deneme, 2021). The role of the teacher-student relationship on teacher burnout became a matter of curiosity (Corbin et al., 2019; Pedditzi et al., 2021). Pedditzi et al. (2021) found that 29.9% of their participants had a high level of emotional exhaustion and 33.8% had a high level of depersonalization. Their findings confirmed that there is a correlation between teacher-student dissatisfaction and teacher burnout. Corbin et al. (2019) found similar results, which displayed that teachers who had a perceived negative dynamic with their students were more prone to feeling emotionally frustrated and fatigued, which were signs of teacher burnout. Administrative support is also regarded as an important factor for teacher burnout. It usually refers to the help the administrators can provide for the teachers, such as offering emotional support, involving teachers more in the organizational decisions, and encouraging collaboration among teachers (Ford et al., 2019). Some researchers deem administrative support as an important factor in the teachers' decision about whether to stay in their jobs (Aldosiry, 2022; Ford et al., 2019). Perceived administrative support has been found to have a negative correlation with teacher burnout (Deneme, 2021; Girgin & Baysal, 2005; Yavuz, 2019; Yavuz & Yıkıms, 2021). These studies show that perceived administrative support may play a vital role in preventing and dealing with teacher burnout. Lastly, healthy coping mechanisms are an important part of the discussion regarding preventing and battling teacher burnout. Terry (1997) suggests that teachers should be aware of the requirements of the teaching profession and find stress management techniques according to them. Teachers need to have support systems and coping mechanisms to support them in the long run, so they can avoid burnout.

Previous Research on the Correlation Between Teacher Autonomy and Teacher Burnout

In this section, five selected studies will be examined shortly in order to paint a clear picture of the findings regarding this topic. Pearson and Moomaw (2005) investigated the dynamic between teacher autonomy and job stress along with factors such as work satisfaction, empowerment, and professionalism. The findings of the study

showed that there was a negative correlation between teacher autonomy and job stress levels of the teachers. Particularly, curriculum autonomy showed a significant relationship with job stress.

Gavrilyuk et al. (2013) designed a study to see whether the improvement in the perceived level of teacher autonomy reduces the perceived level of burnout in Russian university teachers. Their sample consisted of 91 teachers who were working at Krasnoyarsk State Medical University in Russia. The results of the study showed a significant and negative correlation between teacher autonomy and teacher burnout. They observed that participants who did not show any symptoms of burnout had a high level of autonomy. Correspondingly, almost 90% of the participants who were having problems coping with job-related stress had a low level of autonomy. It should also be added that more than 73% of the participants found teaching taxing.

The aim of Javadi's (2014) study was to investigate the relationship between burnout and autonomy among ELT teachers in Iran. Her sample consisted of 143 teachers. Javadi had also found a significant and inverse correlation between teacher autonomy and teacher burnout. The findings showed that the dimensions of burnout predicted 31% of teachers' perceived sense of autonomy. An imperative result that should be highlighted is that participants who believed they possessed more authority regarding their teaching stated that they felt less sense of burnout in their teaching experiences. Additionally, the study implies that contextual factors such as job dissatisfaction and the perception of a lack of authority play a major role in triggering teacher burnout. Javadi believes that by figuring out what kind of factors are causing a decrease in teacher autonomy and an increase in teacher burnout, the necessary systemic and organizational changes that will better support teachers and enhance teacher autonomy can be made.

The purpose of Esfandiari and Kamali (2016) was to explore the dynamic between job satisfaction, teacher burnout, and teacher autonomy. The findings of the study show that there is a weak, negative correlation between teacher job satisfaction and teacher burnout and a weak, negative correlation between teacher job satisfaction and teacher autonomy. Interestingly, though, Esfandiari and Kamali did not find a statistically significant relationship between teacher burnout and teacher autonomy.

Koçak (2018) investigated the dynamic between teacher autonomy and teacher burnout among EFL teachers at the middle school level in Van, Turkey. The results of the study showed a significant and inverse relationship between teacher autonomy and teacher burnout. The participants had a moderate level of teacher autonomy and a low level of teacher burnout. Koçak thinks these results may have stemmed from the centralized structure of the Turkish education system.

Method

In this section, information regarding the research design, research questions, participants, data collection tools, data collection procedure, and analysis will be presented.

Research Design

This study aims to examine the dynamic between teacher autonomy and teacher burnout. To do that, the correlational research design was chosen. Fraenkel and Wallen (2012) describe correlational research as the study that explores the relationship between two or more variables without trying to influence them. Additionally, the data for this study were collected via a quantitative research design.

Research Questions

The study's purpose is to find answers to the following research questions:

1. What is the perceived level of teacher autonomy of Turkish EFL teachers who teach at high school level?
2. What is the perceived level of teacher burnout of Turkish EFL teachers who teach at high school level?
3. Is there a significant correlation between the perceived level of teacher autonomy and the perceived level of teacher burnout of Turkish EFL teachers who teach at high school level?

Participants

The sample of this study consists of 100 EFL teachers who teach in the public and private high schools of the center of Edirne and its districts, Uzunköprü, Havsa, İpsala, and Keşan during the 2021-2022 school year. The participants were selected based on convenience sampling. Etikan et al. (2016) describe convenience sampling as a kind of sampling where the target population is selected based on factors such as easy accessibility, geographical proximity, and the willingness to participate. The sample was chosen based on their willingness to participate and geographical proximity for this study. Demographic information about the participants is presented in Table 1.

Table 1. Summary of Participant Demographics (N = 100)

Variable	Category/Range	N	%
Gender	Female	63	63.0%
	Male	37	37.0%
	Other / Prefer not to say	2	2.0%
Age (years)	Range	23–61	—
Teaching Experience	Range (in years)	2–35	—
	Mean (approximate)	—	16.5

According to the table, 63% of the participants identified as female, 37% as male, and 2% preferred not to mention their gender. Their ages ranged from 23 to 61 years, and teaching experience varied from 2 to 35 years.

Data Collection Tools

The Teacher Autonomy Scale (TAS), designed by Pearson and Hall (1993), and the Teacher Burnout Scale (TBS), designed by Seidman and Zager (1986-1987), were used to collect data for the study.

TAS: It was developed by Pearson and Hall (1993). The scale is a 4-point Likert-type scale (1= Definitely True, 2= More or Less True, 3= More or Less False, 4= Definitely False). It examines the general autonomy and the curriculum autonomy of the participants. The scale consists of 20 items.

TBS: It was developed by Seidman and Zager (1986-1987). The scale is a 6-point Likert-type scale (1= Strongly Disagree, 2= Moderately Disagree, 3= Slightly Disagree, 4= Slightly Agree, 5= Moderately Agree, 6= Strongly Agree). It explores teacher burnout in four categories: career satisfaction, perceived administrative support, coping with job-related stress, and attitudes towards students. The scale consists of 21 items.

Data Collection Procedure and Analysis

The data collection tools were distributed to the participants via papers that contained QR codes leading to the questionnaires and as papers that contained the questionnaires in a physical form. Then, the data collection tools were collected after being completed. The data collection process lasted four months, and then the data were analyzed. The data that were collected via TAS and TBS were analyzed through IBM Statistical Package for the Social Sciences (SPSS) version 25. The third research question aimed to find out if teacher autonomy and teacher burnout were correlated. The assumption of distribution normality was tested to understand if parametric correlation coefficients could be computed. The preliminary findings showed that all skewness and kurtosis values were between -0.78 and 1.15, meaning that parametric analyses could be run. After that, Pearson's Correlation Coefficients were calculated to answer the third research question.

Ethics approval notification

Ethical permission (01.02.2022/E-56569733-44-42483014) was obtained from Trakya University for this research.

Results and Discussion

In this section, every single research question will be answered, the results will be displayed, and then discussed in detail.

The first research question's purpose was to figure out the perceived level of teacher autonomy of Turkish EFL teachers who teach at high school level. The descriptive findings for TAS and its subscales are provided below.

Table 2. Descriptive Findings of TAS and Its Subscales

Scale	M	SD	Min	Max
Teacher Autonomy	2.610	0.380	1.450	3.750
Curriculum Autonomy	2.613	0.457	1.000	3.780
General Autonomy	2.606	0.429	1.820	3.820

According to the findings, teacher autonomy had a mean of 2.61 (SD = 0.38) out of 4.00. When the scale was broken down into its subscales, it was seen that the curriculum autonomy subscale of teacher autonomy (M = 2.61, SD = 0.46) had a slightly higher mean than the general autonomy subscale (M = 2.61, SD = 0.43).

The results revealed that the participants possess an overall low level of teacher autonomy, with their curriculum autonomy being slightly higher than their general autonomy. At the end of the Teacher Autonomy Subscale, there was a short section where the participants could add some additional information. The comments from the participants played a major role in elucidating the results of the study. Upon reviewing, the comments indicate that the administrators are a huge factor when it comes to restricting teacher autonomy. A comment from the participants can be paraphrased as: *"The administrators are too invasive when it comes to what we (teachers) are going to teach in the classroom. They want to make sure the teachers teach their classes "by the book"."* The descriptive results of items 2 and 18 seem to be in line with this comment.

Table 3. Descriptive Statistics of Items #2, #18 in TAS

Item	N	Min	Max	M	SD
2. The selection of student-learning activities in my class is under my control	100	1	4	2.67	0.865
18. I select the teaching methods and strategies I use with my students.	100	1	4	2.86	0.841

As the results were analyzed and interpreted, two reasons for this restriction from the administrators surfaced: the parents' control and the curriculum set by the MoNE. Two comments from the participants reveal how the parents' control affects their autonomy. They can be paraphrased as: *"Due to the nature of private educational institutions in Turkey, while the parents do not technically have authority over how we are going to teach our classes, their complaints to the administrators undoubtedly affect the nature of said classes."* and *"Some parents seem to not like it if we teach our classes in a creative way and accuse us of "playing around" instead of teaching the class "in a normal way"."* The descriptive results of items 6, 8, and 14 seem to be in line with these comments.

Table 4. Descriptive Statistics of Items #6, #8, #14 in TAS

Item	N	Min	Max	M	SD
6. Standards for my classroom are set primarily by myself.	100	1	4	2.48	0.772
8. In my teaching, I use my own guidelines and procedures.	100	1	4	2.70	0.659
14. What I teach in my class is determined for the most part by myself.	100	1	4	2.43	0.807

The contents of the textbooks chosen by the MoNE constitute a large part of the high school and university entrance exams. This means that teachers must adhere to these books for their students to score high on these exams. Bizmiye's (2020) findings also reflect this statement.

The second research question's purpose was to find out the perceived level of teacher burnout of Turkish EFL teachers who teach at high school level. The descriptive findings for the Teacher Burnout Scale and its subscales are presented below.

Table 5. Descriptive Findings of TBS and Its Subscales

Scale	M	SD	Min	Max
Teacher Burnout	3.249	0.879	1.480	5.330
Attitudes towards Students	3.405	1.083	1.000	5.500
Perceived Administrative Support	3.357	1.117	1.000	6.000
Coping with Job-related Stress	3.220	1.109	1.000	5.500
Career Satisfaction	3.024	1.152	1.000	5.600

According to the findings, teacher burnout had a mean of 3.25 (SD = 0.88) out of 6.00. When the scale was broken down into its subscales, it was seen that all the subscales showed a moderate level of teacher burnout. The highest mean was detected in the attitudes towards students subscale (M = 3.41, SD = 1.08), and the lowest mean was found in the career satisfaction subscale (M = 3.02, SD = 1.15).

The findings demonstrated that the participants had a moderate level of teacher burnout. Since the subscale was reverse-coded, the lowest mean in the career satisfaction subscale indicates that the participants are not satisfied with their jobs. The highest mean of the attitudes towards students subscale showed that the participants have a cynical attitude towards their students. The results of each subscale of the Teacher Burnout Scale were analyzed and interpreted to understand the findings better. The findings of items 5 and 12 suggest that a large portion of the participants regret their career choices and would not want to work as a teacher if they had the opportunity.

Table 6. Descriptive Findings of Items #5, #12 in TBS

Item	N	Min	Max	M	SD
5. I am glad that I selected teaching as a career.	100	1	6	2.79	1.731
12. If I had it to do all over again, I would not become a schoolteacher.	100	1	6	3.15	1.731

The results of items 6 and 21 show that the participants have a cynical attitude towards their students. At the end of the Teacher Burnout Subscale, there was also a short section where the participants could add additional information. Two comments from the participants highlight the effect the control of the parents has on teacher burnout. They can be paraphrased as: *"Because of the unconcerned attitudes of their parents, students lack the understanding of how important education is and misbehave in the classroom, which overwhelms me,"* and *"I was surprised at the carefree attitude of the parents when I started teaching first. They felt free to call and tell me how to run my classroom. This attitude affected the decisions of the administrators when it comes to the teaching methods for the classes."* The results of the study seem to be in line with these comments.

Table 7. Descriptive Findings of Items #6, #21 in TBS

Item	N	Min	Max	M	SD
6. The students act like a bunch of animals.	100	1	6	2.77	1.651
21. Students come to school with bad attitudes.	100	1	6	3.99	1.611

The results of items 4, 7, and 9 reveal that the participants find the working days quite demanding and stressful. They seem to agree that their physical illnesses may stem from their work environment. These findings show the importance of finding meaningful coping strategies to prevent and/or deal with teacher burnout.

Table 8. Descriptive Findings of Items #4, #7, #9 in TBS

Item	N	Min	Max	M	SD
4. The teaching day seems to drag on and on.	100	1	6	3.36	1.460
7. My physical illnesses may be related to the stress in this job.	100	1	6	3.23	1.523
9. I find it difficult to calm down after a day of teaching.	100	1	6	3.16	1.529

The findings of items 8, 11, and 18 show that the participants do not have a healthy relationship with their administrators and do not feel like they can receive the support they need if necessary.

Table 9. The Descriptive Findings of Items #8, #11 and #18 in Teacher Burnout Scale

Item	N	Min	Max	M	SD
8. I feel that the administrators are willing to help me with classroom problems, should they arise.	100	1	6	3.17	1.443
11. I believe that my efforts in the classroom are underappreciated by the administrators.	100	1	6	3.89	1.510
18. I feel that the administrators will not help me with classroom difficulties.	100	1	6	3.39	1.442

The third research question's purpose was to figure out if there is a significant correlation between the perceived level of teacher autonomy and the perceived level of teacher burnout of Turkish EFL teachers who teach at high school level. The correlation computations are presented below.

Table 9. Correlation Computations

Scale	Value	(1)	(2)	(3)	(4)	(5)	(6)
Teacher Autonomy (1)	r	1.000					
	p	-					
	r ²	-					
General Autonomy (2)	r	.879	1.000				
	p	< .001	-				
	r ²	.773	-				
Curriculum Autonomy (3)	r	.837	.474	1.000			
	p	< .001	< .001	-			
	r ²	.701	.225	-			
Teacher Burnout (4)	r	-.522	-.579	-.298	1.000		
	p	< .001	< .001	.003	-		
	r ²	.272	.335	.089	-		
Career Satisfaction (5)	r	-.483	-.523	-.291	.803	1.000	
	p	< .001	< .001	.003	< .001	-	
	r ²	.233	.274	.085	.645	-	
Perceived Administrative Support (6)	r	-.397	-.434	-.234	.738	.433	1.000

The correlation analysis showed that teacher burnout had a negative and moderate correlation with teacher autonomy ($r = -.522$, $p < .001$). These results suggest that there is a significant, moderate, and inverse relationship between teacher autonomy and teacher burnout among the participants of this study.

When it comes to the correlation between the subscales of the Teacher Autonomy Scale and the Teacher Burnout Scale, the findings are as follows:

1. Career satisfaction subscale has a negative and moderate correlation with general autonomy subscale ($r = -.523$, $p < .001$, $r^2 = .274$) and has a negative and weak correlation with curriculum autonomy subscale ($r = -.291$, $p < .01$, $r^2 = .085$).
2. Perceived administrative support subscale has a negative and weak correlation with general autonomy subscale ($r = -.434$, $p < .001$, $r^2 = .188$) and curriculum autonomy subscale ($r = -.234$, $p < .05$, $r^2 = .055$).
3. Coping with job-related stress subscale has a negative and moderate correlation with general autonomy subscale ($r = -.499$, $p < .001$, $r^2 = .249$) and does not have a significant correlation with curriculum autonomy subscale ($r = .081$, $p > .05$, $r^2 = .031$).
4. Attitudes towards students subscale has a negative and weak correlation with general autonomy subscale ($r = -.339$, $p < .001$, $r^2 = .115$) and curriculum autonomy subscale ($r = -.257$, $p = .01$, $r^2 = .066$).

The findings of this study showed that the participants had a low level of teacher autonomy. Pearson and Moomaw (2005) found contrasting results, which showed high levels of teacher autonomy among their participants. Koçak's (2018) study stood in the middle ground, meaning that her participants showed moderate levels of teacher autonomy. The reasons for these different outcomes may be due to various personal, organizational, and even systemic factors. When Pearson and Moomaw's study is examined, it can be seen that their participants showed high levels of job satisfaction and perceived empowerment. The results indicated that the participants believed their opinions and concerns were taken seriously by the administrators, and they had a say in the development of school policies. On the other hand, both the participants of this study and Koçak's study perceived themselves as lacking when it comes to having meaningful control over the selection of the materials, skills, and methods they would like to cover in their classes. When it comes to the general autonomy subcategory and the curriculum autonomy subcategory, this study found that the participants had slightly higher curriculum autonomy than general autonomy, which contrasted with Koçak's results. Even though this study's participants showed a slightly higher curriculum autonomy, the complaints of both groups of participants are still significant.

The additional information that was received from the participants revealed that they do not see themselves autonomous as teachers. Especially in the private institutions, the administrators have a significant power over the content, methods, and materials that teachers implement in their classrooms; therefore, it is not surprising that they possess a notable effect on teacher autonomy. Uğurlu and Qahramanova (2016) found that their participants perceived their administrators' attitudes as obstacles when it comes to their autonomy. This seems to be in line

with the thoughts of the current study's participants. The results and the comments from the participants suggest that the Turkish education system itself plays a role in restricting and decreasing teacher autonomy. The obligation to obey the MoNE's curriculum strictly lessens the teachers' options in the classroom. As it was shown in Bizmiye's (2020) study, the fact that important exams such as high school and university exams are so dependent on the curriculum of the MoNE leaves them in a rather helpless position. These point out the fact that the Turkish education system puts the teachers in such a position that if the teachers prefer to use alternative and creative methods in their classes, they risk falling behind on the curriculum, thus potentially affecting the future of their students. Alternatively, if they choose to strictly obey the curriculum set by the MoNE, they risk feeling less autonomous as a teacher by the day and potentially experience teacher burnout. Koçak (2018) came to a similar conclusion and said that she believes the centralized structure of the Turkish education system may be the reason for the low level of teacher autonomy because teachers do not possess a significant role in curriculum development processes and therefore cannot make any meaningful decisions about the content they teach.

The results of this study revealed that the participants had a moderate level of teacher burnout. The findings of Gavriluk et al. (2013) and Javadi (2014) seem to be in line with the results of the current study, meaning they found moderate to high levels of teacher burnout among their participants. When the reasons for these results are investigated, some common factors come to the surface, such as work overload, obligation to conform to constraining programs, lack of administrative leadership, and participation in decision-making. In contrast to these studies, Koçak (2018) found a low level of teacher burnout among her participants. While there could be a variety of reasons as to why her participants may not feel burned out, her study seems to indicate that her participants possess the necessary personal and administrative support systems that allow them to deal with job-related problems and stress.

The results of both the Teacher Autonomy Scale and the Teacher Burnout Scale suggest that the parents of the students have a critical role in both teacher autonomy and teacher burnout. The comments from the participants give glimpses of how the parents affect the autonomy of the teachers. Some participants could not help but mention how normalized it is for the parents to complain to the administrators about how the teachers manage their classes. This seems to lead the administrators to limit the teachers' creativity and restrict their decisions both inside and outside the classroom. Some participants emphasized the indirect effect the parents have. They believed that the lack of respect that exudes from the parents' attitudes affects how the students perceive them. This attitude leads to disrespect from their students, which influences the quality of the classes and therefore nurtures the aspects of teacher burnout.

The participants of this study showed a cynical attitude towards their students and their job, which is a clear sign of burnout. These results are in line with the findings of Pedditz et al. (2021) and Corbin et al. (2019). All of these results highlight the importance of the teacher-student relationship when it comes to examining teacher burnout and are certainly vital stepping stones in research regarding preventing teacher burnout.

Most participants picked out the options that state they do not trust they will receive the help they require from their administrators. This is in line with the findings of Deneme (2021), Girgin and Baysal (2005), Yavuz (2019), and Yavuz Yıkımsı (2021). The participants who felt like they could rely on the guidance of their administrators when they needed it showed fewer signs of being burned out.

Additionally, the study highlighted the importance of awareness of healthy coping mechanisms when it comes to preventing and battling teacher burnout. The participants of this study showed that they have a hard time regulating their emotions at the end of the teaching day. The results of various items implied that the participants seem to be emotionally worn out and believe that even some of their physical illnesses may be related to the stress they face as teachers. This indicates that many participants lack the resources and/or are unaware of meaningful and healthy coping mechanisms necessary to deal with the stress of being a teacher.

The main goal of this article was to examine the dynamic between autonomy and burnout of the participants. This study showed that there is a significant, inverse, and moderate correlation between the perceived level of teacher autonomy and the perceived level of teacher burnout. The findings of Pearson and Moomaw (2005), Gavriluk et al. (2013), Javadi (2014), and Koçak (2018) seem to be in line with the current study, meaning they have also found a significant and inverse relationship between teacher autonomy and teacher burnout among their participants. Esfandiari and Kamali (2016) found contrasting results to these studies, meaning they found no significant relationship between teacher autonomy and teacher burnout. They believe that there might be a couple of reasons for this result. One of them is that it takes a long time to observe symptoms of teacher burnout, and

since 96 participants of this study were teachers with 1 to 5 years of teaching experience, they might not have shown symptoms of teacher burnout yet. Another reason may be that since the perception of disappointment is a crucial part of feeling burnout, if the participants do not perceive disappointment, they may not show signs of burnout. Additionally, they think the perception of freedom each teacher has may not correlate with their working environments.

Conclusion

The results of the first research question showed that the participants have a low level of teacher autonomy. They also have a slightly higher curriculum autonomy than general autonomy. When it comes to the participants' control over their freedom in choosing the teaching methods and activities they implement, the participants do not perceive themselves much autonomous in this area. It is clearly examined that they felt restricted creatively by their administrators. The findings demonstrate that the participants have a low perception of teacher autonomy, which shows that the participants don't believe they have much autonomy over how they manage their classrooms. These results make a point about the considerable effect the parents have on the Turkish education system and teacher autonomy. The findings of the second research question showed that the participants have a moderate level of teacher burnout. When the subcategories of teacher burnout were examined, it was found that all the subcategories indicated a moderate level of teacher burnout, although the highest mean was observed in the attitudes towards students subscale and the lowest mean was observed in the career satisfaction subscale. The participants show dissatisfaction towards their jobs and have a scornful attitude towards their students. Additionally, the participants did not have a positive relationship with their administrators and did not perceive enough support from them. The results of the third research question demonstrated that teacher burnout was significantly, negatively, and moderately correlated with teacher autonomy.

Limitations

The sample of this study was 100 Turkish high school teachers who teach English at public or private institutions in Edirne. The sample size and the nature of the population restrict generability.

Recommendations

The study was limited to 100 participants. Future studies may increase the number of participants to achieve more comprehensive results.

As previously mentioned, the administrators have a meaningful influence on the content and skills the teachers teach in their classrooms. This means that the researchers exploring teacher autonomy should consider the administrators as an important factor for further studies.

The centralized structure of the Turkish education system may restrict the autonomy of the teachers and, in the long term, cause teacher burnout. This means that when it comes to both teacher autonomy and teacher burnout, the Turkish education system itself must not be overlooked as a potential source of multiple factors that affect both of these notions.

It was clearly seen how the parents of the students could affect the order in the classroom through the pressure they put on the administrators, and how they could lead to teacher burnout through their behavior, both directly to the teachers and indirectly to the teachers through the way they raised the students. These point out that parents should be a crucial factor for studies researching the relationship between teacher autonomy and teacher burnout. When it comes to perceived support from the administrators, the participants showed a clear distrust towards their administrators. This lack of trust should be investigated more in future studies because this study indicates that a lack of support from the administrators can be a prominent factor in increasing teacher burnout; therefore, longitudinal studies researching the dynamic between teacher burnout and the support from the administrators are advised.

The topic of the coping mechanisms of the teachers should also not be forgotten. To make sure they have the necessary support they need, individual and systemic steps need to be taken. The teachers should actively seek out healthy coping mechanisms that suit their individual needs, and the Turkish education system itself should be modified to support the teachers' needs and thus prevent and battle teacher burnout in the long term. When it comes to further studies researching teacher burnout, the awareness of healthy coping mechanisms should be an important factor to keep in mind.

Lastly, the results of the current study showed that as the level of autonomy increased, the participants' level of burnout decreased. This means that to prevent and battle teacher burnout, taking steps to increase teacher autonomy is a vital approach. This study revealed what kind of restrictions may hinder teacher autonomy, so to nurture teacher autonomy, the need for organizational and systemic changes should be pointed out. Throughout the study, potential factors that affect teacher burnout have been mentioned. To battle teacher burnout, the factors that cause and develop teacher burnout should be identified by authoritative figures in education so that the teachers can receive the support and care they need. The more awareness of teacher burnout is recognized, the easier it will be to battle it in the long run, and perhaps even more importantly, the teachers who already battle teacher burnout can receive help during this hard period in their careers. This study showed that being aware of the dynamic between teacher autonomy and teacher burnout is quite valuable for the well-being of teachers. Increasing teacher autonomy will help teachers feel more in control and happy both inside and outside the classroom, and will result in decreasing and even preventing teacher burnout.

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Authors Contribution Rate

The first author wrote the thesis from which this article was produced under the supervision of the second author. During the article preparation process, the second author reviewed the entire manuscript, making necessary additions and corrections to prepare it for submission.

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The Role of Accounting Learning in Forming Financial Attitudes and Its Contribution to the Level of Financial Management of Bidikmisi Students

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Abstract

Bididikmisi scholarship students' financial limitations require them to manage them effectively and efficiently. Students' awareness of managing finances is based on their attitudes formed through financial literacy resulting from the financial learning process. This study aims to analyze the direct and indirect effects of accounting learning on the level of financial management through the financial attitudes of Bidikmisi scholarship students. The study was conducted on 89 students of the Economic Education Study Program, Jambi University, class of 2019-2022. To achieve this goal, the study was conducted using a quantitative method. Data were analyzed using Path Analysis statistical techniques. The results of the analysis explain that accounting learning as a shaper of students' financial literacy does not directly affect the level of students' financial management but has an indirect effect on financial management through students' financial attitudes. Students with good financial literacy will be wise about their financial problems so that they will try to manage their finances as well as possible. The resulting path model is very suitable in explaining the effect of accounting learning variables on students' financial management through financial attitude variables based on GFI values > 0.95. The results of this study recommend that Bidikmisi scholarship recipients make accounting courses a source of financial literacy so that they are not only value-oriented but also focused on understanding in studying it so that they will form a wise attitude towards the financial problems they face and try to manage their finances effectively and efficiently.

Keywords: Accounting Learning, Financial Attitude, Financial Management

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Introduction

Students are faced with a financial dilemma that must be addressed wisely. Limited financial resources and many needs require students to be able to manage their finances well. The character of students as the younger generation is faced with two choices in spending money, namely following lifestyle trends or investing for the future. The inability to manage finances will have implications for the choice of a wasteful attitude that never feels enough with whatever income they have (Hariyani, 2022). On the other hand, technological developments that facilitate financial transactions if not balanced with the ability to manage finances well will result in a greater disparity in expenditure than income (Bachtiar et al., 2022). Thus, students need to have financial literacy that will strengthen their ability to manage finances so that they are wise in making decisions about spending their finances (Lusardi, 2019).

Financial management is a person's ability to know and understand the financial conditions they have as assets in life that will be used for present and future interests (Priantinah et al., 2019). A person's ability to manage finances is also shown by their skills and abilities in influencing and controlling the financial problems they face (Brüggen et al., 2017). Students' ability to manage finances can be formed through financial education (accounting) which teaches the knowledge and skills of managing finances and how to make wise decisions in using finances (Yogasnumurti et al., 2021).

Financial management is closely related to the level of effectiveness of fund management because it will have a direct positive impact on improving financial well-being and the consequences of its failure will hurt social life in the long term (Mien & Thao, 2015). Good financial management will balance income and expenses, avoid financial difficulties, and potentially achieve happiness in the future (Dwiastanti, 2015), ensuring that financial conditions remain safe in the long term (Priantinah et al., 2019).

Managing finances well is a requirement for students because they have financial limitations. In general, students' financial resources come from parents, the amount of which is limited to living expenses while carrying out study assignments (Sithole et al., 2017); (Ameliawati & Setiyani, 2018). Moreover, for students whose source of income comes entirely from scholarships, financial management is a determinant of learning success.

The tendency of student behavior in managing finances is a study issue that is widely discussed in various studies. The characteristics of students who describe generation "Z" have specific behavior in managing finances, in addition to being useful for explaining people's consumption patterns (Platania et al., 2016), they can also be used to explain their role in economic performance (Gazzola et al., 2020). In various universities, there is a trend of poor student behavior in managing finances, which is indicated by an attitude that prioritizes interests over needs in consuming goods, prioritizes the need to have fun over educational needs and savings, and poor credit management (Ameliawati & Setiyani, 2018). Based on the results of observations on Bidikmisi scholarship recipients for the Economic Education Study Program, class of 2019-2022, it shows that most of them are not good at managing finances, as shown in the following Figure:

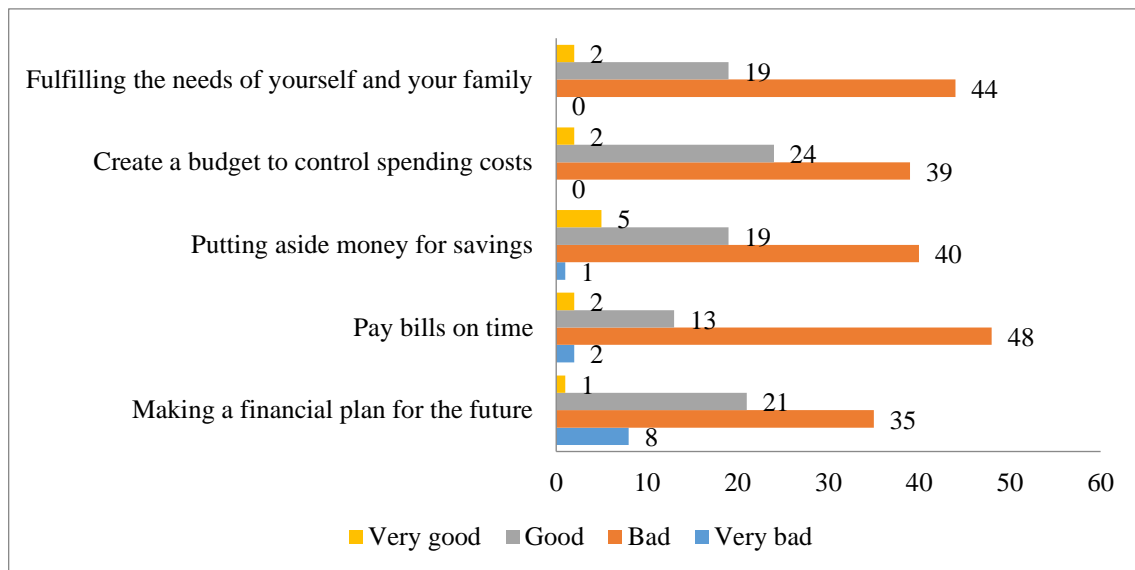


Figure 1. Financial management level of Bidikmisi scholarship recipients for the Economic Education study program, 2019-2022

Based on Figure 1, shows that only a small portion of students have managed their finances well in planning their finances for the future, paying bills on time, setting aside money for savings, making a budget to control spending costs, and trying to meet personal needs. Bidikmisi scholarship recipients must prioritize the use of their finances for learning needs compared to other needs (Kuswanto, 2019). According to (Dewi, 2015), the level of student financial management is influenced by financial literacy, financial attitudes, and parental income. The results of a study conducted by (Napitupulu et al., 2021) prove that there is a significant influence of financial literacy and financial attitude variables on the financial behavior of students in Samarinda City. The financial behavior of undergraduate students in economics education, and Master and Doctoral students in Management at the Indonesian Education University is significantly influenced by the variables of financial literacy and financial independence (Suwatno et al., 2020). Financial attitudes and family financial education have a direct and indirect effect on financial management through the locus of control variable in Accounting students of Surabaya State University, class of 2017-2028. Research results (Khoirunnisa & Rochmawati, 2021).

In this study, the analysis focuses on the role of accounting learning as a shaper of students' financial literacy. Through accounting learning, students will learn about finance (Potrich et al., 2016); (Stolper & Walter, 2017). Financial literacy describes the level of financial knowledge and a person's ability to do financial calculations (Garg & Singh, 2018). A person who has good financial literacy will have a good attitude towards their finances (Rai et al., 2019). Financial attitudes show a person's tendency towards various financial problems they face. Good financial attitudes will encourage someone to manage their finances well (Ameliawati & Setiyani, 2018).

Although various studies have examined the influence of financial literacy, financial attitudes, and financial education on students' financial management, there are still few that specifically examine the role of accounting learning as a factor in shaping financial literacy and financial attitudes, and its impact on financial management of scholarship students, especially in the Indonesian context. In addition, most previous studies are correlational and do not explicitly examine the mediating mechanism of financial attitudes as an intervening variable. Therefore, this study attempts to fill this gap by examining the direct and indirect effects of accounting learning on financial management through students' financial attitudes, and assessing the most appropriate model in explaining the relationship statistically.

Based on this concept, it is very important to place the financial attitude variable as an intervening variable in examining the role of accounting learning in determining students' ability to manage their finances. This study will complement the results of the study of the level of financial management among the younger generation, especially students as potential economic actors.

Method

This study uses quantitative methods in collecting data and analyzing data to explain the role of accounting learning in shaping financial attitudes and its impact on students' financial management. The financial attitude variable is placed as an intervening variable to mediate the indirect effect of accounting learning variables on students' financial management, as shown in the following figure:

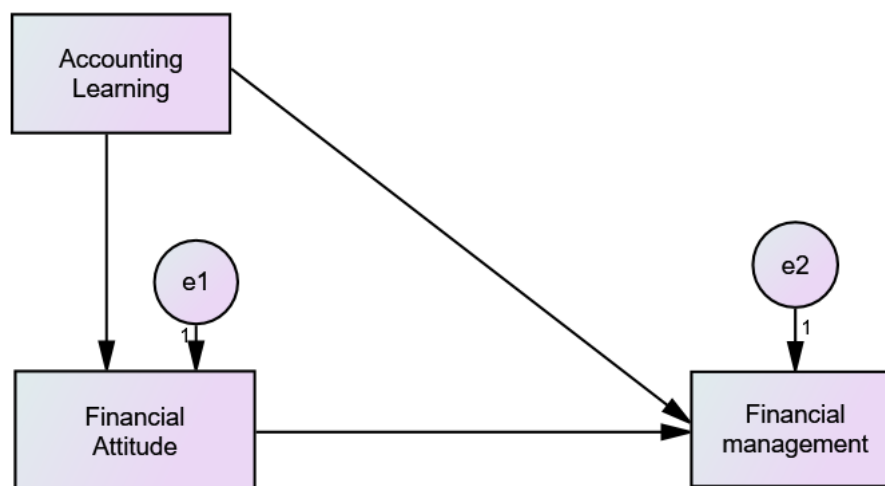


Figure 2. Model of the influence of accounting learning variables on financial management through financial attitude variables

The study was conducted on Bidikmisi scholarship recipients at the Economic Education Study Program, Jambi University, class of 2019-2022, totaling 91 students. Accounting learning data were obtained from accounting learning outcomes, while financial attitude and financial management data were obtained using a questionnaire with an answer scale of 1-5. In this study, the instrument used to measure the variables of financial attitudes and financial management of students was carried out through a validity and reliability test process. The validity test was carried out using construct validity techniques through confirmatory factor analysis (CFA) to ensure that the question items were able to measure the intended concept accurately and according to the theory. Meanwhile, the reliability of the instrument was tested by calculating the Cronbach's Alpha coefficient value. If the Cronbach's Alpha value is > 0.70 , then the instrument is considered reliable and consistent in measuring the variable. The test results showed that all instruments used had adequate reliability values and good validity, so that the data obtained were suitable for further analysis.

The data were processed using path analysis techniques with the help of Amos 22.0 software. Mathematically, the effect of accounting learning variables on financial management through financial attitude variables is formulated in the following equation:

$$Y = a_1 + b_1X \dots\dots\dots(1)$$

$$Z = a_2 + b_2X + e_1 \dots\dots\dots(2)$$

$$Y = a_3 + b_3Z + e_2 \dots\dots\dots(3)$$

$$Y = a_4 + b_4X + b_4Z + e_2 \dots\dots\dots(4)$$

The accuracy of the model is based on the GFI (Goodness of Fit Index) index. If the value is equal to 1, it indicates a perfect model fit. A GFI value of 0.9 indicates a reasonable model fit, while if the value is equal to 0.95, the resulting model is considered very suitable (Narimawati et al., 2022).

Results and Discussion

Research result

This study was conducted on 89 Bidikmisi scholarship recipients of the Economic Education Study Program, Jambi University, class of 2019-2022. The study was conducted to examine the role of accounting learning in the

formation of financial attitudes and its impact on students' financial management. Based on the research that has been conducted, the data obtained are shown in Table 1 below:

Table 1. Description of Research Data

Variable	N	Minimum	Maximum	Mean	Skewness	Kurtosis
Financial Management	89	25	60	46.34	-1.14	3.33
Accounting Learning	89	72	83	77.9	-0.11	-0.62
Financial Attitude	89	20	45	33.91	-0.10	-0.07

Source: Primary data processed, 2023

Based on Table 1, the average score of the financial management variable data for students is 46.34 with a minimum score of 25 and a maximum score of 60. Negative skewness indicates the tail of the distribution on the left side of the curve so that most of the values are on the right side of the curve. A kurtosis value of 3 indicates a normal distribution of data. The accounting learning and financial attitude variable data have a negative skewness value indicating that most students have high learning outcomes and financial attitudes, but this does not occur evenly because the kurtosis value is < 3 .

Prerequisite Analysis Test Results

To meet the requirements for path analysis, normality, heteroscedasticity and multicollinearity tests were carried out as shown in Table 2 below:

Table 2. Results of the Analysis Prerequisite Test

No	Analysis Prerequisite Test	Parameter	Criteria	Mark	Conclusion
1	Normality	Asymp. Sig. (2-tailed)	> 0.05	0.14	Normally Distributed
2	Heteroscedasticity	Sig.	> 0.05	0.08	Homoscedasticity
				0.19	Homoscedasticity
3	Multicollinearity	VIF	< 10	1.24	No multicollinearity

Source: Primary data processed, 2023

Based on Table 2, the data is normally distributed because the asymptotic significance value (Asymp. Sig) is 0.14 $>$ alpha 5%. The data has a homogeneous variance because the significance value is 0.08 $>$ alpha 5%, and there is no multicollinearity in the exogenous variables because the VIF value is $1.24 < 10$.

Path Analysis Results

To determine the direct and indirect influence of accounting learning variables on financial management through financial attitudes, data was analyzed using path analysis techniques, as shown in the following Figure:

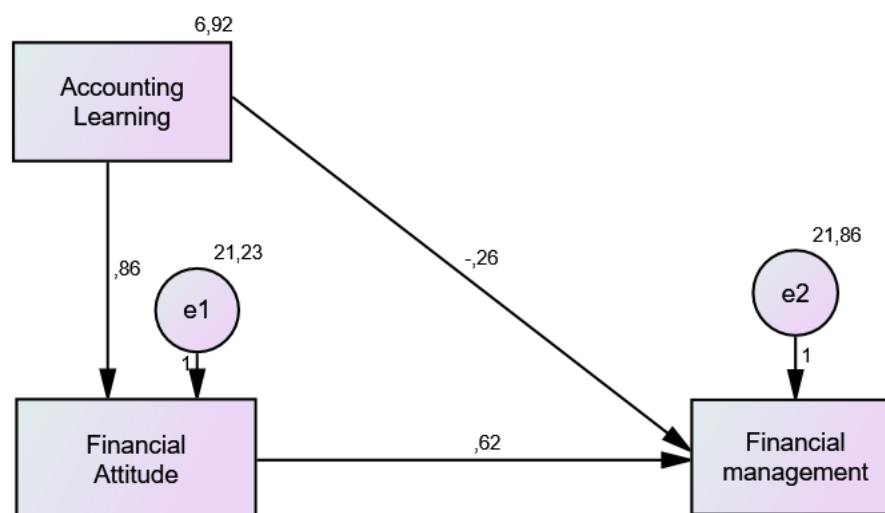


Figure 3. Model of the influence of accounting learning variables on financial management through the financial attitudes of Bidikmisi Scholarship recipient students

Based on Figure 3, it explains that the direct influence of accounting learning variables is smaller compared to its indirect influence through financial attitudes towards financial management in Bidikmisi scholarship recipients of the Economic Education Study Program, class of 2019-2022. These results reveal that accounting learning will play a role in students' financial management if supported by good financial attitudes. Statistically explained in Table 3 below:

Table 3. Regression Weights

Variable		Estimate	S.E.	C.R.	P
Financial Attitude (Z)	<--- Accounting Learning (X)	,86	,19	4,59	***
Financial Management (Y)	<--- Financial Attitude (Z)	,62	,11	5,72	***
Financial Management (Y)	<--- Accounting Learning (X)	-,26	,21	-1,23	,22

Source: Primary data processed, 2023

Based on Table 3, the probability value (p) of the influence of accounting learning variables on financial attitudes is $0.000 < \alpha 5\%$, explaining that accounting learning variables have a significant influence on financial attitudes but do not affect financial management because the resulting p-value is $0.22 > \alpha 5\%$. Financial attitude variables have a significant influence on financial management because the resulting p-value is $0.000 < \alpha 5\%$. The level of contribution of accounting learning to financial attitudes and financial management of students is explained in the following table 4:

Table 4. Standardized Regression Weights

Variable		Estimate
Financial Attitude (Z)	<--- Accounting Learning (X)	,44
Financial Management (Y)	<--- Financial Attitude (Z)	,58
Financial Management (Y)	<--- Accounting Learning (X)	-,12

Source: Primary data processed, 2023

Based on Table 4, the level of contribution of accounting learning to the formation of students' financial attitudes is 0.44 but does not contribute significantly to financial management. Students' financial attitudes contribute to their financial management by 0.58. Statistically, the level of effectiveness of the contribution of accounting variables to the formation of students' financial attitudes is based on the Squared Multiple Correlations value, which is 0.19, and the contribution of accounting learning to students' financial management through financial attitudes is 0.28. Statistically, the direct and indirect influence of accounting learning variables on financial management through financial attitudes is explained in Table 5 below:

Table 5. Standardized Direct Effects

Variable	Direct Influence		Indirect Influence	
	Accounting Learning (X)	Financial Attitude (Z)	Accounting Learning (X)	Financial Attitude (Z)
Financial Attitude (Z)	,44	,000	,000	,000
Financial Management (Y)	-,12	,58	,25	,000

Source: Primary data processed, 2023

Based on Table 5, it is explained that the indirect effect of the accounting learning variable on financial management is 0.25, which is greater than its direct effect of -0.12. This result shows that the financial attitude variable has a role as a link between accounting learning and student financial management. Thus, the model built to explain the effect of accounting learning on student financial management through financial attitudes is as follows:

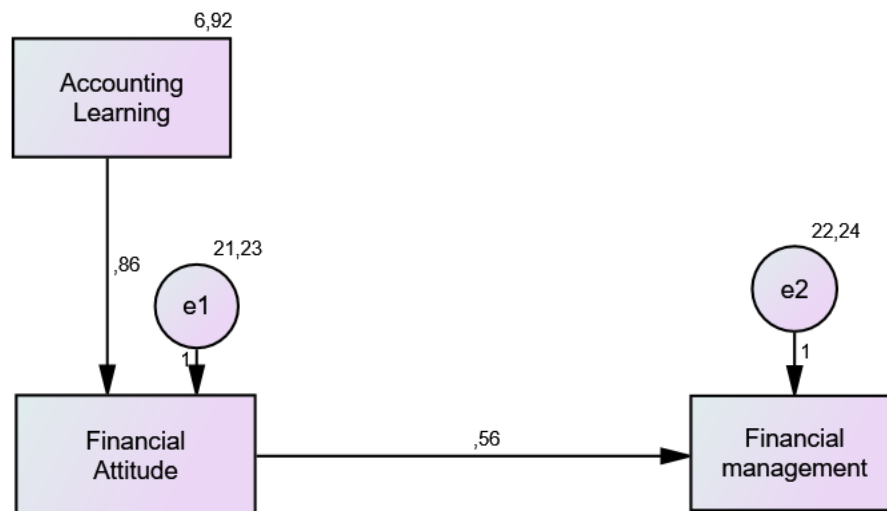


Figure 4. Model of the influence of accounting learning variables on financial management through the financial attitudes of Bidikmisi Scholarship recipient students

Based on Figure 4, explains that the best model for building good financial management is through the formation of financial attitudes resulting from the accounting learning process. Statistically, the level of suitability of the model is based on the GFI value as shown in Table 6 below:

Table 6. Model Fit Results

Model	RMR	GFI	AGFI	PGFI
Default model	,593	,989	,933	,165
Saturated model	,000	1,000		
Independence model	6,530	,757	,515	,379

Source: Primary data processed, 2023

Based on Table 6, the GFI value obtained is 0.989, indicating that the resulting model is very suitable in explaining the influence of accounting learning variables on student financial management through financial attitude variables.

Discussion

Financial management for Bidikmisi scholarship recipients is very important for the continuity of learning in college. As students who rely on scholarships for their studies, they are required to be able to manage their financial use as effectively as possible to meet all their learning needs. Mistakes in managing finances can cause financial difficulties and can have an impact on failure in college (Susanti, 2017). Students who successfully manage their finances will feel financial well-being. Efforts to realize financial well-being must be realized by Bidikmisi scholarship recipients because they are faced with financial limitations that will cause pressure in financial management and feelings of stress about their financial condition, as well as the hope of financial security to meet needs continuously (Netemeyer et al., 2018).

Students' ability to manage finances can be formed through their understanding of financial literacy (Waluyo & Marlina, 2020) which is obtained from the financial learning process (Rahmayani et al., 2022). The results of this study indicate that accounting learning does not directly affect students' ability to manage their finances but rather indirectly through their financial attitudes. These results explain that the results of accounting learning will shape students' financial literacy and become a stimulus in determining attitudes towards the financial problems they face so that they try to manage their finances as well as possible.

Through accounting learning, students learn various basic financial concepts and financial recording techniques as well as analyzing expenses and income (Herawati, 2015). Financial literacy resulting from the accounting learning process will form a positive attitude towards finances to spend them based on needs and not because of desires (Setiawati, 2017). Students concerned about financial problems will try to manage them well by making plans according to their needs, being consistent in spending finances based on planning, saving using money, and evaluating to make improvements (Usman & Suruan, 2020); (Wahyuni et al., 2022). Students' weaknesses in managing their finances will have an impact on consumer behavior (Kuswanto et al., 2024).

The literature on the influence of accounting learning, financial attitudes, and financial management of students shows a variety of findings that are sometimes contradictory. Some studies state that accounting learning directly affects financial literacy and financial attitudes of students, which then have an impact on better financial management (Potrich et al., 2016) ; (Stolper & Walter, 2017) . For example, research by (Kuswanto, 2019) shows that accounting learning can significantly increase financial literacy and indirectly affect students' financial behavior.

However, other findings state that the direct effect of accounting learning on students' financial management tends to be insignificant or weak, and that the effect is stronger when mediated through mediating variables such as financial attitudes (Susanti, 2017) ; (Waluyo & Marlina, 2020). These results are consistent with the theoretical framework that financial attitudes as an intervening variable have an important foundation in bridging financial knowledge and behavior.

In addition, some studies show inconsistent results related to the direct influence of accounting learning on financial management, where several studies state that other factors such as personality, experience, and family environment also have a dominant influence (Napitupulu et al., 2021); (Khoirunnisa & Rochmawati, 2021). This finding confirms that accounting learning is not the only determining factor, and its success is highly dependent on contextual and individual factors.

In general, these differences in results confirm that the relationship between accounting learning, financial attitudes, and financial management is not linear and simple. Instead, this relationship is influenced by various complex moderating and mediating variables. Therefore, this study supports that financial attitudes play a key role as a mediating variable in the influence of accounting learning on students' financial management, while also emphasizing the need for a holistic and contextual approach in the study of student finance.

Conclusion

This study confirms that accounting learning plays an important role in shaping students' financial attitudes, which ultimately affects their financial management skills. These results add to the literature on the importance of developing accounting and finance-based curricula at the college level. However, the main limitation of this study is the limited sample size, which only came from Jambi University students who received Bidikmisi scholarships, so the results cannot be generalized widely to other student populations.

Recommendations

Practically, for educators, it is recommended to redesign the accounting course curriculum to be more oriented towards developing students' financial attitudes. This approach can be done by inserting modules on financial literacy, bias towards aspects of financial behavior, and using interactive and applicable learning methods so that students not only understand the concept, but are also able to apply a positive attitude towards financial management. In addition, it is recommended for educational institutions to develop workshop or training programs that focus on aspects of financial attitudes and behavior, and strengthen collaboration with various related parties to create an ecosystem that supports broader financial literacy. For further research, it is recommended to repeat this study in various universities and different student populations, and involve other relevant moderating variables so that this relationship model can be tested more comprehensively and applicatively.

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Author (s) Contribution Rate

Kuswanto - drafted the article (100%). Neneng Anjarwati - collected research data; analyzed data and discussion (80%)

Ethical Approval (only for necessary papers)

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Examining the Relationship between Mothers' Self-Compassion Levels and Children's Loneliness

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Abstract

Purpose of the research is to examine the predictive effect of self-compassion levels of preschool period children's mothers over children's loneliness levels. The research was conducted with 196 children, between the ages of 60-72 months and who are attending preschool education in a metropolis in the South-eastern Anatolia Region, and their mothers. In this quantitatively designed study, the relational screening model was used. The Personal Information Form, Self-Compassion Scale and Children's Loneliness and Dissatisfaction Scale were adapted in the research. According to the research results; there is a negative, high level and significant relationship between self-compassion, self-kindness and common humanity levels of mothers and loneliness levels of preschool period children. There is a positive, high level and significant relationship between self-judgement, isolation and over-identification levels of mothers and loneliness of children. Research findings indicate that mothers' self-compassion is associated to and predicts loneliness of preschool period children. In light of the information in the literature, results of this study can be interpreted as the mother's self-compassion towards herself may reduce the child's level of loneliness by positively affecting her relationship with her child. Since there is not enough research on the subject in Türkiye, it is thought that the findings will have significant contributions to the literature.

Keywords: Self-compassion, Loneliness, Preschool period, Mother-child relationship

Citation

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Introduction

The preschool period is a critical period that is very effective in the psychosocial development of the child. One of the factors that can affect the emotional and social development of the child is the emotional psychological state of the mother, who is the child's caregiver during this period (Öngider, 2013). There are many effects of the mother-child relationship over the child (Tezel Şahin, 2014). It is stated that the most important role in the child's development of a healthy emotional identity falls to the mother (or primary caregiver) (Dalgat et al., 2022). Previous research (Doksat and Çiftçi, 2016; Gülay Ogelman et al. 2013; Mikulincer and Shaver, 2007; Pianta, Nimetz and Bennet, 1997; Solomon and George, 2011) shows that a healthy relationship between the mother and child positively affects the child's social adaptation and emotional development. Meeting the child's needs on time and adequately during this relationship between the mother and child positively affects the child's sense of confidence, thus prepares the child to be open to new interactions and experiences. The mother-child relationship affects the child's way of perceiving the world, problem-solving skills and social relationships (Ainsworth and Bowlby, 1991; Türköz, 2007).

Considering the inadequacy of studies on the subject in the literature, it was found important to examine self-compassion in the context of family and preschool children's development. In this context, the predictive effect of the self-compassion levels of mothers of preschool children on the children's loneliness levels was investigated.

The interaction within the family directly affects the child's behaviours (Önder and Gülay, 2007). During this interaction process, the mother's reactions, stress level, and emotional state may cause similar reactions on the children (Hollenstein et al., 2017). During the preschool period, where mothers are important role models for children, mothers' methods of coping with stress, methods of solving social problems and ability to show compassion towards themselves are determinant in children's ability to have such skills (Abraham and Kerns, 2013; Moreira et al. 2015). Adequate care given by the mother is effective in the development of the child's self-esteem and self-perception (Hopkins and Klein, 1993). Research shows that children's self-perception is influenced more by their mothers' parenting rather than their actual value. This is related to Charles Horton Cooley's (1902) "Looking-Glass Self" theory (Tomasetto et al., 2015). Cooley was working to develop the idea that the self is actually a social construct. During these studies Cooley used mirror images to show people how they appear to others and how they incorporate what they imagine into their own self-concept (Dunn, 2007). Looking-glass self; "Refers to the process by which an individual defines his or her self by reflecting the reactions and attitudes of other people." (Zengin, 2024). The concept is included in the literature as "reflected self" or "reflected evaluation" (Ochsner et al., 2005). Looking-glass Self functions as a magnifying glass for one's self-perception, thus, what the child sees in his/herself through his/her parent's eyes has a significant impact on self-development (Tice, 1992). In reflected evaluation children see their mother as their mother evaluates herself. For this reason, it is considered that the mother's self-improvement in every sense and her mental and physical health will have an impact on the child. At this point, one of the important concepts is the concept of self-compassion. Self-compassion is defined as entailing three main components that are being compassionate to oneself, common humanity and mindfulness; the individual displaying a kind attitude towards oneself against difficult instances and emotions, accepting that others also undergo these difficult experiences and understanding his/her feelings and thoughts with awareness (Neff, 2003; Neff, 2009). Self-compassion can be referred to as the affection an individual feels for oneself as a way to manage his/her own feelings and thoughts about him/herself more healthily (Gilbert, & Procter, 2006). Showing compassion to oneself refers to the individual being aware of his/her own pain, showing kindness and understanding to oneself, desiring his/her own well-being, displaying a non-judgemental attitude to oneself against shortcomings and failure (Neff, 2003). Self-compassion can provide an important protective function for the individual when faced with difficulties (Cary and Felter, 2020). Neff (2003), who has conducted remarkable studies on the subject, defines self-compassion as a self-reflective process involving several theoretical facets, each of which have a positive and negative pole that distinguishes between compassionate and uncompassionate behaviour. Neff marks these facets as 1) self-kindness and self-judgment, 2) isolation and a sense of common humanity, and 3) mindfulness and over-identification (Neff, 2003). The concept consists of six key components organized into three bipolar dimensions; these are, self-kindness versus self-judgment (refers to the tendency to be accepting, kind and noncritical toward oneself when the individual experiences a suffer, failure, or feels inadequate rather than ignoring the pain or adopting a self-judgmental and self-critical attitude), common humanity versus isolation (refers to the individual seeing his/her own experiences as part of the larger human experience rather than seeing them as separate and isolating), and mindfulness versus over-identification (refers to the individual maintaining his/her painful thoughts and feelings in balanced awareness rather than over-identifying with them) (Neff, 2003). In order to develop self-compassion as a well-being strategy, the focus must be on positive components (self-kindness, common humanity and mindfulness) rather than negative components (self-judgement, isolation and over-identification) (Neff & Faso, 2015). The Self-Compassion Scale, developed by Neff, was used in this study.

While there are various factors such as emotional intelligence (Di Fabio and Soflakske, 2021), life satisfaction (Yang, Zhang and Kou, 2016), gender (Yarnel et al., 2015) and age (Bluth et al., 2017) in the development of

individuals' self-compassion, mother's attitude is also crucial (Burns and Maritz, 2015; Yılmaz, 2009). Studies carried out with mothers and fathers indicate that depression, anxiety, stress management and awareness of parents improve as their self-compassions develop (Jefferson, Shires and McAloon, 2020). Self-compassion of the mother indirectly affects the child's life quality (Moreira et al., 2015). A mother with high self-compassion supports her own emotional health and also reflects this compassionate approach to her relationship with her children. Children observe their mothers' emotional reactions against challenging situations and develop their own emotion regulation strategies based on these reactions. The emotional education the child receives directly from the mother or indirectly by observing will have an impact on his/her emotional health (Mutlu, 2020; Sille, 2016; Şepitci Sarıbaş and Tezel Şahin, 2021). Teaching parents to be self-compassionate can facilitate a more compassionate approach towards parenting. Also, it can help parents accept their imperfections, accept that feeling overwhelmed is normal and that negative experiences are universal (Pollack, 2019). New mothers who receive self-compassion training observe improvements in their birth and breastfeeding difficulties and their general mental health (Lennard, Mitchell and Whittingham, 2021; Mitchell et al., 2018). Mothers with high self-compassion are emotionally resilient, stable, able to protect themselves and are more understanding towards themselves, thus, these characteristics may be reflected in their children (Neff, 2011; Petersen, 2014). Development of self-compassion promotes relational and emotional well-being (Lathren et al., 2021). In a research conducted by Psychogiou et al. (2016), it was determined that parents with high levels of self-compassion are more likely to attribute their children's behaviours to external factors than parents with low self-compassion levels. Also, these parents were less critical of their children and had less distressing responses when coping with their children's emotions. Thus, various emotional difficulties may occur in children who fail to develop self-compassion. One of the emotional difficulties encountered during childhood is loneliness.

Loneliness is a painfully, complex emotional experience resulting from deficiencies in the quality and quantity of social relationships that involve interpersonal, systemic and emotional components (Hymel et al., 1999; Weeks and Asher, 2012). Loneliness occurs when an individual becomes aware that his/her interpersonal relationships are inadequate or unjust (Evans et al., 2023). Although children's loneliness experiences are relatively common and temporary during their development periods, persistent (chronic) loneliness has been associated with psychological consequences that have negative effects on development (Qualter et al., 2010). Research shows that childhood loneliness is associated with emotional problems such as shyness, aggression, destructive behaviour and adult psychological problems (Qualter and Munn, 2002; Xerxa et al., 2023). In addition, childhood loneliness affects peer relationships and accordingly the child's emotional well-being (Asher and Paquette, 2003). The feeling of loneliness can be caused by many factors such as social rejection, peer bullying or lack of domestic emotional support. It is believed that receiving adequate emotional support may have a protective effect for children experiencing loneliness. For this reason, studies on self-compassion, which affects the mother's emotional support capacity, and the child's loneliness have been investigated; the effect of the mother on the child has not been found in the literature, but in researches examining loneliness along with self-compassion in adults, these two concepts have been observed to be related (Akın, 2010; Borawski and Nowak, 2022). The majority of the researches have been carried out with adolescents (San Şentürk, 2010), adults (DiTommaso et al., 2003) and elders (Pinquart and Sorensen, 2001); studies on young children remain inadequate. However, no study has been found in Türkiye examining the relationship between mothers' self-compassion levels and preschool children's loneliness. In addition, Cheung, Li and Ho (2022) underline that little research has been conducted to understand the role of self-compassion in the family context. Psychogiou et al. (2016) state that there is a gap in the literature concerning parents' self-compassion and that more studies should be conducted. Based on the literature review, because it is important to examine self-compassion in the context of family and preschool period children's development, this study is considered to contribute to both national and also international literature. The findings can guide future studies on both parental self-compassion and child loneliness variables. Addressing the loneliness of young children in terms of parental variables will also be important with respect to experimental studies that can be conducted on the subject. Considering the speed of development during early years of life, the need to diversify research on preschool children becomes evident. Since mothers and fathers have great importance in the life of children, examining development with respect to parental variables can make it easier to recognize children. With this respect, the predictive effect of self-compassion levels of preschool period children's mothers over children's loneliness levels has been investigated. Thus, answers for the following questions were sought:

1. Is there a statistically significant relationship between self-compassion levels of preschool period children's mothers and children's loneliness?
2. Do self-compassion levels of the mothers of preschool period children significantly predict loneliness of the children?
3. Is there a statistically significant relationship between self-kindness levels of preschool period children's mothers and children's loneliness?

4. Do self-kindness levels of the mothers of preschool period children significantly predict loneliness of the children?
5. Is there a statistically significant relationship between self-judgement levels of preschool period children's mothers and children's loneliness?
6. Do self-judgement levels of the mothers of preschool period children significantly predict loneliness of the children?
7. Is there a statistically significant relationship between common humanity levels of preschool period children's mothers and children's loneliness?
8. Do common humanity levels of the mothers of preschool period children significantly predict loneliness of the children?
9. Is there a statistically significant relationship between isolation levels of preschool period children's mothers and children's loneliness?
10. Do isolation levels of the mothers of preschool period children significantly predict loneliness of the children?
11. Is there a statistically significant relationship between over-identification levels of preschool period children's mothers and children's loneliness?
12. Do over-identification levels of the mothers of preschool period children significantly predict loneliness of the children?

Method

Research Design

The relational screening method was used in the research. The relational screening method is an approach used for understanding the relationships between research variables (Karasar, 2005).

Study Group

In the research, the study group was determined through the convenience sampling method. The research was conducted with 196 children, between the ages of 60-72 months and who are attending preschool education in a metropolis in the South-eastern Anatolia Region, and their mothers. Since the research required individual application on the children, children attending preschool education and their mothers were preferred. In addition, 196 mothers and their children were reached after obtaining their consent to participate in the research. Demographic information related to the participants is given on Table 1.

Table 1. Demographic information of the participants

	Variables	f	%
Child's gender	Boy	97	49.5
	Girl	99	50.5
Mother's educational status	Illiterate	21	10.7
	Literate	18	9.2
	Primary school graduate	79	40.3
	Secondary school graduate	52	26.5
	High school graduate	21	10.7
	University graduate	5	2.6
Father's educational status	Illiterate	6	3.1
	Literate	12	6.1
	Primary school graduate	63	32.1
	Secondary school graduate	66	33.7
	High school graduate	37	18.9
	University graduate	12	6.1
Mother's age	20-30	93	47.4
	31-40	91	46.4
	41 years old and over	12	6.1
Father's age	20-30	43	21.9
	31-40	132	67.3
	41 years old and over	21	10.7
School type	Kindergarten affiliated with a primary school	162	82.7
	Kindergarten affiliated with a secondary school	34	17.3

97 (49.5%) of the children participating in the research are girls and 99 (50.5%) are boys. 21 (10.7%) of the mothers participating in the research are illiterate, 18 (9.2%) are literate, 79 (40.3%) are primary school graduate, 52 (26.5%) are secondary school graduate, 21 (10.7%) are high school graduate and 5 (2.6%) are university graduate. 6 (3.1%) of the fathers participating in the research are illiterate, 12 (6.1%) are literate, 63 (32.1%) are primary school graduate, 66 (33.7%) are secondary school graduate, 37 (18.9%) are high school graduate and 12 (6.1%) are university graduate. 93 (47.4%) of the mothers participating in the research are between 20-30 years old, 91 (46.4%) are between 31-40 years old and 12 (6.1%) are 41 years and older. 43 (21.9%) of the fathers participating in the research are between 20-30 years old, 132 (67.3%) are between 31-40 years old and 21 (10.7%) are 41 years and older. 162 (82.7%) of the participant children attend a kindergarten affiliated with a primary school, 34 (17.3%) attend a kindergarten affiliated with a secondary school.

Data Collection Tools

Personal Information Form

The personal information form was developed by the researchers so as to gather demographic information about the children and their families. The form consists of information about the children's school, gender, age, mother's educational status, father's educational status, mother's age, father's age, mother's profession, father's profession, number of siblings and sibling's gender.

Self-Compassion Scale

The scale was originally developed by Neff (2003) and adapted into Turkish by Akın, Akın and Abacı (2007). The Turkish form consists of 26 items, as does the original form of the scale. The scale includes 6 sub-dimensions; self-kindness, self-judgement, common humanity, isolation, mindfulness and over-identification. High scores obtained by the individual from each sub-scale indicate that the individual has the characteristics evaluated by the relevant sub-scale. Scoring of the scale is done separately for each sub-dimension. The scale also provides a total self-compassion score. The internal consistency coefficients of the scale were observed to be .77 for the self-kindness sub-scale, .72 for self-judgement, .72 for common humanity, .80 for isolation, .74 for mindfulness and .74 for over-identification (Akın, Akın and Abacı, 2007). The Cronbach's Alpha internal consistency coefficients of this study were observed to be .71 for self-kindness, .77 for self-judgement, .75 for common humanity, .74 for isolation, .65 for mindfulness, .74 for over-identification and .93 for total self-compassion.

Children's Loneliness and Dissatisfaction Scale

The Turkish adaptation of the Children's Loneliness and Dissatisfaction Scale, created originally by Cassidy and Asher (1992), was carried out by Yazıcı, Duyan and Gelbal (2013). The scale is used to measure loneliness and dissatisfaction levels of preschool period children. There are a total of 23 items in the Loneliness and Social Dissatisfaction Scale. The scale has one dimension. High scores obtained from the scale refer to a high loneliness and social dissatisfaction level; low scores refer to a low loneliness and social dissatisfaction level. The internal consistency coefficient of the scale is .759 and the reliability coefficient measured through the test-retest method is .85 (Yazıcı, Duyan and Gelbal, 2013). The Cronbach's Alpha internal consistency coefficient of this study was observed to be .86.

Data Collection

Ethics committee permission was received from the Board of Ondokuz Mayıs University Social and Human Sciences Research Ethics Committee (decision numbered 2023-67, date 24.02.2023). Information about the data collection tools and process was given to teachers and mothers prior the data collection process. For the research, the Personal Information Form was filled in by preschool teachers and the Self-Compassion Scale was filled in by mothers of the children. The Loneliness Scale was conducted by one of the researchers through individual interviews. The interviews, which were held in a room outside the classroom environment with appropriate conditions in terms of sound, temperature and light, lasted between 15-20 minutes. The data collection process took almost 4 months.

Data Analysis

Data analysis was carried out by using SPSS 20.0 statistical package program. Before data analysis, whether or not the variables have normal distribution was determined based on the kurtosis and skewness values. Because the mindfulness sub-dimension of the Self-Compassion Scale had an internal consistency coefficient under .70 (.65), it wasn't included in the research. At this point, the kurtosis value of the Self-Kindness sub-dimension of the Self-Compassion Scale ranged between 1.477 and .346, the skewness value ranged between -1.143 and .174; the kurtosis value of the self-judgement sub-dimension ranged between .787 and .346, the skewness value ranged between .918 and .174; the kurtosis value of the common humanity sub-dimension ranged between .407 and .346, the skewness value ranged between -.587 and .174; the kurtosis value of the isolation sub-dimension ranged between .862 and .346, the skewness value ranged between 1.130 and .174; the kurtosis value of the over-identification sub-dimension ranged between 1.500 and .346, the skewness value ranged between 1.253 and .174; the kurtosis value of total self-compassion ranged between 1.489 and .346, the skewness value ranged between -1.313 and .174; the kurtosis value of total loneliness ranged between .940 and .346, the skewness value ranged between .772 and .174. As a result of the normality test, it was observed that the study data were normally distributed and parametric tests were applied. The Pearson Product Moment Correlation Coefficient and Simple Linear Regression Analyses were applied during the data analysis process. The Pearson correlation coefficient measures the strength of the linear relationship between two variables. If there are strong linear relationships between the variables the correlation coefficient is 1 or close to -1. A result of 0 indicates that there is no linear relationship (Deprez and Robinson, 2022). Simple linear regression is used to model the relationship between two continuous variables. The purpose here is to predict the value of an output variable (or response) based on the value of an input (or predictive) variable (Statistical Discovery, 2025).

Ethics approval notification

All data collection and storage procedures were approved by the Board of Ondokuz Mayıs University Social and Human Sciences Research Ethics Committee (decision numbered 2023-67, date 24.02.2023)

Results and Discussion

Table 2 presents the statistics concerning the relationship between total self-compassion levels of preschool period children's mothers and children's loneliness.

Table 2. Relationship between Preschool Period Children's Mothers' Total Self-Compassion Levels and Children's Loneliness

Variables	N	\bar{X}	sd	r
Mothers' self-compassion levels	196	3.56	0.81	-
Children's loneliness levels	196	25.98	5.29	-.799*

*p<.001

According to Table 2, there is a negative, high level and significant relationship between total self-compassion levels of mothers and loneliness levels of children ($r=-.799$; $p<.001$). According to this result, children's loneliness decreases as total self-compassion levels of mothers increase; children's loneliness increases as total self-compassion levels of mothers decrease.

Table 3 presents total self-compassion levels of preschool period children's mothers and findings concerning whether they significantly predict loneliness of the children.

Table 3. Regression on Total Self-Compassion Levels of Preschool Period Children's Mothers Predicting Children's Loneliness

Variables	B	Std. error	β	t	p
Self-Compassion	-.122	.007	-.799	-18.502	.000*
Loneliness					
$R=.799$, $R^2=.638$, $F(1,194)=342.337$					

*p<.001

With respect to the data on the table, it is evident that total self-compassion levels of the mothers of preschool period children ($\beta=-.799$, $p<.001$) significantly predict children's loneliness.

Table 4 presents statistics concerning the relationship between self-kindness levels of preschool period children's mothers and children's loneliness.

Table 4. Relationship between Self-Kindness Levels of Preschool Period Children's Mothers and Children's Loneliness

Variables	N	\bar{X}	sd	r
Mothers' self-kindness levels	196	3.48	.83	-
Children's loneliness levels	196	25.98	5.29	-.751*

*p<.001

According to Table 4, there is a negative, high level and significant relationship between self-kindness levels of mothers and loneliness levels of children ($r=-.751$; $p<.001$). According to this result, children's loneliness decreases as self-kindness levels of mothers increase; children's loneliness increases as self-kindness levels of mothers decrease.

Table 5 presents self-kindness levels of preschool period children's mothers and findings concerning whether they significantly predict loneliness of the children.

Table 5. Regression on Self-Kindness Levels of Preschool Period Children's Mothers Predicting Children's Loneliness

Variables	B	Std. error	β	t	p
Self-Kindness	-.119	.007	-.751	-15.862	.000*
Loneliness					
$R=.751$, $R^2=.565$, $F(1,194)=251.607$					

*p<.001

When data on the table are considered, it is evident that self-kindness levels of the mothers of preschool period children ($\beta=-.751$, $p<.001$) significantly predict children's loneliness.

Table 6 presents statistics concerning the relationship between self-judgement levels of preschool period children's mothers and children's loneliness.

Table 6. Relationship between Self-Judgement Levels of Preschool Period Children's Mothers and Children's Loneliness

Variables	N	\bar{X}	sd	r
Mothers' self-judgement levels	196	2.57	0.82	-
Children's loneliness levels	196	25.98	5.29	.723*

*p<.001

According to Table 6, there is a positive, high level and significant relationship between self-judgement levels of mothers and loneliness of children ($r=.723$; $p<.001$). According to this result, children's loneliness increases as self-judgement levels of mothers increase; children's loneliness decreases as self-judgement levels of mothers decrease.

Table 7 presents self-judgement levels of preschool period children's mothers and findings on whether they significantly predict children's loneliness.

Table 7. Regression on Self-Judgement Levels of Preschool Period Children's Mothers Predicting Children's Loneliness

Variables	B	Std. error	β	t	p
Self-judgement	.113	.008	.723	14.591	.000*
Loneliness					
$R=.723$, $R^2=.523$, $F(1,194)=212.884$					

*p<.001

It is evident on Table 7 that self-judgement levels ($\beta=.723$, $p<.001$) of preschool period children's mothers significantly predict loneliness of the children.

Table 8 presents the statistics concerning the relationship between common humanity levels of preschool period children's mothers and children's loneliness.

Table 8. Relationship between Common Humanity Levels of Preschool Period Children's Mothers and Children's Loneliness

Variables	N	\bar{X}	sd	r
Mothers' common humanity levels	196	3.42	0.83	-
Children's loneliness levels	196	25.98	5.29	-.704*

*p<.001

It is evident on Table 8 that there is a negative, high level and significant relationship between common humanity levels of mothers and loneliness levels of children ($r=-.704$; $p<.001$). According to this result, children's loneliness decreases as common humanity levels of mothers increase; children's loneliness increases as common humanity levels of mothers decrease.

Table 9 presents common humanity levels of preschool period children's mothers and findings on whether they significantly predict children's loneliness.

Table 9. Regression on Common Humanity Levels of Preschool Period Children's Mothers Predicting Children's Loneliness

Variables	B	Std. error	β	t	p
Common humanity	-.111	.008	-.704	-13.813	.000*
Loneliness					
$R=.704$, $R^2=.496$, $F(1,194)=190.795$					

*p<.001

According to Table 9, it is evident that common humanity levels ($\beta=-.704$, $p<.001$) of preschool period children's mothers significantly predict loneliness of the children.

Table 10 presents statistics concerning the relationship between isolation levels of preschool period children's mothers and children's loneliness.

Table 10. Relationship between Isolation Levels of Preschool Period Children's Mothers and Children's Loneliness

Variables	N	\bar{X}	sd	r
Mothers' isolation levels	196	2.29	1.05	-
Children's loneliness levels	196	25.98	5.29	.710*

*p<.001

According to Table 10, there is a positive, high level and significant relationship between isolation levels of mothers and children's loneliness ($r=.710$; $p<.001$). This result shows that children's loneliness increases as isolation levels of mothers increase; children's loneliness decreases as isolation levels of mothers decrease.

Table 11 presents isolation levels of preschool period children's mothers and findings on whether they significantly predict loneliness of the children.

Table 11. Regression on Isolation Levels of Preschool Period Children's Mothers Predicting Children's Loneliness

Variables	B	Std. error	β	t	p
Isolation	.141	.010	.710	14.025	.000*
Loneliness					
$R=.710$, $R^2=.503$, $F(1,194)=196.707$					

*p<.001

It is evident on Table 11 that isolation levels ($\beta=.710$, $p<.001$) of preschool period children's mothers significantly predict loneliness of the children.

Table 12 presents the statistics concerning the relationship between over-identification levels of preschool period children's mothers and children's loneliness.

Table 12. Relationship between Over-Identification Levels of Preschool Period Children's Mothers and Children's Loneliness

Variables	N	\bar{X}	sd	r
Mothers' over-identification levels	196	2.34	1.01	-
Children's loneliness levels	196	25.98	5.29	.770*

*p<.001

Table 12 suggests a positive, high level and significant relationship between over-identification levels of mothers and loneliness of children ($r=.770$; $p<.001$). This result shows that children's loneliness increases as over-

identification levels of mothers increase; children's loneliness decreases as over-identification levels of mothers decrease.

Table 13 presents over-identification levels of preschool period children's mothers and findings on whether they significantly predict loneliness of the children.

Table 13. Regression on Over-Identification Levels of Preschool Period Children's Mothers Predicting Children's Loneliness

Variables	B	Std. error	β	t	p
Over-Identification Loneliness	.148	.009	.770	16.824	.000*
R=.770, R ² =.593, F(1,194)=283.047					

*p<.001

It is evident on Table 13 that over-identification levels (β =.770, p<.001) of preschool period children's mothers significantly predict children's loneliness.

Discussion

The predictive effect of self-compassion levels of preschool period children's mothers over children's loneliness levels has been investigated in this research. Five among the six sub-dimensions of the Self-Compassion Scale, used for collecting data, were included in the study. Because the internal consistency coefficient the mindfulness sub-dimension was below .70, it wasn't included in the research. A relationship was found between all of the sub-dimensions included in the research and the mothers' total self-compassion and children's loneliness levels; all of the sub-dimensions were observed to have a predictive effect on children's loneliness levels.

According to the research there is a negative, high level and significant relationship between self-compassion, self-kindness and common humanity levels of mothers and loneliness levels of preschool period children. According to this result, children's loneliness decreases as self-compassion, self-kindness and common humanity levels of mothers increase; children's loneliness increases as self-compassion, self-kindness and common humanity levels of mothers decrease. In addition, it is evident that self-compassion, self-kindness and common humanity levels of mothers significantly predict loneliness of the children.

There is a positive, high level and significant relationship between self-judgement, isolation and over-identification levels of mothers and children's loneliness. This result shows that children's loneliness increases as self-judgement, isolation and over-identification levels of mothers increase; children's loneliness decreases as self-judgement, isolation and over-identification levels of mothers decrease. It was observed that self-judgement, isolation and over-identification levels of mothers significantly predict children's loneliness.

Research findings indicate that mothers' self-compassion is associated with and predicts loneliness levels of preschool period children. While total self-compassion level of mothers is the variable that mostly predicts loneliness levels of young children, common humanity level is the variable that least predicts them.

When research results are considered in general, children's loneliness can decrease as affection and compassion levels of mothers towards themselves are high. At this point, it can be stated that mothers' positive perceptions of themselves may support the positive perception of their children. Hence, self-compassion is regarded to be associated with parenting behaviours. For example, self-compassion can help parents recognize, allow and move away from negative thoughts; thus, they become more conscious and less reactive to negative thoughts. This may increase their ability to respond compassionately to their child's needs. For this reason, self-compassion can strengthen interpersonal relationships (Lathren et al., 2021). Self-compassion supports abandoning negative behaviours and undertaking necessary but difficult actions to increase overall well-being (Neff, 2003). Kabat-Zinn and Kabat-Zinn (1998) state that self-compassion enables parents to act on the basis of recognizing, understanding and avoiding reactive and negative thoughts. In light of the information in the literature, results of this study can be interpreted as the mother's self-compassion towards herself may reduce the child's level of loneliness by positively affecting her relationship with her child. In one of the findings that supports this statement, Psychogiou et al. (2016) underline that parents with high levels of self-compassion may be inclined to attribute the cause of their children's behaviour to external factors, be less critical of them and react in a less distressed manner when coping with their children's emotions. In addition, parental self-compassion has long been associated with children's introverting and extroverting problems. Findings considering that many characteristics of mothers affect the development of preschool period children's development can be diversified. For example, according to the study on 381 preschool aged children and their mothers conducted by Samangül (2023), there is a positive relationship between children's well-being and mothers' democratic attitudes and a negative relationship between their oppressive authoritarian attitudes. However, a negative relationship was observed between children's well-

being and mothers' emotion regulation difficulties. In a study conducted by Güler Kılıç and Çekiç (2022) on 250 children and their parents, a negative correlation was observed between mothers' child involvement and positive parenting behaviours; and a positive correlation was observed between poor parental monitoring, inconsistent discipline and punishment behaviour with beatings and children's behaviour problems. In a study conducted by Gürses, Aktan and Ülkümen (2024) on 659 mothers with 48-72 months-old children, it was determined that mothers' psychological resilience levels positively and significantly predict children's emotion regulation skills; mothers' supportive emotion socialization strategy levels positively and significantly predict children's emotion regulation skills; mothers' unsupportive emotion socialization strategy levels negatively and significantly predict children's emotion regulation skills.

In this study, a relationship and predictive effect was observed between self-judgement, isolation and over-identification levels of mothers and children's loneliness. Findings reveal that positive characteristics related to mothers' self-compassion reduce children's loneliness, and negative characteristics increase loneliness. Findings are in line with the literature. That is, various difficulties experienced during parenting can affect both the health of the parent, the quality of parenting, and the health and well-being of children (McCue Horwitz, 2007). Parents' compassion to themselves can affect their children's development directly as well as indirectly. In their study with 214 children and their mothers, Larrucea-Iruretagoyena, Orue and Calvete (2024) emphasize that the mother's self-compassion has a mediating effect between children's emotion regulation difficulties and parents' depression. Similarly, it has been stated that children's emotional regulation difficulties may increase the risk of depression symptoms in parents, but parental self-compassion may moderate this relationship. In the study conducted by Zhu et al. (2023) on 2282 preschool aged Chinese children and their mothers, it was observed that mothers' self-compassion had a mediating effect, along with emotional dysregulation, between the child's behavioural problems and the mothers' negative childhood experiences. At this point, it is stated that mothers' self-compassion and emotional regulation play a crucial role between the mother's negative childhood experiences and the child's behavioural problems. Self-compassion is an important psychological resource that can help parents feel less stress in their relationships with their children and cope better with negative emotions. Also, self-compassion can encourage more attentive and compassionate parenting; and this is associated with more positive parenting behaviours and better adjustment of the child at various levels (Moreira, 2023).

Conclusion

It is evident that the impact of mothers on the development of preschool period children is also revealed via the concept of self-compassion. Gouveia et al. (2016) state that self-compassion in parents is vital to protect and maintain the psychological health of the family, and that parents' compassion towards themselves can help them better cope with conditions that lead to stress and uncertainty, both individually and as a family. Previous studies on the subject (Fernandes, Canavarro and Moreira, 2021; Potharst, Zeegers and Bögels, 2021; Psychogiou et al., 2016) have underlined that mothers' self-compassion is related to parenting attitudes, children's attachment style, introvert and extrovert behaviour problems and children's general adjustment. At this point, it can be stated that the research findings are consistent with the literature.

Recommendations

Although the findings of the research show consistency with the self-compassion literature, it is possible to offer various suggestions in line with the limitations and findings. First of all, findings reveal that mothers' self-compassion is an important element in the emotional and social development of preschool period children towards loneliness. As a result of a literature review, no directly overlapping studies were found on the subject both in Türkiye and internationally, and therefore, many sample studies could not be included in the discussion section. For this reason, it can be stated that research on the effects of mothers' self-compassion on the development of preschool period children should be widespread. In addition, it can be asserted that it is important to plan experimental research and develop programs for mothers-fathers in future studies on the subject. When the literature is taken into consideration, it is evident that when parenting interventions include self-compassion, it increases parents' self-compassion and awareness, and reduces depression, anxiety and stress (Jefferson, Shires and McAloon, 2020). In addition, it is suggested that self-compassion may help parents develop more accepting and tolerant responses to their children's behaviours and negative emotions (Neff and Faso, 2015). Research findings proved that findings related to the Mindfulness sub-dimension of the Self-Compassion Scale are unreliable, thus, this sub-dimension was not included in the study. It is considered that enriching studies on the subject in terms of samples and variables may provide additional validity and reliability findings in the evaluations of the sub-dimensions and total score of the scale. Measurement tools for parents' self-compassion can be developed with a sample of Türkiye. Mothers were included in this research, and it can be stated that including fathers as well as mothers in similar studies can diversify the findings. It can be emphasized that longitudinal studies may be beneficial in revealing the long-term effects of parents' self-compassion on their children's

development. Increasing studies on loneliness of preschool children may support revealing detailed information about the emotional and social development of young children. In line with the study limitations, it can be stated that studies conducted in different provinces and with larger sample groups can diversify the findings. In line with the findings obtained from this research, it can be asserted that intervention studies that will support self-compassion of mothers are necessary. Support programs can be planned for mothers-to-be and mothers about the subject. Preschool teacher candidates can be informed about the subject. Therefore, they will be able to provide guidance to families about the individual characteristics of mothers that can have an impact on the professional life of their children.

Author (s) Contribution Rate

Hülya Gülay Ogelman: Article writing, data analysis (40%).

İlkay Gökteş: Research planning, data analysis, article writing (40%).

Döne Kahveci: Data collection, data entry, article writing (20%).

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A Phenomenological Study on the Difficulties of Ukrainian Immigrants in Learning Languages

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Abstract

Individuals or groups are forcibly displaced due to economic problems, wars, terrorism, political conflicts, and discrimination based on gender, ethnicity, or religion. War-induced migration often leads to movement towards neighboring countries, creating challenges for host nations like housing, healthcare, basic needs, and education. Similarly, the Russia-Ukraine War, starting in 2022, led many Ukrainians to migrate to Türkiye and required them to learn Turkish, along with their efforts to work and continue their education in Türkiye. This study aims to identify Ukrainian students' challenges when learning Turkish and Turkish instructors' experiences and problems when teaching Turkish to these students, which offers solutions to the language learning/teaching process. Hence, to deeply understand Ukrainian students' and Turkish instructors' experiences, we adopted a phenomenological study and gathered the data through focus group discussions with students (n=8) and instructors (n=5). Utilizing the content analysis, the study revealed that Ukrainian students learn Turkish to settle in Turkey, continue their education, and find employment. Notably, both students and instructors indicated difficulties in productive skills due to the lack of practice. Students also find learning Turkish challenging because it belongs to a family of different languages with different alphabets. The study suggested activities to develop students' language skills.

Keywords: Ukrainian migrants, teaching Turkish to foreigners, language learning difficulties, phenomenological study, foreign students

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Introduction

War, one of the significant mass problems, not only affects the country and its citizens in which it occurs but also impacts neighboring countries and their citizens in various ways. War forces the country's citizens to migrate, and these migrating individuals settle in different countries as immigrants. Türkiye is one of the foremost destinations for those immigrants as it is geographically a neighbor of many countries. The economic, political, and social changes in those countries hosting diverse cultures closely concern Türkiye. Located in the Eastern Mediterranean basin, Türkiye holds a significant position as the main gateway to Europe within international migration regimes and as a departure point for migrants from Asia, Africa, and the Middle East. Considering the recent events, political changes and civil wars in nearby countries have led to mass migrations towards Türkiye, and refugees and migrants from different countries have sought refuge in Türkiye.

Recently, Türkiye has been hosting many refugees and migrants from different countries affected by various wars. The Syrian Civil War since 2011 has impacted millions of people and led to a significant influx of refugees into Turkey. Syrians have sought refuge in Türkiye to ensure their safety when leaving their country. Refugees fleeing the civil wars, conflicts, and political instability in Iraq and Afghanistan have also come to Turkey, and it has been going on. Türkiye has also opened its doors to individuals affected by various regional conflicts in Southeastern Europe. Most recently, the Russia-Ukraine War, which has been ongoing since 2022, has caused people to leave their countries to ensure their safety. Türkiye provides international protection to those people fleeing war and conflict. It has offered temporary shelter and aid services to war victims.

The resettlement of refugees and migrants in different regions of Türkiye and their coexistence with the local population has aroused various problems after meeting the basic needs of refugees who came to Türkiye for various reasons. Education stands out as a primary concern among other problems in areas such as economy, health, social integration, and education. For different cultures to live together harmoniously, there should be no communication barriers, and a common language is a must to facilitate understanding and recognition of different cultures. Knowledge of Turkish culture is vital for the integration of both the refugees settling in the country and the local citizens. Learning the language as a means of culture also facilitates understanding and harmony among people from different cultural backgrounds.

Education plays a fundamental role in the social integration of migrant and refugee communities (UNESCO, 2019). Although areas such as economy, health, and social cohesion are also important, education is a primary need in both the short and long term, as it enables individuals to express themselves, exercise their rights, become productive members of society, and build the future of their children (Cummins, 2000). Individuals who do not speak the language face significant obstacles in accessing healthcare services and social assistance; however, overcoming these barriers requires, above all, education—particularly language education (Krashen, 1982). For this reason, education distinguishes itself from other domains and emerges as an overarching priority.

In recent years, Türkiye has received a substantial number of migrants and refugees from different countries, including Syria, Afghanistan, and Ukraine (İçduygu & Millet, 2016). These individuals generally settle in Türkiye without prior knowledge of Turkish. Those who do not speak Turkish encounter difficulties participating in educational processes, accessing public services, and engaging in social life (Aydın & Kaya, 2017). In particular, children experience serious challenges in adapting to school. Therefore, teaching Turkish is of critical importance for ensuring social integration, enabling individuals to independently meet their basic needs, and establishing a common language of communication (Şeker & Sirkeci, 2015).

School-age children who do not speak the language are unable to participate in lessons, experience feelings of failure, and eventually lose interest in attending school (Kaya, 2020). Families also face considerable difficulties in understanding official procedures, accessing healthcare services, and following their children's educational progress (Erdoğan, 2019). The inability to communicate with the local population leads to the social isolation of foreign students, which in turn exacerbates prejudice and social tensions (OECD, 2015). Additionally, teachers experience challenges in classroom management due to language barriers and require greater support in planning the teaching process (Demirtaş & Sertkaya, 2016).

Teaching Turkish facilitates the exercise of the right to education and reduces communication problems. Migrant children who learn the language are able to participate actively in school, increase their motivation for success, and develop a sense of belonging within society (Cummins, 2001). Furthermore, when parents acquire basic

Turkish language skills, it becomes easier for them to benefit from healthcare, legal, and social support services (Aydın, 2019). For these reasons, teaching Turkish constitutes a strategic tool for both individual well-being and social harmony.

As the refugees coming to Türkiye do not speak Turkish, teaching Turkish to foreigners has become crucial during this process, so these people have sought to learn Turkish through their own means or the educational opportunities the Turkish government provides. In Türkiye, Turkish language instruction for foreigners is conducted through various institutions and programs. Many universities in Turkey have established language centers or Turkish and Foreign Languages Research and Application Center (TÖMER) for this purpose. These centers offer courses at various levels, and institutions such as the Ministry of National Education (MoNE) and the Turkish Employment Agency (İŞKUR) also organize Turkish language courses for foreigners. They are typically state-supported courses designed for foreigners officially residing or working in Türkiye. Additionally, private language courses are available throughout Türkiye. Commercial enterprises usually run these private courses, offering Turkish instruction at different levels. Recently, teaching Turkish through online platforms has also become widespread. These platforms, reaching students worldwide, provide interactive and flexible language instruction. Some cultural centers and associations in Türkiye also organize courses to teach Turkish to foreigners. These courses are often supported by cultural activities and provide information about Turkish culture. The various options for teaching Turkish to foreigners in Türkiye address different needs and student profiles. As a result, foreigners coming to Türkiye can benefit from multiple resources to meet their language learning needs and facilitate better communication in the country.

Learning Turkish is considered an essential part of the integration process for refugees or migrants who come to Türkiye for various reasons. The reasons for foreigners to learn Turkish can vary according to their preferences, living conditions, and needs in Türkiye. However, for migrants who want to work or are looking for a job in Türkiye, speaking Turkish might offer a significant advantage in finding employment and pursuing a career (Sofienko, 2019, p. 45). In addition, speaking Turkish allows migrants to benefit more effectively from educational opportunities, especially in the schooling and educational processes of children. Learning the language can also help migrants better understand Turkish culture and society and feel more comfortable in social interactions. Some migrants plan to live in Türkiye long-term or establish a permanent life. In this context, speaking Turkish is critical for understanding local life better and facilitating daily activities.

It is apparent that foreigners, especially those coming to Türkiye due to war or various other reasons, face problems both while learning Turkish and in social life. Turkish, with a structure and grammatical rules different from the languages spoken by foreigners, might be complex for learners. Understanding the various suffixes and phonetic changes in Turkish can be particularly challenging (Karadavut, 2020; Khomeniuk, 2020). Pronunciation is one of the main aspects of speaking, which is a key language skill, and some sounds in Turkish can be difficult for foreigners to pronounce. In particular, pronouncing vowels and consonants correctly requires specific attention (Açık & Takıl, 2019; Kanat, 2022).

Furthermore, Turkish contains many words from different language families, which can make it difficult for foreigners to understand the meanings of some vocabulary or to use them correctly in context (Derman, 2010; Moralı, 2018). The language learning process also involves becoming familiar with the cultural context in which the language is used. Foreigners living in Türkiye may struggle to understand Turkish culture and traditions while learning the language.

Communicating without sufficiently learning or understanding the language can negatively impact daily life and the ability to interact effectively (Demirci, 2015, p. 339). In addition, some language teaching programs or courses may not fully meet the needs of foreign language learners (Ünlü, 2011; Güven & Özbilen, 2020). The adequacy of teaching methods and materials is an important factor in successful language learning. Moreover, the lack of sufficient training and expertise among teachers or instructors may be another problem encountered by learners (Doğan, 2019).

Recently, an interest in learning Turkish has increased both abroad and within Türkiye. Understanding the problems faced by foreigners who want to learn Turkish for various reasons might offer significant benefits both on an individual and societal level. These benefits might include opportunities for foreigners and newcomers to participate actively and effectively within society by facilitating their integration into Türkiye. This study is important as it identifies the problems faced by Ukrainian individuals who came to Turkey due to the war while learning Turkish and adapting to the regions and cultures in which they have settled. It also contributes to the knowledge base by providing suggestions. The findings obtained from the opinions of Ukrainian students and the instructors teaching them Turkish are expected to contribute to the field. This study investigates the challenges

foreigners encounter while learning Turkish in Türkiye, specifically within the context of Ukrainian students who came to Türkiye due to the war. Furthermore, the views of the instructors teaching Turkish to these students have also been utilized to understand the challenges deeply. Both learners and instructors as data sources provide a comprehensive perspective, and no studies have been conducted on Ukrainian students learning Turkish in the knowledge base. Hence, identifying problems and solutions in the Turkish learning/teaching process underlines the importance of this study. The main objective of this study is to identify the difficulties encountered by Ukrainian students who have come to Türkiye due to the war during the process of learning Turkish as a foreign language and to reveal their experiences; furthermore, it aims to develop a comprehensive understanding of the teaching of Turkish as a foreign language by thoroughly examining the experiences gained by Turkish language instructors throughout the instructional process. Within this context, the study questions have been raised as follows:

- What are the purposes of Ukrainian students in Türkiye for learning Turkish?
- What problems do Ukrainian students encounter in Türkiye while learning Turkish as a foreign language?
- What problems do instructors face in Türkiye while teaching Turkish as a foreign language?
- What do learners and instructors of Turkish as a foreign language suggest for the language learning/development process?

Method

Research Design

This study adopts a phenomenological design which focuses on understanding the meaning and content of experienced events (Creswell, 2021, p. 79). Researchers in this design aim to explore the fundamental structures and meaning of these experiences based on the direct experiences of the participants or subjects. The phenomenological design is typically carried out through in-depth and structured interviews, in which participants are asked to describe their specific experiences in detail (Yıldırım & Şimşek, 2013, p. 97). Researchers strive to uncover participants' inner worlds and experiences to understand their lives better. The phenomenological design adopted in this study is directly aligned with the primary objective of the research. As the study aims to identify and understand the difficulties encountered by Ukrainian students learning Turkish as a foreign language and to uncover their lived experiences, a phenomenological approach provides the most appropriate framework to capture the essence and meaning of these experiences from the participants' own perspectives. This design enables the researcher to deeply explore how students perceive, interpret, and make sense of the challenges they face during the language learning process. Similarly, the phenomenological approach is also suitable for examining the experiences of Turkish language instructors who teach Turkish to these students. By conducting in-depth interviews, the study can systematically reveal the instructors' insights, observations, and reflections regarding the teaching process. Thus, phenomenology allows for a comprehensive and nuanced understanding of both learners' and teachers' perspectives, which is essential for developing an in-depth picture of the teaching and learning of Turkish as a foreign language in this specific context. In this way, the chosen research method and the objectives of the study are closely interconnected, as the phenomenological design makes it possible to access rich, detailed, and subjective data that directly correspond to the core purpose of the research.

Participant

In a phenomenological design, the participants should be selected from individuals who have experienced the same phenomenon or experience that is the focus of the research as the experiences of the participants are vital. The participants should represent relevant information and rich experiences to answer the research question for a deep understanding (Yıldırım & Şimşek, 2013). Adopting this criterion for selection of the participation, a location was chosen where there is a high concentration of Ukrainian refugees in Türkiye. Within this location, specifically TÖMER students and the instructors teaching them Turkish at this institution were chosen. Accordingly, the participants included eight Ukrainian students with at least a B1 level of Turkish who came to Turkey due to the war and five instructors teaching these students Turkish. Since the interviews were managed in Turkish, it was ensured that the students had a certain level of proficiency in Turkish, and the researchers tried their best to reveal their experiences. In a nutshell, the criterion sampling method was utilized in the participant selection by applying the predetermined criteria. Table 1 presents the profile of the students, and Table 2 displays the profile of the instructors:

Table 1. The profile of the students

Students	Gender	Age	Language Level
S1	Female	20	C1
S2	Female	26	B2
S3	Female	19	C1
S4	Female	18	B1

S5	Female	18	B1
S6	Female	39	B1
S7	Female	20	B1
S8	Female	21	B1

Table 2. The profile of the instructors

Instructors	Gender	Status	Language Level They Offer
I1	Male	P.H.D Instructor	A1, B1
I2	Male	Instructor	A1-C1
I3	Female	Instructor	B2
I4	Male	Instructor	A1-C1
I5	Male	Instructor	A1-C1- Turkish For Academic Purpose

Moreover, the instructors participating in the study had experience delivering different levels of language, which was purposefully adopted to examine their experiences deeply.

Data Collection

The necessary ethical approval to conduct interviews with Ukrainian students and Turkish instructors for data collection was obtained from the Scientific Research and Publication Ethics Committee of Firat University Rectorate (dated 10.01.2023 / document number 13626 / 28). The semi-structured interview protocol used in the study was prepared by the researchers, considering the studies in the knowledge base, and expert opinions were obtained (n=3). ²Based on the expert opinions making necessary modifications, the final version of the protocol was created. Accordingly, the protocol consisting of three parts was applied to both students and instructors. The first part included questions to determine the participants' background information and their purposes for learning Turkish. The second part contained questions identifying the problems experienced by the students and instructors during the Turkish learning/teaching process. The last part included questions to reveal suggestions for the Turkish learning/teaching process. After obtaining the participants' consent through the consent form, focus group interviews were conducted.

Focus group interviews facilitate richer and more diverse data collection through participant interactions and discussions, allowing individuals to build upon each other's ideas. This method is ideal for exploring shared experiences and uncovering new perspectives, especially when aiming to deeply understand the social and cultural perceptions of groups such as migrants and refugees. Focus groups provide a broader perspective compared to individual interviews by capturing collective meanings and social dynamics. Therefore, focus group interviews were chosen in this study as they allow for the collection of rich data combining both individual experiences and group dynamics, contributing to a more comprehensive and in-depth understanding of the process of learning and teaching Turkish as a foreign language.

Ethical Approval

All data collection and storage procedures were approved by the Board of Firat University Social and Human Sciences Research Ethics Committee (decision numbered 2023-1, date 05.01.2023)

Data Analysis

In a phenomenological study, data analysis involves an in-depth examination and interpretation of participants' statements, so researchers continuously analyze the data set to identify common themes, structures, and meanings (Yıldırım & Şimşek, 2013). The data obtained from the study were analyzed using content analysis, which includes four steps: coding the data, identifying codes, categories, and themes, organizing codes, categories, and themes, and describing and interpreting the findings (Eysenbach & Köhler, 2002; Miles & Huberman, 1994). In the study, codes were supported with direct quotations and assigning codes for students (S1, S2, ...) and instructors (I1, I2, I3...). Additionally, the frequency of the identified sub-themes was calculated to provide a quantitative dimension to the analysis, allowing for a clearer understanding of the prevalence and significance of each theme.

Findings

The data mainly indicated the purpose of learning Turkish, challenges in learning and teaching Turkish as a foreign language, the suggestions, and solutions offered by the participants.

² This indicates that opinions were obtained from three experts.

1. Purposes of Ukrainian Students for Learning Turkish as a Foreign Language

Since the participant students' purposes in learning Turkish vary, different frequency distributions of sub-themes were obtained (Table 3).

Tablo 3 The purposes of Ukrainian students for learning Turkish as a foreign language

Theme	Sub-theme	f
The Purpose of Learning Turkish	To settle in Türkiye (temporarily)	6
	For education in Türkiye	3
	To work in Türkiye	5
	To get a job	2
	To learn Turkish culture	3
	To make friends and to communicate with Turkish people/communication	4

Since Ukrainian students sought refuge in Türkiye following the onset of the Russia-Ukraine War, their primary purpose for learning Turkish as a foreign language is to settle in Türkiye temporarily. They aim to find jobs and work in Türkiye, continue their education interrupted by the war, adapt to the places they have settled in, understand Turkish culture, and live harmoniously by communicating with them. Some quotes display these themes: "I think I will settle in Türkiye and get a job. (S1). I am planning to get a job in Türkiye, so I need to learn the Turkish language. (S2)."

Why do I learn Turkish? First of all, I need to complete my education. Another reason is that it will be beneficial since I study International Relations at university, I think. I have decided to learn Turkish as I am curious about Turkish culture and want to understand it better. Consequently, speaking a foreign language is beneficial in many ways. For example, it gives you a broader perspective on life, helps you make friends from different countries, and adds an edge to your professional life. After completing my education in Türkiye, I want to pursue my career in my field. In my major, speaking different languages is very helpful. For example, it makes it easier to read academic articles and research in that language. We will be able to understand the country's history better, and I believe I can contribute to the relationship between my country and Türkiye. (S3).

"Since the beginning of the war, we have temporarily moved here. Speaking another foreign language will not hurt. Alternatively, I want to become a translator during Ukraine's post-war reconstruction, or after finishing my undergraduate studies in Ukraine, I would like to do a master's at a university in Türkiye or join an exchange program. (S4). I am learning Turkish because I started to live here after the war. I hope I can live in Türkiye until the war ends. I want to speak Turkish and understand Turkish. (S7)."

2. The Challenges in Learning Language Skills Ukrainian Students Encounter When Learning Turkish as a Foreign Language in Türkiye

The challenges Ukrainian students have mentioned were categorized as the challenges related to language skills and other challenges. Accordingly, Table 4 displays the challenges that the students have experienced when learning language skills. While some students have difficulty in all four language skills (listening, speaking, reading, and writing), some have one or few skill problems.

Table 4 The Challenges in Learning Language Skills That Ukrainian Students Encounter

Theme	Sub-theme	Code	f
Language Skills	Listening	Difficulty in comprehension because of fast speech	5
		Comprehension problems due to dialect usage	1
	Speaking	Lack of practice	8
		Pronunciation mistakes	3
	Reading	Less reading practice	1
		Comprehension problems in reading academic texts	3
		No comprehension at first glance	3
		Complex terms	2
		Lack of vocabulary knowledge	3
		Polysemy	2
	Writing	Mistakes due to differences in language structures and grammar	1
		Syntactic differences between languages	1
		Use of a different alphabet	4

According to Table 4, Ukrainian students face comprehension difficulties while listening due to fast speech and the use of dialects by the speakers. Regarding speaking skills, they mentioned that they cannot practice and have difficulties, particularly, pronouncing certain sounds and words. Reading is the skill where they suffer various difficulties among the basic language skills. The codes reveal that they struggle with reading and understanding academic texts, text is not comprehensible at first glance, they have insufficient vocabulary, and they confuse terms and polysemous words. Some views related to this theme: “I make some mistakes while speaking. I think I need to read and speak more to improve my Turkish language skills (S1). Reading might be challenging sometime, but I manage to do it. Sometimes I have difficulty in writing because the language, sounds, and sentence structures are totally different (S2). Generally, I do not have difficulty, but because of some people’s fast speech and use of dialect, I sometimes struggle in understanding. I do not usually have difficulty in speaking. However, some terms might be problematic to understand when speaking in an academic context. I do not also have trouble in reading, but I may not know the meanings of some words while reading academic texts, so, I can need to apply a dictionary (S3). When hearing a familiar word, I can remember its meaning, but as I struggle to remember the meaning of the word, the text I am listening to keeps playing. At last, I can understand the main idea of the conversation (S4). Yes, speaking is hard for me. I do not have many Turkish friends; I can only practice the language at class (S7). On the other hand, the other challenges apart from language skills revealed sub-themes on individual, economy, social and cultural life, and educational sources, which is presented in Table 5.

Table 5 Other Challenges Ukrainian Students Encounter

Theme	Sub-theme	Code	f
Other Challenges	Individual	Difficulty due to multilingualism Slow comprehension	1
	Economic	X	1
	Social/Cultural	Lack of friends speaking Turkish	4
	Education (institutions, materials, instructor, etc.)	Instructors who do not speak English and Russian Inadequacy of educational materials	3 3

Ukrainian students learning Turkish do not face economic problems, and their standard of living is relatively high despite coming from a war-torn country, which is considerable. On an individual level, they experience challenges due to their knowledge of multiple languages, which leads them to mix up language features. In a new place with a lack of friends who speak Turkish to practice, they experience some challenges. Generally, they are satisfied with the Turkish and Foreign Languages Research and Application Center (TÖMER) and their Turkish instructors. However, the instructors' lack of knowledge in other languages (Russian and English) sometimes hinders communication. Some students have mentioned that some reading materials are not appropriate for their language level, which affects their motivation negatively. The following quotes illustrate these findings: “As I can speak more than two languages, I compare their structures, and it leads to some confusion for me. (S2). I understand some topics slowly, and there are many differences between the language I am trying to learn and the one I can speak. The instructors try to teach us and explain everything clearly. However, since they cannot speak English, I have difficulty in communicating with them. (S4). I can only practice my speaking skills in class. (S5). I have few friends who can speak Turkish, so I do not have the opportunity to practice. I really love TÖMER and enjoy the books, but I would not say I like some materials offering activities with many synonyms. It is hard for a beginner to recall all these vocabularies. For instance, journey, travel, trip (A1). I am also satisfied with the instructors. (S7). Some texts in the coursebooks are tough and do not motivate us to learn the language. On the contrary, we lose our passion and motivation to learn Turkish when admitting its difficulty... (S4). The instructors really did their best to teach Turkish and they are helpful. Some even treated us not as students but as their friends and contributed to our language development. (S1).

3. The Suggestion Ukrainian Students Offer to Learn Turkish as a Foreign Language in Türkiye

Table 6 The Suggestions for Learning Turkish

Theme	Sub-theme	code	f
Suggestions	activity	Extensive reading	5
		Speaking practice	8
		Watching series, animation/ TV programs in Turkish	7
		Listening to Turkish songs	2
	Material	TV / Turkish series	7
		cartoons	5
		children books	3

		vocabulary notebook	2
	application	Social media platforms	4
		Translation websites	3
		Duolingo	2

Ukrainian students have offered suggestions on how to learn and improve Turkish. They have emphasized the importance of practicing speaking as much as possible and improving their comprehension through extensive reading. They have also mentioned that they can improve the newly learned vocabulary by watching Turkish TV series, programs, and cartoons and listening to Turkish music. Additionally, they have suggested using social media platforms, translation websites, and the Duolingo application for learning and improving their Turkish language skills.

4. The Challenges Encountered by Instructors Teaching Turkish as a Foreign Language to Ukrainian Students in Türkiye

The challenges related to language skills encountered by the instructors are presented in Table 7.

Table 7 Challenges Encountered by Instructors Teaching Turkish as a Foreign Language

Theme	Alt Tema	Kod	f
Challenges Related to Four Skills	Listening	Comprehension problems due to fast speech	2
	Speaking	Slow improvement	4
		Lack of practice	4
		Use of mother tongue	3
	Reading	Lack of vocabulary knowledge	2
	Writing	Slow improvement	5
		Syntactic differences between languages	3
		Grammatical Differences	2
		Alphabet	2

Table 7 shows that the problems that the students face most are related to receptive skills (listening and reading) according to the instructors. The students tend to use their mother tongue in daily life instead of the target language, which leads to slow progress in speaking Turkish due to a lack of practice. Additionally, differences in structure and syntax between their mother tongue and Turkish, as well as differences in the alphabet, cause slow progress in writing skills. Other problems that the instructors witness include the students' difficulty in understanding fast speech and their lack of vocabulary, which are also linked to a lack of practice. The quotes below illustrate these findings:

Sometimes I encounter difficulties in teaching speaking and writing skills depending on the readiness of the class. The development of speaking and writing skills can be slow due to various linguistic, cultural, and other challenges that students face in language learning. So, we can experience various problems in teaching. I believe that expanding orientation activities for students and creating classes tailored to their levels will reduce these problems. Due to Ukrainian belonging to the Slavic language family, I think students struggle with sentence structure while learning Turkish. Additionally, I guess their speaking skills develop slower because of a lack of practice. Apart from these, the challenges they face can be considered general language learning problems. (I1).

“Generally, students criticize Turkish grammar's agglutinative structure and alphabet (I2). I see that Ukrainian students have difficulty in writing and speaking most compared to other skills. Speaking and writing skills complement each other, and because they experience general knowledge about B2 level topics in their mother tongue, they may find it a bit more difficult to speak and write about things that they do not have any idea. Another major problem could be the alphabet. (I3). In general, I see some problems with listening skills and, consequently, in speaking. I think the reason behind these problems is their use of mother tongue rather than the target language in their social life. They have limited opportunities to practice. Although they are encouraged to speak the target language outside of the class, it is not possible to monitor it. Therefore, students' speaking skills progression is slower compared to other skills. (I4). Their problems might be considered the common problems in language learning (I5).

The data also uncovered that the instructors have observed some other challenges that the students experience when learning Turkish. These challenges are displayed in Table 8.

Table 8 Other Challenges That Ukrainian Students Encounter

Theme	Sub-Theme	Code	f
Other Challenges	Individual	Marriage and cultural adjustment problems	1
	Economic	X	0
	Social/ Cultural	Lack of Turkish Friends	4
		Negative Attitude Towards Russian Friends	3
		A New Culture	2
		Language Learning Anxiety	5
	Education (institution, materials, instructor, etc.)	X	0

Table 8 shows that Ukrainian students have difficulty because of language learning anxiety, lack of Turkish friends, new cultural adjustment problems, negative attitude towards Russian people, marriage, and cultural adjustment problems of the ones married to Turkish people. It is considerable that Ukrainian students do not suffer economic and educational problems. "I see they do not have problems in general. However, some students demand to be in a different class when they share the class with students who are Russian citizens. This might be a consequence of the war as there was no such demand before. Also, I do not see any social and economic problems. (I1). They (Ukrainian students) sometimes can have trouble with Russian students. We try to deal with this situation by providing different example sentences. They do not have any trouble with us as instructors. They are disciplined and easy-going people in general (I2). My students are married to Turkish people here. They mention their difficulty in social adjustment to Turkish culture. They say they are not used to having many guests coming and going, so they find it hard to adapt to it. However, they find it normal. (I3). The students have, of course, social troubles as they have come here due to war. I observe problems such as trying to adapt to a new culture and learning a new language. (I4).

5. The Solutions Instructors Develop to Teach Turkish as a Foreign Language

Turkish instructors' solutions, which they have developed when observing students' difficulties, are presented in Table 9. The Suggestions to Teach Turkish

Theme	Sub-theme	Code	f
suggestions	Activity	Speaking practice	5
		Using movies/series/animation/ TV programs in Turkish	3
		Using Turkish songs	2
		Organizing social events	4
		Teaching vocabulary	2
	Material	Turkish Teaching Sets	5
		TV / Turkish series	3
		cartoons	3
	Application	Social media platforms	4
		Duolingo	2
		Netflix	3

According to Table 9, the instructors have explained that they have implemented the same methods (using Turkish Teaching Sets) they apply to other students from other countries. The major problem they see is the lack of speaking practice. They have mentioned that they organize social activities both inside and outside the classroom to encourage students to practice. They also explained that they use Turkish movies/series/animations/programs where the language is used. They have noted that students prefer these activities most and provide positive feedback.

I plan to increase peer interaction by organizing social activities inside and outside the classroom. I encourage less active students to engage in classroom activities during these events. I believe that these activities help them to develop their communication with peers. Also, I think these activities will be beneficial for learning Turkish. Generally, I can say that they prefer Turkish TV series because it is an effective way to spend social time and find series helpful for learning Turkish. I also think they prefer listening to Turkish songs, so I recommend those as well. (I1).

We use all kinds of materials, methods, and applications. We follow any updates about them. My students also mention that they prefer the Turkish series for practice. I, of course, help them in their social relationships. I believe that developing a dialogue is one of the most important aspects of being a teacher. When this is achieved, the pace

of learning and teaching the language increases both inside and outside the classroom, and class activities and extracurricular events are the most effective ways to achieve it. (I2).

I suggest that students' readiness should be increased through preliminary preparation and vocabulary activities. My students mention that they practice by watching TV shows and series on Netflix and listening to songs by popular artists, and I also offer them such things. (I3).

There is no different implementation in teaching the language compared to the methods and techniques applied to other students. However, since some of the students come from a war zone, we avoid mentioning topics about war both in and out of class. Especially during breaks and after-class times, I try to talk to the students in Turkish about current topics to increase their readiness for social life. Students generally prefer the course materials. I think they need these materials, especially when reviewing what they have learned in class, particularly in the grammar sections. Additionally, audiovisual materials capture the students' attention more. (I4).

Conclusion, Discussion, and Implications

This study revealed the challenges of Ukrainian students, who came to Turkey due to the war, and the instructors who teach them Turkish through their perspectives and views. The problems other than language skills encountered by Ukrainian students were also identified. Uncovering the solutions and suggestions that both students and instructors have developed to overcome the problems in learning and teaching Turkish, this study is considered to contribute to the development and design of teaching Turkish as a foreign language program. The conclusions drawn from the findings are as follows:

The primary reasons Ukrainian individuals who came to Türkiye due to the war want to learn Turkish are to (temporarily) settle and to communicate with the people in Türkiye. They also aim to learn Turkish to understand Turkish culture, continue their education, pursue academic careers in Turkish universities, find jobs, and work in Türkiye. Learning the target language for communication and adaptation is necessary for individuals coming to a new country and culture. Additionally, learning the language is essential to meet their basic needs and maintain their social and cultural lives in the host country. Studies in the knowledge base also underline that learning the language of the new country is a necessity, especially for the ones who have been displaced due to war (Morali, 2018; Nurlu & Kutlu, 2015; Roucek, 1961; Bravo-Moreno, 2009). Also, some studies show similar findings with this study, such as Ukrainians learning Turkish for academic careers in Turkish universities or to find jobs and work in Türkiye (Sofienko, 2019). Within this context, the popularity of Turkish TV series, political policies, and the rights given to immigrants and refugees in Türkiye have made Turkish an enticing language, which contributes to its recent rise as a language in demand across the globe.

The study reported that Ukrainian students suffer from similar challenges faced in teaching Turkish to foreigners. Both students and instructors have also noted the difficulties, particularly in the productive skills during language learning/teaching. Problems in speaking skills include pronunciation issues, lack of speaking practice, a preference for using the mother tongue instead of the target language, speaking anxiety, low motivation, and differences in syntax and sounds between the mother tongue and the target language. Additionally, the study displayed Ukrainian students' slow progression and their limited practice in improving speaking skills. Similarly, Göçer (2015) reveals such difficulties and the solutions to overcome them in his study. When considered particularly for the Ukraine context, these findings can be explained by the structural differences between the Slavic language family, to which the Ukrainian language belongs, and the Ural-Altaic language family, to which Turkish belongs, as well as differences in syntax features and certain sounds. Çarkıt and Korkutan (2023) also draw similar conclusions based on the views of both students and teachers in their study on students learning Turkish in Ukraine. Demirci (2015, p. 339) mentions that practicing the language can affect the ability to communicate effectively in daily life. On the other hand, students learning Turkish face the most difficulties in productive skills (Açık & Takıl, 2019; Biçer, Çoban, & Bakır, 2013; Kanat, 2022). Based on the recommendations by both students and instructors regarding all these difficulties, this study proposed such solutions: conducting practical activities inside and outside the classroom to increase motivation for speaking and writing, organizing social events to practice speaking, encouraging student participation in these activities, helping students make Turkish friends, recommending Turkish songs, films, and programs as exposure to the use of Turkish, and improving writing skills by gradually progressing from forming simple sentences to creating texts.

One of the challenges Ukrainian students encounter in learning Turkish is the difference in the alphabet. Ukrainian students familiar with the Cyrillic alphabet encounter difficulties, particularly in writing skills and other language skills, when they come across the Latin alphabet with different sounds and language features, which was also reported by other studies (Çarkıt & Korkutan, 2023; Karadavut, 2020; Khomeniuk, 2020; Sofienko, 2019). This

problem can be resolved by thoroughly teaching the Latin alphabet and practically pronouncing the sounds. Introducing the Latin alphabet at the A1 level can address this problem before it affects higher levels.

Besides, the study revealed that Ukrainian students have difficulty in comprehension, indicating challenges in receptive skills because students note that they do not understand what they hear, especially due to the fast pace of speech. Additionally, the use of dialects causes comprehension problems as students cannot understand what the speaker (sender) is saying. In reading skills, students struggle to understand because of limited vocabulary, inability to comprehend the text at first glance, difficulty understanding complex texts, confusion with terms in academic readings, and slow reading. Çarkıt and Korkutan (2023) also report similar findings in their studies. A limited vocabulary inevitably causes difficulties for students in both listening and reading. Also, lack of vocabulary awareness and insufficient vocabulary are the main factors in the inability to comprehend texts and slow reading, which Derman (2010) and Kaya (2018) address in their studies. Similarly, Savaş (2015) notes the challenges foreigners face in reading and pronunciation, highlighting such difficulties. To improve listening and reading skills, appropriate listening materials and reading texts should be prepared according to the students' levels. Students can be encouraged to use dictionaries, and vocabulary exercises can be conducted. Teaching vocabulary through games, drama, digital platforms, etc., can also be beneficial. Applications and platforms like Duolingo and Netflix can be utilized. Since receptive and production skills are complementary language skills, the development of one skill will affect the other.

In addition to the challenges related to the four language skills Ukrainian students face, this study has also aimed to identify whether they encounter individual, sociocultural, economic, or educational challenges (institutions, materials used, instructors, etc.). It is considerable that Ukrainian students learning Turkish do not face economic problems, and their standard of living is relatively high despite coming from a war-torn country. At the student level, they face challenges due to mixing the characteristics of the different languages they speak. The lack of friends who speak Turkish in their new home, which they need for practicing the new language, has made things difficult for them. Generally, they are satisfied with the Turkish and Foreign Languages Research and Application Center (TÖMER), where they learn Turkish, and with the instructors. However, the fact that instructors do not speak different languages sometimes leads to communication problems with students. Additionally, some students point out that some reading materials are not appropriate for their level, which causes them to lose motivation.

On the other hand, instructors note that Ukrainian students who have come to a different country due to the war experience anxiety about learning a new language, have few Turkish friends, and face difficulties in adapting to a new culture. They also tend to develop negative attitudes towards their Russian classmates and encounter cultural challenges, particularly among those who are married to Turkish people. It is also surprising that Ukrainian students do not face any economic and educational problems. From the perspectives of both students and instructors, it is concluded that students have difficulty because of lack of practice due to not having enough Turkish friends, do not face economic problems, and, although they occasionally experience cultural adaptation problems, these challenges are individual cases.

The study also proposes solutions suggested by both Ukrainian students and their Turkish language instructors to address the challenges they face, which includes organizing in class and extracurricular activities, arranging social events for speaking practice, encouraging students to participate in these events, helping them make Turkish friends, using Turkish songs, films, and programs for language exposure, and improving writing skills.

This study reports the challenges encountered in the process of learning Turkish as a foreign language in Türkiye, based on the perspectives of Ukrainian students who came to Turkey due to the war. Additionally, the views of the instructors teaching Turkish to these students were also utilized as a source for the study. This study contributes to not only teaching Turkish as a foreign language but also the barriers for people who are displaced from their homes due to war as it reports data from both learners and instructors, fills the literature gap addressing Ukrainian students learning Turkish in Türkiye, identifies the problems faced in the Turkish learning/teaching process, and proposes solutions to overcome such challenges.

This study has several limitations. Firstly, the limited number of participants and the focus on a specific geographical area, particularly within a single institution such as TÖMER, restrict the generalizability of the findings. Additionally, variations in the participants' Turkish language proficiency may have hindered the clear and complete expression of their views. The study relies solely on qualitative data collection methods and lacks quantitative support, which limits the objective measurement of the findings. Given that language learning is a long-term process, the experiences captured within a specific time frame may change over time. Furthermore, the limited consideration of cultural and psychosocial factors, the insufficient examination of instructors' varying

language proficiency levels, and the exclusive focus on Ukrainian refugee students constitute other limitations of the study. These constraints should be taken into account when interpreting the results.

Disclosure Statement

No potential conflict of interest was reported by the authors.

Author (s) Contribution Rate

The authors contributed equally.

Ethical Approval

All data collection and storage procedures were approved by the Board of Fırat University Social and Human Sciences Research Ethics Committee (decision numbered 2023-1, date 05.01.2023)

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Response to Intervention: A Bibliometric Mapping

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Abstract

This study aims to present a bibliometric analysis of international research on the response to intervention (RTI) approach. An analysis was conducted using the Web of Science database focusing on the period between 1997 and 2023. At the end of this analysis, 477 records that met the search criteria were identified.

Initially, a performance analysis was carried out to assess the publication output of authors, institutions, countries, and other contributors. Subsequently, a science mapping analysis was conducted to uncover the structure and dynamics of research related to the RTI approach. The main findings of the research are as follows: (1) Research on RTI has been an emerging field that has grown exponentially since the 2000s, but there has been a decline in the number of studies in recent years; (2) Research in this area is predominantly produced by a few institutions and a cadre of scholars in the United States; (3) There is evidence of research collaboration among scholars in this area, but collaborative networks are mostly established within the US or among scientists in a few countries; (4) The trends in the RTI literature have changed over the past 27 years. This study provides beneficial information on the current state of RTI research, helping to recognize this research's strengths and gaps in growth, development, themes, impact, and scope.

Keywords: Response to Intervention, Learning Disabilities, Bibliometric Study, Special Education

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Introduction

Researching effective strategies to address students' diverse learning needs is a fundamental issue in education. Education systems worldwide aim to provide every student with the necessary support to unlock their full academic potential. One innovative and widely adopted approach to achieve this goal is Response to Intervention (RTI), a multi-tiered system of support that focuses on early identification and intervention for students struggling academically or behaviorally (Abbott & Wills, 2012; Fletcher & Vaughn, 2009; Hughes & Dexter, 2011).

RTI emerged due to the search for improved methods of identifying and supporting students with learning disabilities. The acronym RTI has been used for more than twenty-five years to represent a variety of terms, including “responsiveness to intervention,” “response to intervention,” and “response to instruction” (Allsopp et al., 2010; Fuchs et al., 2003; Speece & Case, 2001; Vaughn et al., 2003). The term RTI originally referred to a diagnostic method for addressing reading difficulties, which includes concise, intensive instruction and evaluating the student's progress in response to that instruction (e.g., Fuchs & Fuchs, 1998; Torgesen et al., 1999). Previously, the “wait-to-fail” approach was the widely accepted model for identifying students with learning disabilities. In this model, special education services or interventions are generally not initiated until students demonstrate significant academic failure or a significant gap between their intellectual abilities and academic achievement (Fuchs & Fuchs, 2006). The existence of a significant difference between intellectual ability and academic achievement is considered an indicator of a learning disability. The “expect to fail” approach has been subject to severe criticism, including (a) delay in intervention (Fletcher et al., 2007), (b) ignoring the difficulties of students from different backgrounds and students with mild learning disabilities until they become severe (Reynolds & Shaywitz, 2009), and (c) although early intervention and preventive measures are effective in preventing learning difficulties and reducing their effects, the model contradicts this finding (Fuchs & Fuchs, 2006). As educational practices have evolved, the importance of proactively addressing learning disabilities and providing timely support to ensure all students succeed academically has been recognized, resulting in a shift towards early intervention models such as RTI. The logic behind RTI centers on providing timely and effective support to struggling students using a systematic, data-driven approach. By identifying issues early, implementing gradual interventions, making decisions based on data, fostering collaboration, and maintaining flexibility, RTI aims to ensure that all students have the opportunity to succeed academically. In RTI, only students who fail to show expected academic progress or do not make any progress despite being provided with appropriate teaching opportunities are referred for diagnosis (Fuchs & Fuchs, 2006; Gresham, 2002; Vaughn & Fuchs, 2003). In this context, RTI is a preventive approach that aims to take measures to prevent failure (Lonigan & Phillips, 2016).

RTI is currently defined as a multi-layered approach to early identification and support of students with learning and behavioral needs (<http://www.rtinetwork.org>). The fundamental feature of the RTI approach is to provide high-quality instruction and evidence-based interventions while monitoring and maintaining data on each student's progress (Grether & Sickman, 2008). Its framework covers several key components, each essential to its effectiveness. The first of these is *universal screening*. The RTI process begins with universal screening of all students in the general education classroom to identify students at risk for learning disabilities (Batsche et al., 2005). Universal screening involves regularly assessing all students to identify those at risk and to monitor their academic progress over time. All students are regularly assessed to ensure that they are making adequate progress in the general education curriculum. Based on the data obtained, valid and reliable decisions can be made regarding students' intervention needs and the intensity of support to be provided (Shinn, 2008). The second component, *gradual interventions*, determines the type and intensity of support per student's needs as an essential feature of a multi-tiered support system (Pretti-Frontczak et al., 2014). RTI uses a tiered approach to support students identified at risk of learning disabilities, with interventions provided at increasing intensity levels to promote their learning rate. This layered structure confirms that students receive interventions appropriate to their needs (Vaughn & Fletcher, 2012). Educational decisions about the intensity and duration of interventions at each level are based on the student's response to instruction. RTI has a widely accepted three-tier structure (Berkeley et al., 2009; Björn et al., 2018; Wanzek & Vaughn, 2011). Tier 1 involves general instruction for all students and is intended to ensure access to the universal curriculum. Instructional strategies at Tier 1 are intended to determine school or classroom performance and to monitor it to identify students who fall below the universal curriculum performance, that is, students in the risk group who need additional support. At this stage, the student's response to in-class interventions is monitored for three time points. At the end of the evaluations, students who cannot demonstrate sufficient development in the expected knowledge and skills compared to their peers are directed to Tier 2, which includes individualized interventions and more comprehensive evaluations with the universal curriculum. Tier 2 interventions are performed either in small groups or through peer teaching, and their duration varies depending

on the planned intervention (Compton et al., 2006; Fuchs & Fuchs, 2006). Again, the duration of the intervention is planned against the data collected. When the student reaches class performance with the support received at Tier 2, they continue to be monitored in the classroom, and support is continued if necessary. Students who do not adequately respond to the intervention at this stage are transferred to Tier 3, and more intensive and individualized interventions are provided. At this stage, students who do not respond effectively to target-oriented interventions are directed to receive diagnostic and special education services (Fuchs & Fuchs, 2006). Moreover, RTI keeps monitoring student progress; regular data collection allows educators to monitor the impact of interventions and make informed instructional decisions (Deno, 2003). The final component of RTI is *data-based decision-making*. Educators use collected data to tailor student interventions and instructional strategies (Stecker et al., 2005).

When the national and political popularity of RTI in the United States is considered, an increasing trend that can be attributed to several factors is observed. The historical context of inclusion of disabilities in schools, along with the evolution of RTI as a model designed to enhance academic performance among all students, have played a significant role in its growing prominence (Leung, 2021). One key factor is the recognition that appropriate instruction can significantly influence the learning trajectory of individual students (Scanlon et al., 2008). Research has shown that many students who are currently identified as having learning disabilities could have avoided such classification if they had received more targeted and responsive interventions (Scanlon et al., 2008). Additionally, studies have demonstrated a decline in special education classification rates after the implementation of a tiered approach to interventions, a common RTI model (Scanlon et al., 2008).

The potential of RTI to serve as a prevention framework, encompassing universal screening, tiered instruction, and a teach-test-reteach approach, has also contributed to its increasing popularity (Ehren & Nelson, 2005). Furthermore, the utility of RTI in addressing not only learning disabilities but also language impairments has expanded the scope of its application and appeal (Ehren & Nelson, 2005).

The recognition of the need to consider intersectionality and equity when examining learning disabilities in schools has also played a role in the growing popularity of RTI (Leung, 2021). The disproportionate representation of culturally and linguistically diverse students in special education suggests the importance of addressing social factors that may contribute to this disparity (Leung, 2021).

To date, various meta-analyses (e.g., Burns et al., 2005; Marston, 2005; Swanson et al., 2017; Tran et al., 2011) and literature reviews (e.g., Alahmari, 2019; Gischlar et al., 2019) have been conducted to understand the nature of RTI and its application effects. These studies have examined the themes, methodologies, theoretical foundations, and applications of RTI research, providing essential insights. However, no research has mapped the evolution of RTI research, identified the key researchers, established collaborations, co-authorships, or institutional affiliations based on publication data.

The purpose of this study is to provide researchers with a quantitative analysis that maps the scientific output related to RTI, enabling them to understand, assess, and direct the research dynamics in this field. For this reason, the annual publication data, key journals and publications, leading authors, institutions, countries, and their collaborative networks, as well as trends in common words, are analyzed. It considers author, publication, keyword, journal, country, university, and citation variables. The objective is to provide a comprehensive overview of the current state and development of RTI research from 1997 to 2023.

Method

This study overviews and examines "response to intervention" research using bibliometric methods. Bibliometric methods employ a quantitative approach for the description, evaluation, and monitoring of published research (Zupic & Čater, 2015). The purpose of bibliometrics is basically to investigate scientific literature in a particular field. It has broad applicability to all fields of science; Pritchard coined the term bibliometrics in 1969 (Andrés, 2009). Bibliometric analysis is divided into 4 sub-analyses: descriptive, conceptual structure, intellectual structure, and social structure (Prieto-Jiménez, 2021). The descriptive analysis focused on identifying the most productive authors, institutions, countries, influential documents, frequently cited references and common keywords. The conceptual structure was examined using co-word analysis. In contrast, the intellectual structure was explored through co-citation analysis and historiographic mapping, highlighting the highest response rates, significant research topics, and historical developments. The social structure analysis mapped the collaboration networks among countries. These four types of analysis were employed to assess the contributions of RTI over the past 27 years. As a result of the scans, the year 1997 was chosen as the starting point because it marks the period when the term RTI and related concepts began to be used more frequently and consistently in academic literature. This period corresponds to the time when foundational studies on the RTI framework were first conducted and when

the concept gained theoretical significance in educational research. Additionally, the late 1990s were characterized by intensified legal regulations and policy discussions in the United States regarding early intervention and special education, which laid the groundwork for the widespread adoption of RTI. Following these developments, amendments to the Individuals with Disabilities Education Act (IDEA) in 2004 emphasized early intervention approaches, further promoting RTI's development and research interest. Considering the results of the analysis, conclusions and recommendations could be made based on the articles published in RTI during this period.

Data Creation Process

This study used Clarivate's Web of Science (WoS) index as the primary data source. Using WoS data, the research literature on RTI was mapped using a bibliometric approach. Mongeon and Paul-Hus (2016) state that WoS and Elsevier's Scopus indexes are frequently used in bibliometric studies. The primary reason for choosing WoS is that it includes only the highest standard journals (Merigó & Yang, 2017), ensuring it effectively identifies the most relevant sources. Additionally, it offers comprehensive coverage of social sciences literature (Norris & Oppenheim, 2007). While obtaining research literature data on RTI from WoS, the steps in Figure 1 were followed. First, relevant keywords given at the first step were used to search the Web of Science (WoS) database. The reason for choosing as broad a set of keywords as possible is to prevent studies on RTI in the literature from being accidentally omitted or not included in this bibliometric study. Then, four related indexes, namely Social Science Citation Index (SSCI), Science Citation Index (SCI), Science Citation Index-Expanded (SSCI-E), and Art & Humanities Citation Index (A&HCI), were selected to refine the search area. The last criteria were selecting only articles and early access articles in English. The first and second researchers read and evaluated all filtered publications, and irrelevant publications were removed. In addition to the two researchers, a panel of experts in the special education field reviewed the publications' abstracts and provided their opinions on their relevance.

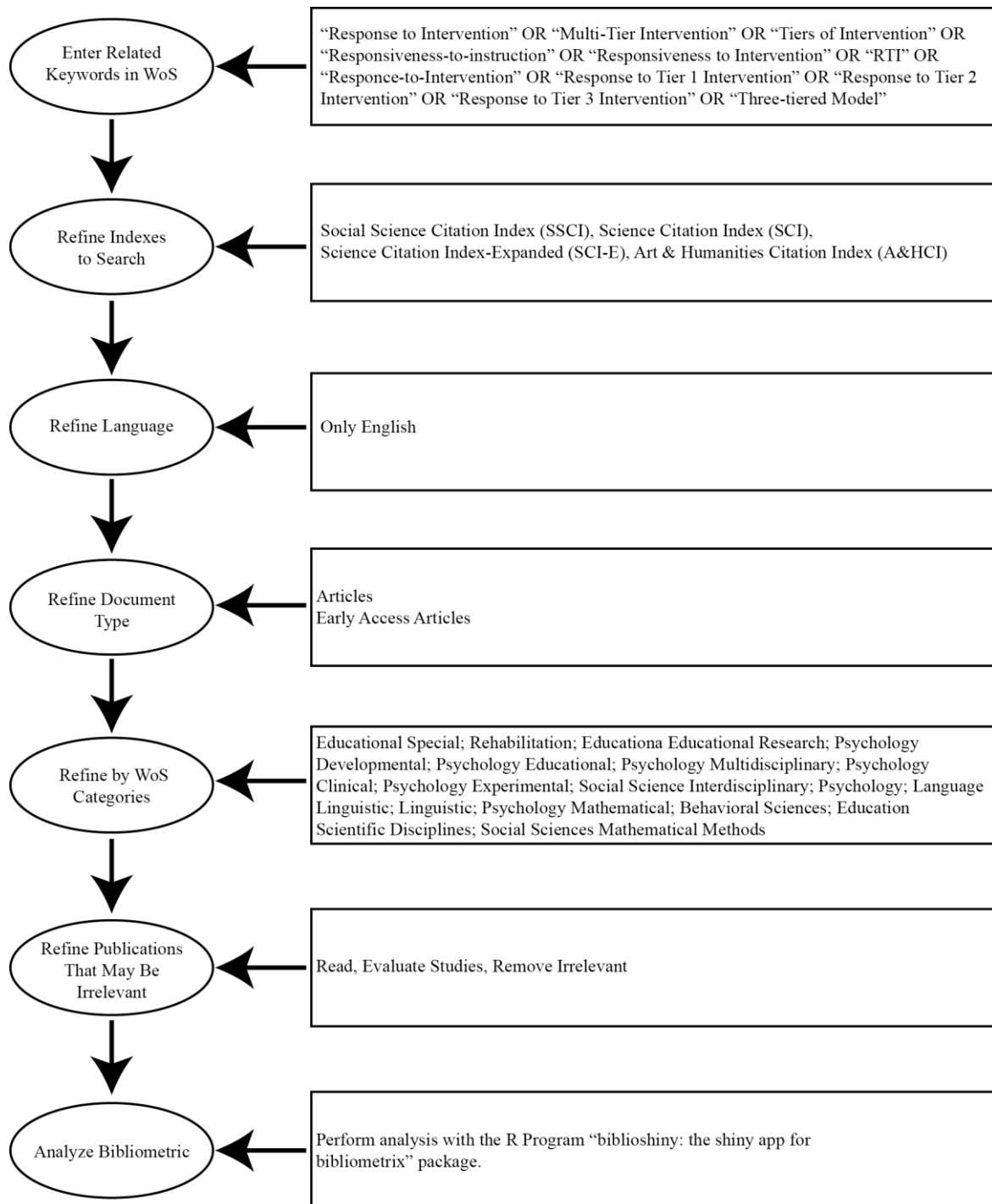


Figure 1. Data Creation Process

The data file created by following the stages in Figure 1 included 477 studies on RTI. The refined data file includes metadata about the author, journal, institution/organization, cited sources, the number of citations, country, publication year, and title, abstract, and keywords of the documents.

Data Analysis

In this study, data analysis was carried out using the free software R program. The "biblioshiny: the shiny app for bibliometrix" package of the R program developed by Aria and Cuccurullo (2017) performed the analysis. The analysis revealed the date ranges and numbers of the studies included in the study, the number of authors and international author collaboration status, the annual trend increases of the studies, the average of publications per year, the reference statistics used, and the average amount of citations per research.

The most prevalent and cited sources have been determined by the software. In terms of authors, those researching RTI the most, the highly cited ones, the scholarly publications of these authors by year, the affiliated institutions and organizations, authors working in collaboration, the countries where the authors conduct research, and the most cited work in countries on RTI were examined. In the context of research document (article), the most cited documents at the global and local level, common citation networks, frequently used words in documents, word cloud, keyword frequency and annual trends in documents, trend topics, networks showing closeness and distance in the use of words were studied.

Results and Discussion

Trends in Annual Publication Data

Examining publication trends and citations on a research topic can guide mapping literature in that discipline. In this study, 477 publications on RTI were identified in the WoS database published between 1997 and 2023. Figure 2 presents the change in the number of publications over the years.

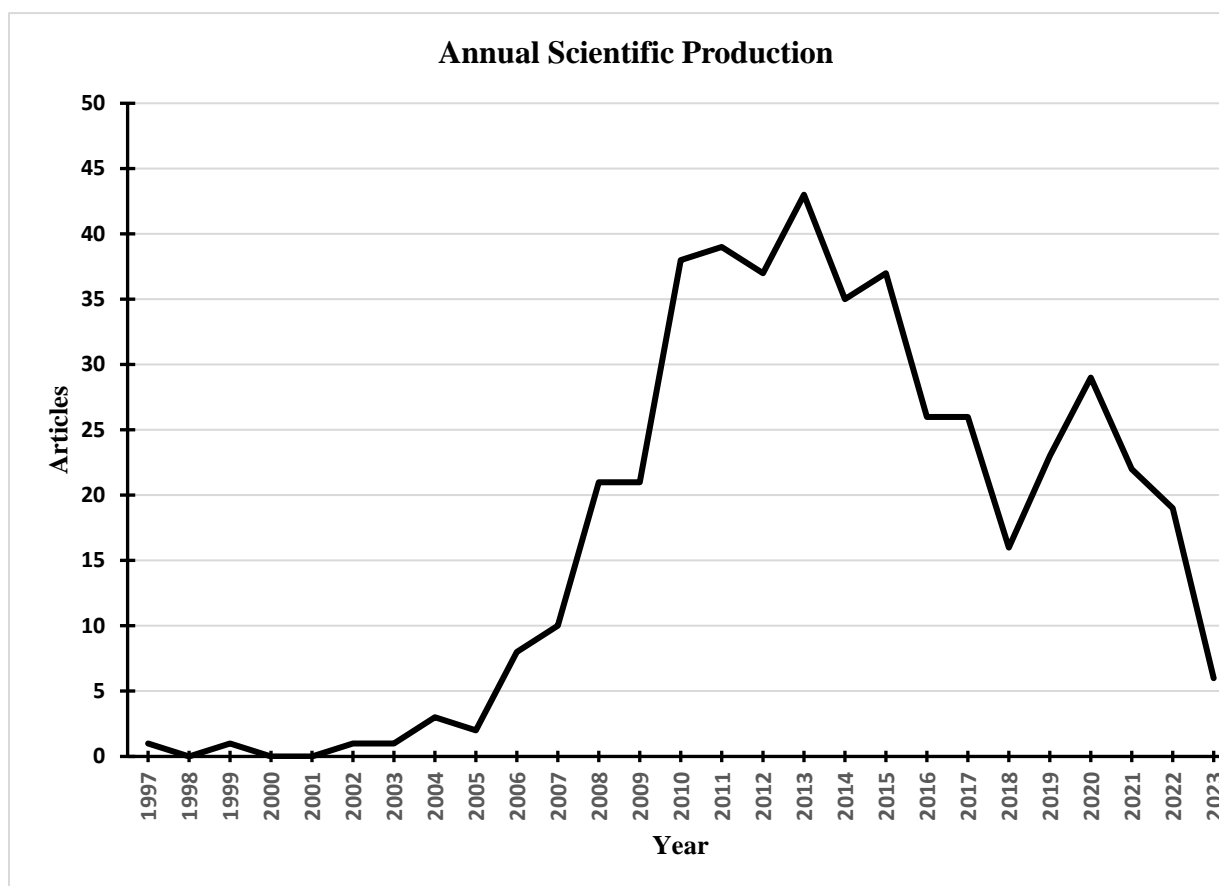


Figure 2. Trends in Annual Publication Data

Although small fluctuations were observed in RTI publications between 1997 and 2006, the production trend can be considered stable. Seventeen articles were published between these years. After 2006, there was a steady increase in publications until 2013. In 2013, the increase in publications reached its peak with 43 articles. After 2013, there was a decrease in the publication trend until 2017, and only 16 articles were published in 2018. 23 RTI articles were published in 2019, 29 in 2020, 22 in 2021 and 19 in 2022. Six articles were issued until May 2023, when this study was written for publication. This trend shows that there has been a decrease in the number of articles produced on RTI in recent years.

Core Journals and Publications

Within the scope of the research, 477 articles from 87 journals were accessed in the RTI-related database. Table 1 lists the journals with a high number of articles. Two journals stand out in RTI research: Journal of Learning Disabilities ($n = 58$) and Learning Disability Quarterly ($n = 53$). These two journals account for approximately 23% of all publications in the database. However, according to the number of citations, the "Journal of Learning Disabilities" journal ranks first with 1194 citations. It is followed by "Exceptional Children" with 877 citations and "Learning Disability Quarterly" with 439 citations. Therefore, while it appears that a significant portion of the RTI studies are published in journals specialized in learning disabilities, some are published in journals focused on the common field of special education. Only one journal (Journal of Positive Behavior Interventions) is related to behavior management. These journals significantly contribute to the field of special education. The earliest journal, Exceptional Children, has been published in the field since 1934. It can be seen that the first research on RTI started in 1997. Relevant journals will likely continue to create the necessary environment for the dissemination of RTI research.

Table 1. Core Journals on RTI Research

Journal	Article	Citations
Journal of Learning Disabilities	58	1194
Learning Disability Quarterly	53	439
Exceptional Children	25	877
Intervention in School and Clinic	24	57
Remedial and Special Education	23	359
Learning Disabilities Research & Practice	18	192
Exceptionality	16	78
Elementary School Journal	14	3
Reading and Writing	14	266
Reading & Writing Quarterly	14	60
Annals of Dyslexia	12	142
Theory into Practice	12	42
Journal of Early Intervention	8	77
Journal of Research on Educational Effectiveness	8	100
Reading Teacher	8	109
Topics in Early Childhood Special Education	8	69
Journal of Positive Behavior Interventions	7	128
The Journal of Special Education	7	1
Psicothema	7	26
Teacher Education and Special Education	7	5

Field-specific journals are important in confirming the dissemination of specialized knowledge, facilitating communication and exchange of ideas between researchers, and contributing to forming scientific communities of experts (Vanderstraeten et al., 2016). Of all the journals in the dataset ($n=87$), 26.43% specialize in special education, and 73.57% concentrate on general education. Despite this, most publications cluster in journals specialized in special education (Table 1) and suggest providing interaction between researchers in the special education field. However, due to the nature of RTI, applications in general education are expected (Fuchs & Stecker, 2010). Therefore, having more than 25% of the research on RTI in journals specialized in special education and learning disabilities can limit the interaction between academic communities from different disciplines. For instance, as Table 1 shows, 14 studies on RTI in the Elementary School Journal received a low number of citations.

Table 2 presents the most cited, i.e., the most influential articles in RTI research. The publications address a variety of topics, including what RTI is and why it should be used, universal screening tools developed for use in RTI, RTI practices, RTI and professional development, RTI models implemented in the United States, and their characteristics, advantages, and challenges of RTI-based service delivery models, and uncovering fundamental and essential disagreements about the nature and purpose of RTI. In addition, a significant number of publications propose RTI models with various characteristics. These include (a) the RTI approach to behavior support in primary school as an approach to the development and feasibility of RTI, (b) Smart RTI, which is described as an alternative model defined as the efficient use of school resources while maximizing opportunities for student achievement, (c) models of RTI developed in kindergarten through third-grade reading that are expanded to address broader academic content areas and all grade levels, (d) RTI developed in the context of early childhood

inclusion, (e) a possible model of RTI for culturally and linguistically diverse students, and (f) the application of RTI to school-wide positive behavior supports (SWPBS).

Table 2. *Most Influential Articles Ranked by Number of Citations*

Title	Journal	Year	Total Citations
Introduction to response to intervention: What, why, and how valid is it?	Reading Research Quarterly	2006	605
Responsiveness-to-Intervention and School-Wide Positive Behavior Supports: Integration of Multitiered System Approaches	Exceptionality	2009	236
Response to Intervention: Preventing and Remediating Academic Difficulties	Child Development Perspectives	2009	206
Special Education Teacher Quality and Preparation: Exposing Foundations, Constructing a New Model	Exceptional Children	2010	182
The “Blurring” of Special Education in a New Continuum of General Education Placements and Services	Exceptional Children	2010	180
Smart RTI: A Next-Generation Approach to Multilevel Prevention	Exceptional Children	2012	173
Implementation of Response to Intervention	Journal of Learning Disabilities	2009	173
Response to Intervention as a Vehicle for Distinguishing Between Children with and Without Reading Disabilities: Evidence for the Role of Kindergarten and First-Grade Interventions	Journal of Learning Disabilities	2006	171
Inclusion for Young Children with Disabilities: A Quarter Century of Research Perspectives	Journal of Early Intervention	2011	161
Cultural considerations with Response to Intervention models	Reading Research Quarterly	2006	150
Response to Intervention: Examining Classroom Behavior Support in Second Grade	Exceptional Children	2007	149
Responsiveness-to-Intervention: A Decade Later	Journal of Learning Disabilities	2012	139
Diagnosis and Treatment of Reading Disabilities Based on the Component Model of Reading an Alternative to the Discrepancy Model of LD	Journal of Learning Disabilities	2008	138
Alternative Approaches to the Definition and Identification of Learning Disabilities: Some Questions and Answers	Annals of Dyslexia	2004	132
Floor Effects Associated with Universal Screening and Their Impact on the Early Identification of Reading Disabilities	Journal of Learning Disabilities	2009	128
The PDD Behavior Inventory: A Rating Scale for Assessing Response to Intervention in Children with Pervasive Developmental Disorder	Journal of Autism and Developmental Disorders	2003	123
Language-Minority Learners in Special Education Rates and Predictors of Identification for Services	Journal of Learning Disabilities	2009	113
Response to Intervention: Empirically Based Special Service Decisions from Single-Case Designs of Increasing and Decreasing Intensity	The Journal of Special Education	2004	106
Critical Issues in Response-To-Intervention, Comprehensive Evaluation, and Specific Learning Disabilities Identification and Intervention: An Expert White Paper Consensus	Learning Disability Quarterly	2010	105

Collectively, it is possible to say that the content of these studies mainly focuses on the features of RTI, its implementation, the challenges encountered in its implementation, and developing suggestions for different application areas. Regarding RTI, almost all essential publications began appearing in the early 2000s. The exponential growth in research in the field began in this period. These publications reinforce the foundations of research in the field of RTI and constitute a turning point in the development of the field.

Top Authors, Institutions, and Countries

The 477 articles in the dataset were published by 1,215 authors affiliated with 388 institutions in 28 countries worldwide. Table 3 shows authors with ten or more publications who pioneered RTI research. LS Fuchs and S Vaughn appear to be the most prolific authors with the most publications, followed closely by D Fuchs and DL Compton. Regarding the number of citations, unlike the number of publications, DL Compton ranks first, followed by LS Fuchs and D Fuchs. Strikingly, while approximately 82% of authors in our dataset produced one publication, only 0.8% produced more than ten publications. This finding shows that expertise in the field of RTI is concentrated around a minimal number of academics.

Table 3. *Top Authors Ranked by Number of Publications*

Author	Institution	Country	Article	Citations
Fuchs, LS	Vanderbilt University	United States	21	31
Vaughn, S	University of Texas	United States	21	19
Fuchs, D	Vanderbilt University	United States	18	31
Compton, DL	Florida State University	United States	16	34
Coyne, MD	University of Connecticut	United States	12	1
Fletcher, JM	University of Houston	United States	12	20
Al Otaiba, S	Southern Methodist University	United States	10	8
Greenwood, CR	University of Kansas	United States	10	15
Schatschneider, C	Florida State University	United States	10	6
Smolkowski, K	Oregon Research Institute	United States	10	7

Note. Only authors with 10 or more publications were included in the table.

Uncovering where researchers publishing on RTI are located provides another insight into the current state of research on RTI. Table 4 shows the institutions leading the RTI research. It lists only the institutions with 15 or more publications; Florida State University has the most publications in its field, followed by Vanderbilt University and the University of Texas Austin. Almost all the institutions in the ranking are from the United States, and only Spain represents Europe. The fact that most publications are from the United States raises questions about the generalizability of RTI in terms of legal regulations, diagnostics, and implementation processes across different cultures. Therefore, RTI publications by researchers from different countries will contribute to the cultural diversity in the literature and increase the potential of its dissemination and use worldwide.

Table 4. *Top Institutions Ranked by Number of Publications*

Institution	Country	Article
Florida State University	United States	75
Vanderbilt University	United States	68
University of Texas Austin	United States	64
University of Kansas	United States	59
University of Oregon	United States	48
University of Connecticut	United States	36
University of Minnesota	United States	34
University of Houston	United States	32
University of Missouri	United States	25
Texas A&M University	United States	24
University of California, Riverside	United States	24
University of North Carolina at Chapel Hill	United States	23
Lehigh University	United States	19
Southern Methodist University	United States	19
University of La Laguna	Spain	18
University of Washington	United States	18
Arizona State University	United States	17

Institution	Country	Article
University of Georgia	United States	17
University of Florida	United States	15

Note. Only institutions with 15 or more publications were included in the list.

Figure 3 presents the countries issuing RTI research, sorted by the number of publications. Of the 477 publications examined in the database, 395 were published in the United States. Publications from the United States appear to be the leader in this field, accounting for 82.8% of the total publications in the database. Moreover, it is noteworthy that 385 of 395 publications from the United States are single-country publications, and only 10 publications are multiple-country publications. Similarly, Figure 3 and Figure 4 demonstrate that only the United States has a high contribution to the dataset, with over 100 publications and over 10,000 citations. There are many reasons for this: (a) Educational Policies and Legislation: The U.S. has solid educational policies and legislation that support and promote RTI. The reauthorization of the Individuals with Disabilities Education Act (IDEA) in 2004 introduced RTI as a model to be used in special education (Wright & Wright, 2007); (b) Research and Development: The U.S. hosts numerous research and development activities that emphasize the importance of evidence-based practices in education. Consequently, there is a robust research infrastructure for developing and implementing innovative approaches like RTI (Fuchs & Fuchs, 2006); (c) Universities and educational organizations are providing training programs that equip teachers and other education professionals with the knowledge and skills necessary to effectively implement RTI practices in their schools and classrooms (Basham et al., 2010; Murakami-Ramvalho & Wilcox, 2012).; (d) Financial Support: U.S. schools and districts have access to federal and state funding to support RTI implementation. This financial support facilitates the practical application of RTI models (Jimerson et al., 2007).

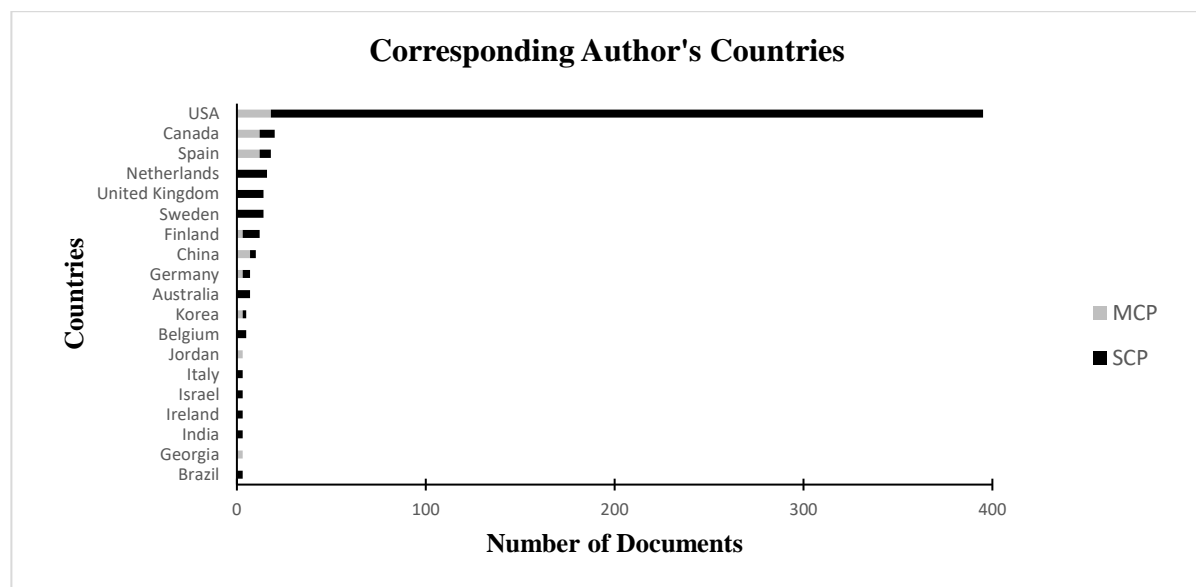


Figure 3. Corresponding Author's Countries

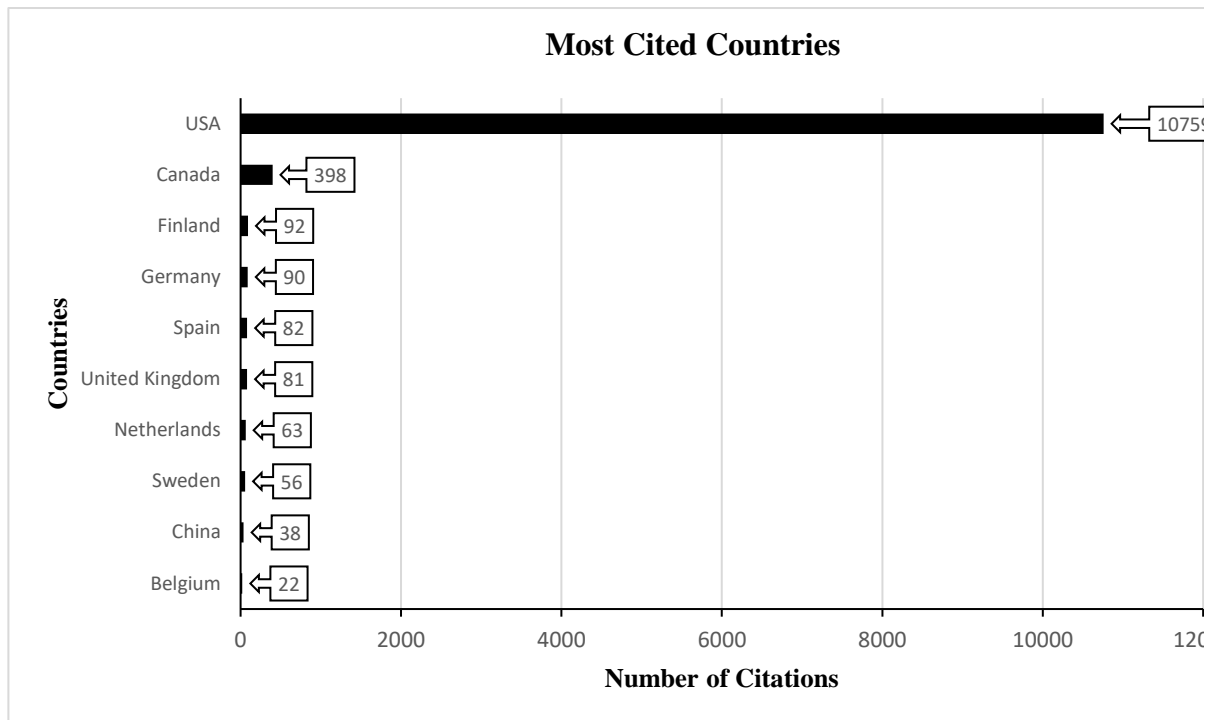


Figure 4. *Most Cited Countries*

Collaborative Networks between Authors, Institutions and Countries/Regions

Several co-authorship analyses have been conducted to examine patterns in scientific collaboration between authors, institutions, and countries in the RTI research. Figure 5 exhibits the collaborative networks among authors who have published on RTI in the dataset. The results show various scientific collaboration networks (i.e., clusters) among researchers. These networks consist of three to nine researchers and often include a lead researcher (i.e., the largest node) as the connecting node among all other researchers. The cluster containing LS Fuchs, D Fuchs, and D Compton and the one that contains S Vaughn are centrally located in the figure. However, both are only well connected to two clusters with relatively lesser density on the map but not to the remaining five. The two clusters in the center show that research collaborations in the field of RTI exist but need to be developed.

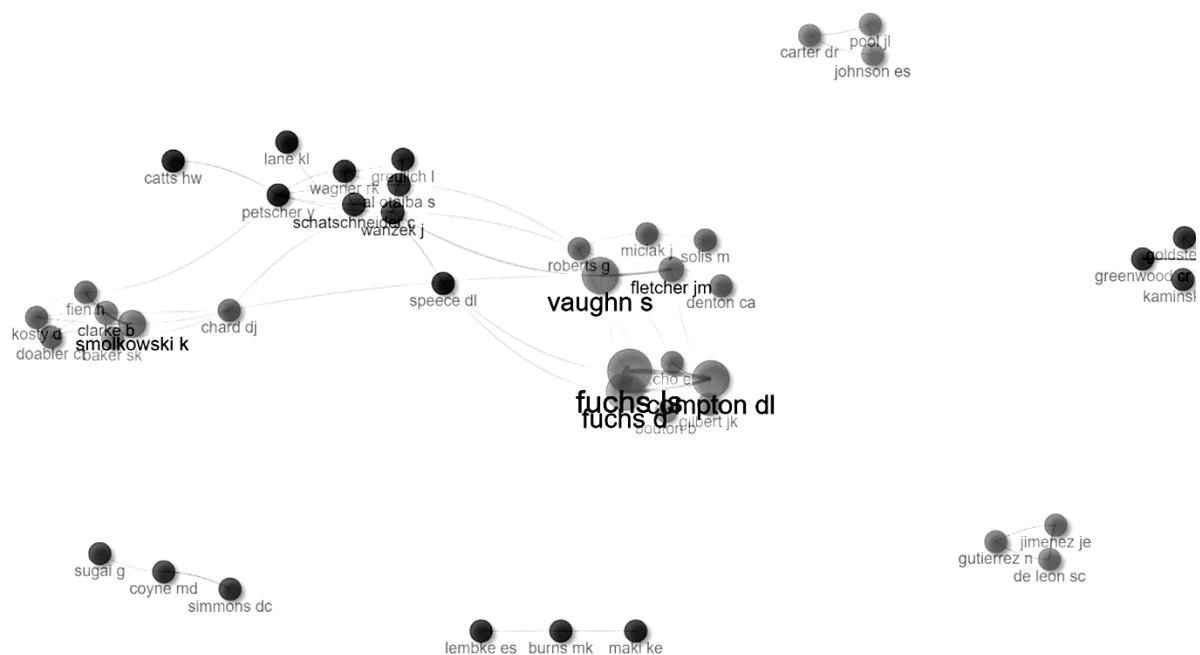


Figure 5. *Collaborative Research Networks between Authors*

Figure 6 shows scientific networks among institutions that publish on RTI. As seen on the map, most of the clusters in the graph show that institutions in the USA cooperate. As well as Florida State University and the University of Texas Austin, Vanderbilt University, the University of Kansas, and the University of Oregon are the leaders in this cooperation.

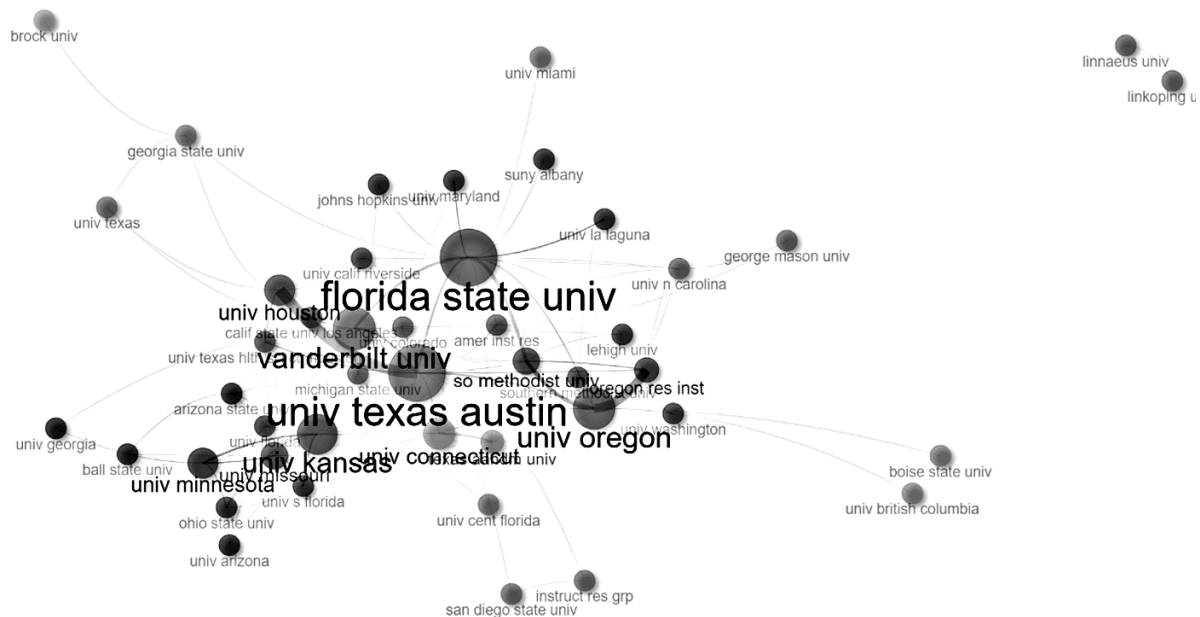


Figure 6. Collaborative Research Networks between Institutions

Figure 7 shows the research collaborations between countries with publications on RTI in the dataset. According to the results, the United States stands at the center of RTI research. The map illustrates the strong ties of the United States with Canada and Spain and weaker ties with Europe, Asian countries, and Australia. Two northern European countries, Luxembourg and Switzerland, have no connections to clusters.

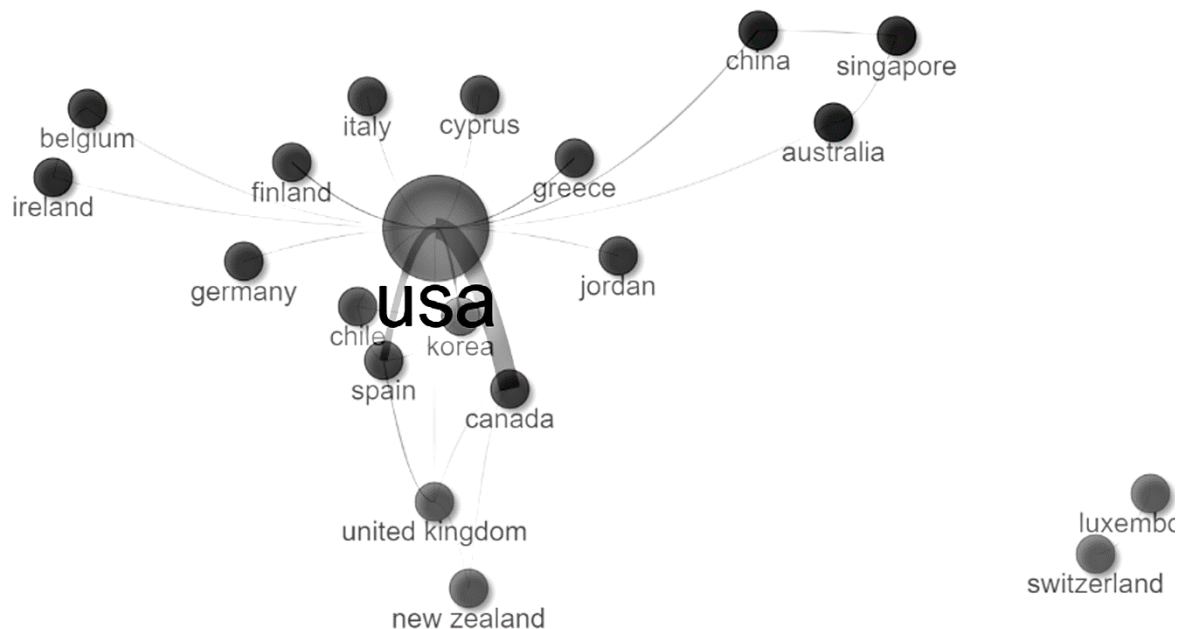


Figure 7. Collaborative Research Networks between Countries

As a result, the United States leads the scientific collaboration networks among authors, institutions, and countries in RTI research. This strong collaboration network in the USA should be developed in other countries to maintain and spread the RTI approach.

Trends of Words Used in Response to Intervention (RTI) Articles and Research

The frequency of words used in RTI research was examined from the bibliographic data of RTI research obtained from WoS. According to the results, RTI was mostly identified with the words children, students, instruction, intervention, disabilities, risk, identification, model, kindergarten, learning disabilities, special education, difficulties, and responsiveness. The popularity or trend of this word network over time was also examined, as displayed in Figure 8.

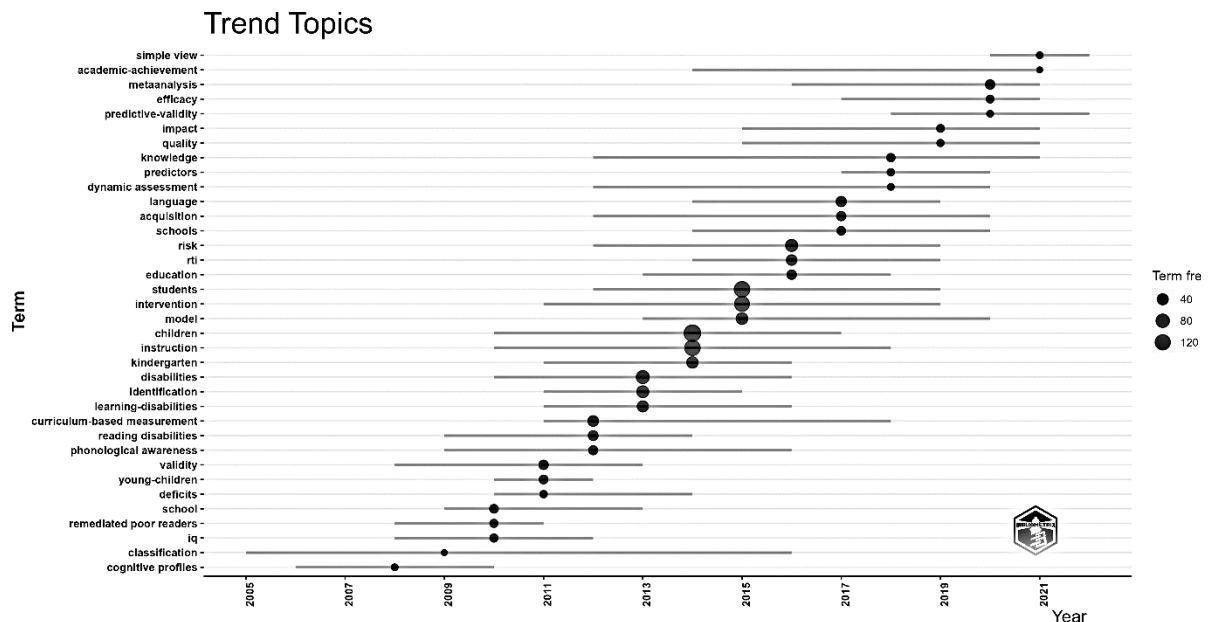


Figure 8. *The Trend of Keywords in RTI Publications over Time*

In the publications between 2005 and 2010, the words classification, cognitive profiles, IQ, remediated poor readers, validity, school, reading disabilities, phonological awareness, young children, deficits, disabilities, children, and instruction were frequently used.

The words curriculum-based measurement, identification, learning disabilities, kindergarten, intervention, students, risk, acquisition, knowledge, dynamic assessment, model, education, RTI, language, schools, academic achievement, impact, and quality were commonly used in publications between 2011 and 2015. Finally, in publications between 2016 and 2023, words like meta-analysis, predictors, efficacy, predictive validity, and simple view were the most common. Figure 9 illustrates the use of words in a network and word affinities.

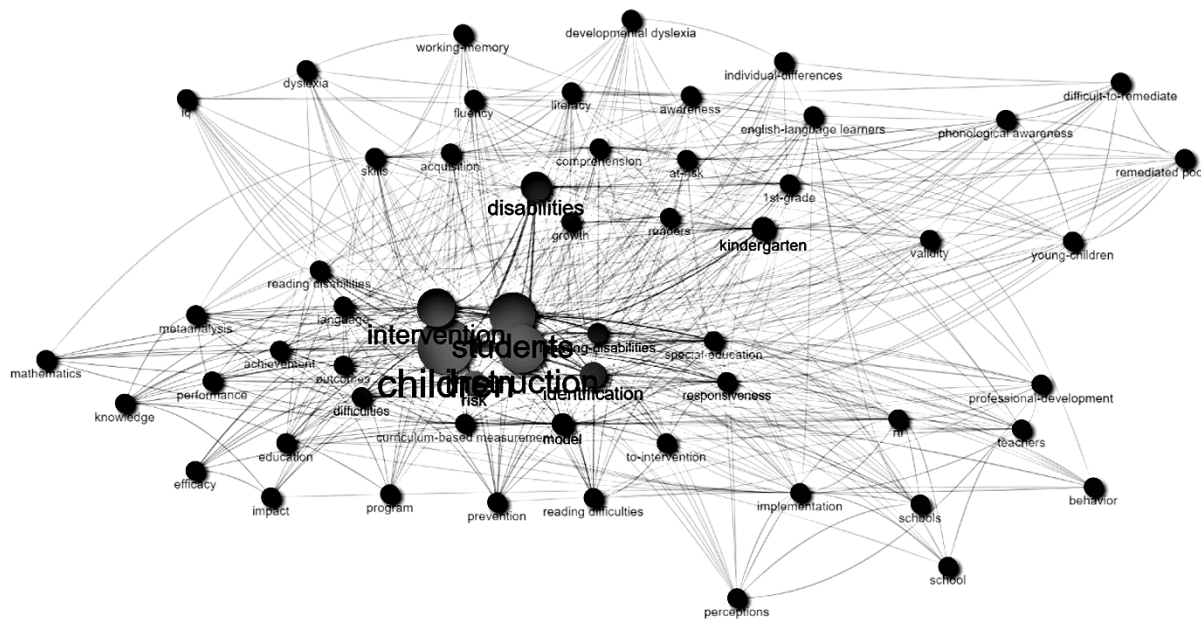


Figure 9. Network of Word Usage in RTI Publications

Figure 9 shows that the word network forms four groups. While two groups stayed more denser, two remained on the outer periphery. The first group with a dense network includes the words children, students, instruction, intervention, identification, language, reading, disabilities, model, achievement, learning disabilities, difficulties, special education, mathematics, knowledge, performance, efficacy, curriculum-based-measurement, program, impact, prevention, reading difficulties. The second group on RTI includes the words disabilities, kindergarten, IQ, dyslexia, working memory, developmental dyslexia, individual differences, awareness, at risk, readers, comprehension, literacy, fluency, acquisition, skills, and growth. In the third and outer peripheral group, words are professional development, RTI, teachers, behavior, schools, perceptions, and implementation. The fourth and outer peripheral group includes the words difficult-to-remediate, phonological awareness, remediated poor readers, and young children.

Discussion

This study provides an overview of the development and status of research on response to intervention over the last 27 years, based on data available in the WoS database. The results show that as a developing field of study, RTI research increased exponentially until 2013, but the number of studies has drastically decreased. The decline in the RTI investigation numbers may have resulted from a combination of factors. One of these may be ensuring data maturity regarding RTI. RTI was introduced in the early 2000s and was rapidly adopted. It has become a hot topic, especially among researchers interested in student learning and interventions. With the publication of the "Individuals with Disabilities Education Act" (IDEA) (2004) in the United States in 2004, RTI practices increased throughout the country since the IDEA regulation that is accepted to include the RTI approach recommends a systematic monitoring, intervention, and screening process to determine a child's response to scientifically based intervention (Fuchs et al., 2010; Stuart et al., 2011). RTI practices received great interest and popularity during this period; therefore, more research was conducted. However, over time, significant information has accumulated about the effects and feasibility of RTI, and thus, the need for new research may have diminished. In addition to RTI, other educational approaches and intervention models have been developed in the field of education. By focusing on these developed approaches and models, researchers may have begun to examine different topics from RTI research. Another factor may be that educational priorities and urgent needs have changed over time, especially in recent years; the prevalence of issues such as distance education has come to the fore in the education field, which may have caused a decrease in RTI research. Since RTI research covers practices in schools, online learning during the pandemic made the applied research difficult. This fact may be another reason for the decline in RTI research in recent years. Despite the changes in priorities and needs over time, RTI or similar approaches may again receive greater research interest in the future.

In the studies published in the database between 2005 and 2010, the terms "classification, cognitive profiles, IQ, remediated poor readers, validity, school, reading disabilities, phonological awareness, young children, deficits

disabilities, children, instruction" were frequently used. Students' reading difficulties, cognitive profiles, and issues such as the classification and validity of reading difficulties have gained importance during this period. In the years 2011-2015, "curriculum-based measurement, identification, learning disabilities, kindergarten, intervention, students, risk, acquisition, knowledge, dynamic assessment, model, education, RTI, language, schools, academic achievement, impact, and quality" were emphasized. During this period, among the common topics were diagnosing learning disabilities, curriculum-based measurement, and response approaches. During the years 2016-2023, terms such as "meta-analysis, predictors, efficacy, predictive validity and simple view" became more prominent. In this period, more emphasis was given to meta-analysis studies summarizing research results and predicting student success. The changing emphasis of these terms may reflect how educational priorities and research methods have transformed over time. Such analysis can help us better understand educational research's evolving trends and focuses.

Finally, RTI research confirms that the United States leads the scientific collaboration networks between authors, institutions, and countries, with well-established collaboration networks mostly strong among authors and institutions within the United States. The contribution of researchers in other countries to scientific literature is limited. Educational intervention models such as RTI enable opportunities for collaboration internationally. Such collaboration can promote international sharing and development of educational practices and effective methods. Countries, researchers, and educators can share best practices on effective education intervention models such as RTI. In addition, international collaboration can provide opportunities to collect and review data internationally to evaluate and improve the efficiency of RTI practices. Comparative analysis of RTI programs in different countries can offer broader perspectives with its adaptable feature across different cultures. Hence, international collaboration can provide knowledge and perspective on how best to adapt the RTI model in different cultures.

Limitations and Recommendations

Although bibliometric analysis is a powerful tool for reviewing and analyzing scientific literature, such studies have some limitations in their bibliographic data. Additionally, the data source may only cover some scientific literature, which may restrain the scope of the analysis. Only the research findings in the WoS database were considered in this study. A comprehensive picture of the RTI literature was created with an investigation limited to the WoS collection, which constitutes a limitation of the research. It does not entail literature accessed through Scopus, ERIC, PsyInfo, PubMed, or other publications such as books, book chapters, or conferences. Future studies should examine literature using alternative databases (e.g., Scopus, ERIC, PsyInfo, PubMed) and additional publication types other than articles.

Another limitation of the study is the keywords selected for the search. The term multi-tiered systems of support (MTSS), which also encompasses RTI implementations, was not included among the keywords. Multi-Tiered Systems of Support (MTSS) and Response to Intervention (RTI) are both frameworks used in education to provide targeted support to students. While they share similarities, there are distinct differences between the two. MTSS adopts a holistic child approach addressing multiple aspects of a student's development, while RTI specifically aims to identify and support students with learning and behavior difficulties. Therefore, our recommendation for a future bibliometric study is to examine studies that include academic, behavioral, and social-emotional supports within the scope of the MTSS approach.

As in all bibliometric studies, the quality or content of the studies examined in this study was not evaluated; only quantitative results based on a specific metric or indicator were presented. Despite these limitations, this study is believed to provide a comprehensive review of the literature on RTI and provides helpful insights into the development of the field for future research.

Ethical Approval

We, the authors, declare that the study named "**Response to Intervention: A Bibliometric Mapping**" does not require an Ethics Committee Approval since it typically involves the analysis of publicly available data, such as research publications, citations, and bibliographic information

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