International Journal of Innovative Research and Scientific Studies, 8(2) 2025, pages: 420-427

IJIRSS
International Journal of Innovative Research & Scientific Studies

ISSN: 2617-6548

URL: www.ijirss.com

The predictive relationship between teachers' lateral thinking tendencies and their preferred classroom management and teaching approaches

Münevver M YILDIRIM[1], Soner YILDIRIM[2*], Esin METLILO[3], Bilal YILDIRIM[4]

[1,2]*University of Prizren `Ukshin Hoti`, Faculty of Education, Kosovo.*
[3]*Primary School Emin Duraku, Kosovo.*
[4]*Faculty of Education Necatibey, University of Balikesir, Turkey.*

Corresponding author: Soner YILDIRIM (*Email: soner.yildirim@uni-prizren.com*)

Abstract

The aim of this study is to determine the predictive relationships between teachers' lateral thinking dispositions and their preferences for classroom management and teaching approaches in Türkiye and Kosovo. The study is quantitative research in a relational survey model. The study group consists of 334 teachers working in preschool, primary, secondary, and high schools in Türkiye and Kosovo. The study group was selected using the convenience sampling method. Data were collected with the "Lateral Thinking Disposition Scale" by Yıldırım [1], the "Classroom Management Approaches Scale" by Metlilo and Yildirim [2], and the "Teaching Approaches Scale" by Tezci [3] during the spring semester of the 2023-24 academic year. In the study, Pearson Correlation was used to determine the relationship between teachers' lateral thinking tendencies, classroom management approaches, and instructional approaches, while regression analysis was used to determine the prediction levels. According to the findings of the study, there was a weak significant relationship between lateral thinking tendency, classroom management approaches, and teaching approaches of teachers in Türkiye and Kosovo. A moderate relationship was found between the reactive sub-dimension of classroom management approaches and the teacher-centered sub-dimension of teaching method approaches, as well as between the developmental sub-dimension of classroom management approaches and the teacher-centered sub-dimension of teaching method approaches. In the regression analysis of the total teaching approaches of the teachers working in Türkiye and Kosovo, a significant predictive relationship was found between the total classroom management and lateral thinking tendencies.

Keywords: Lateral thinking tendency, Classroom management, Teaching approaches.

DOI: 10.53894/ijirss.v8i2.5190
Funding: This study received no specific financial support.
History: Received: 14 January 2025 / **Revised:** 13 February 2025 / **Accepted:** 18 February 2025 / **Published:** 7 March 2025

Competing Interests: The authors declare that they have no competing interests.
Authors' Contributions: Conceptualization, K.A. and K.B.; methodology, A.K. and Zh.K.; software, K.A. and K.B.; data curation, K.A., K.B. and Zh.I. writing – original draft preparation, K.A., K.B and Zh.K., Zh.I. and S.L.; writing – review and editing, K.A. and K.B.; supervision, K.A. All authors have read and agreed to the published version of the manuscript.
Transparency: The authors confirm that the manuscript is an honest, accurate, and transparent account of the study; that no vital features of the study have been omitted; and that any discrepancies from the study as planned have been explained. This study followed all ethical practices during writing.
Publisher: Innovative Research Publishing

1. Introduction

As far as is known in the living world, only humans have the ability to think [4]. Thinking is defined as the active participation of the brain in mental activities Tos [5], the way an individual perceives the events taking place around him/her Saban [6], and all problem-solving activities [7]. Thinking is a mental process. With thinking, the individual tries to produce

solutions to existing problems. While producing solutions, they research, criticize, and discuss [8]. People have different thinking memories. The difference in thinking memories leads to differences in the cerebral processes of individuals. Lateral thinking is expressed as a latent power and a structure of thought based on these differences [9].

Lateral thinking is a concept first introduced by De Bono [10]. According to De Bono [10], lateral thinking is an unusual type of thinking. Some problems are very difficult to solve and bring to a conclusion. For these problems, more than one solution needs to be produced and applied. Lateral thinking involves possibilities and is a cognitive process for generating more than one solution to difficulties and creating approaches using more than one perspective [11-13]. Lateral thinking is the generation of new ideas by getting rid of old ideas [11]. Lateral thinking is a way of thinking that focuses on the basis of the problem, generating and testing more than one idea [14]. Lateral thinking has the feature of multiple thinking. According to De Bono [11], lateral thinking is very productive and involves making an effort to find a solution. Lateral thinking gives importance to internal motivation rather than external motivation and acts according to induction rather than deduction. It utilizes the creativity of individuals. In the lateral thinking process, there are three stages: defining the problem, generating solutions, and deciding on the best solution. According to these stages, the individual defines the problem, proposes more than one solution to the problem, and decides on the right solution [11].

Generating more than one solution with lateral thinking can be expressed as a way of thinking that teachers also need in the educational process. Teachers can eliminate negativity by generating alternative solutions for the problems they encounter in the institution or classroom environment [15]. Teachers can ensure the realization of effective teaching with basic teaching skills [16]. Effective teaching is shaped by teachers' ways of thinking in classroom management skills. Classroom management is a set of functions that includes all planning, implementation, and evaluation activities in line with the aims of education and training, and in which systematic techniques acting within the framework of principles, theories, and concepts are applied [17]. Classroom management involves ensuring discipline in the classroom environment Gay [18] and creating a positive classroom environment instead of problem behaviors [19].

Classroom management is a structure that is based on teaching and exists with human management and discipline. Classroom management consists of five dimensions: the physical arrangement of the classroom, planning and programming, rules, and communication within the classroom (Başar [20]). For the existence of effective teaching in classroom management, attention should be paid to the correct selection of discipline models. Correctly selected discipline models can be seen as a guarantee of effective teaching [21]. Classroom management models have their own origins [22]. Discipline models provide guidance for teachers to use different methods to achieve the targeted outcomes [23]. Teachers have the right to choose more than one model in the classroom management process. The important thing is that successful teaching can be realized [24].

Classroom management approaches are classified as reactive, preventive, developmental, and holistic. The reactive classroom management approach is a reflection of classical management [20]. The reactive approach is the type of approach in which students are controlled from the outside, and the existence of rewards and punishments is mentioned [25]. The preventive approach involves the perception and prevention of undesired behavior in advance [26]. When used in a strong and effective way, the preventive approach leads to success in classroom management [27]. The developmental approach focuses on the developmental characteristics of the student. This approach, which requires extensive knowledge about students, helps the teacher in organizing the plan and program, the methods and techniques to be used, and the strategies to be preferred [17]. The holistic approach is a combination of reactive, preventive, and developmental approaches, and in this approach, transitions between approaches are provided and implemented according to the situation [28]. All approaches facilitate the work of teachers and help maintain students' motivation. The continuity of motivation is directly related to the preferred teaching methods.

In the process of student-teacher interaction, the teaching approaches preferred or used by the teacher also play a major role. The teaching approach includes the teaching method and various techniques that a teacher chooses to achieve a goal in teaching a subject. The teaching method encompasses all of the applications made to achieve the goal of the approach [29]. It is a very complicated process for a teacher to conduct a lesson without a plan, program, and preparation. Therefore, every teacher needs to complete the lesson preparation in advance and determine the appropriate teaching approach for the lesson. In this case, the most appropriate approach, method, and technique for teaching can be selected by utilizing lateral thinking.

Looking at the history of teaching approaches, it is seen that one approach is structured on the basis of the previous approach. Jacobsen, et al. [30] classify teaching approaches as presentation, invention, and inquiry [31]. The presentation approach is teacher-centered, where information is transferred by the teacher [32]. Invention teaching is student-centered, with the teacher acting as a guide. Students are encouraged to solve problems independently [33]. In inquiry-based teaching, students are presented with a problem situation and are encouraged to conduct research with the help of the scientific method [34]. Since there is no direct research examining the relationship between teachers' lateral thinking, classroom management approaches, and instructional approach preferences, the problem statement of this study was determined as: *"Is there a significant relationship between teachers' lateral thinking tendencies, classroom management approach preferences, and their preferred instructional approaches?"*

2. Purpose of the Study

The aim of this study is to determine the predictive relationships between teachers' lateral thinking tendencies and the classroom management approaches adopted, as well as the preferred teaching approaches according to teachers' views. For this purpose, the following questions were sought to be answered:

1- What is the level of lateral thinking tendencies, classroom management, and instructional approach preferences of teachers in Türkiye and Kosovo?

2- Is there a significant relationship between lateral thinking tendencies, classroom management, and the teaching approaches of teachers working in Türkiye and Kosovo?

3- Do the lateral thinking tendencies of teachers working in Türkiye and Kosovo predict their classroom management and teaching approach preferences at a significant level?

4- Do lateral thinking tendencies and classroom management approach preferences of teachers working in Türkiye and Kosovo significantly predict their teaching method preferences?

3. Method

This study was conducted using the relational survey model to reveal the predictive relationships between the lateral thinking tendencies of teachers working in Türkiye and Kosovo and their preferred classroom management and teaching approaches comparatively. The relational survey model is a study conducted to determine the cause-and-effect relationships between two or more variables.

3.1. Study Group

The study group of the research consists of 334 teachers working in preschool, primary, secondary, and high schools in Türkiye and Kosovo. The study group was selected using the convenience sampling method.

3.2. Data Collection

Data were collected using the Lateral Thinking Disposition Scale (Yıldırım [1]), the Classroom Management Approaches Scale (Metlilo and Yildirim [2]), and the Teaching Approaches Scale (Tezci [3]) in the spring semester of the 2023-24 academic year.

Lateral Thinking Tendency Scale: The Lateral Thinking Tendency Scale was introduced to the literature by Yıldırım [1]. The scale consists of six sub-dimensions and 20 items. The overall reliability coefficient of the scale is ά = .710.

Table 1.
Normality values of lateral thinking disposition scale.

Fields of Thinking	Descriptives	Statistic	Std. Error
LTD White	Skewness	-.282	.133
	Kurtosis	-.503	.266
LTD Red	Skewness	-.543	.133
	Kurtosis	.423	.266
LTD Black	Skewness	.211	.133
	Kurtosis	-.244	.266
LTD Yellow	Skewness	-.178	.133
	Kurtosis	-.238	.266
LTD Green	Skewness	.019	.133
	Kurtosis	-.152	.266
LTD Blue	Skewness	-.033	.133
	Kurtosis	.151	.266

When Table 1 is examined, it is understood that the Lateral Thinking Tendency scale shows a normal distribution in all sub-dimensions.

Classroom Management Approaches Scale: The Classroom Management Scale was introduced to the literature by Metlilo and Yildirim [2]. The scale consists of four sub-dimensions and 19 items.

Table 2.
Normality Values of Classroom Management Approaches Scale.

CMA Sub-dimensions	Descriptives	Statistic	Std. error
CMA Reactive	Skewness	.133	.133
	Kurtosis	.266	.266
CMA Precautionary	Skewness	-.473	-.473
	Kurtosis	-.383	-.383
CMA Developmental	Skewness	-.641	-.641
	Kurtosis	.501	.501
CMA Holistic	Skewness	.133	.133
	Kurtosis	.266	.266

When Table 2 is examined, it is understood that the Classroom Management Approaches scale shows a normal distribution in all sub-dimensions.

Teaching Approaches Scale: Teaching Approaches Scale was adapted into Turkish by Tezci [3] and introduced to the literature. The scale consists of two sub-dimensions and 22 items.

Table 3.
Normality Values of Teaching Approaches Scale.

Teaching Approaches	Descriptives	Statistic	Std. Error
TA Teacher-Centered	Skewness	-.250	-.250
	Kurtosis	.133	.133
TA Student-Centered	Skewness	-.517	-.517
	Kurtosis	.266	.266

When Table 3 is examined, it is understood that the Teaching Approaches Scale shows normal distribution in all sub-dimensions.

3.3. Data Analysis

Statistical package programs were used to analyze the data. Arithmetic averages, Pearson Correlation Analysis for the relationship between the dimensions according to the groups, and simple linear stepwise analysis for predictive ability were performed.

4. Results

First Sub-Problem: Comparison of lateral thinking tendencies, classroom management approach preferences, and instructional approach preferences of teachers in Türkiye and Kosovo by country and gender.

The results of the analysis of the averages of lateral thinking tendencies, classroom management approaches, and instructional approaches perceptions of teachers in Türkiye and Kosovo, categorized by country and gender, are given in Table 4.

Table 4.
Arithmetic mean perception levels of lateral thinking, classroom management, and teaching approaches of teachers in Turkey and Kosovo by country and gender.

	Türkiye		Kosovo	
	M		M	
	Female	Male	Female	Male
White	4.11	3.87	4.12	4.11
Red	3.99	3.88	3.88	3.76
Black	3.41	3.60	3.58	3.63
Yellow	3.87	3.81	4.07	4.09
Green	3.33	3.29	3.59	3.57
Blue	3.59	3.68	3.79	3.78
Reactive	4.28	4.32	4.36	4.44
Precautionary	4.37	4.24	4.25	4.33
Developmental	4.47	4.40	4.49	4.42
Holistic	4.44	4.26	4.40	4.37
Teacher M	4.28	4.29	4.33	4.25
Student M	4.42	4.26	4.25	4.27

When Table 4 is examined, it is seen that the lateral thinking tendency of female teachers working in Türkiye (M=4.11) and Kosovo (M=4.12) is high in the white sub-dimension, while the tendency of male teachers working in Türkiye to think with the white hat (M=3.88) is relatively lower. A similar situation is observed in other lateral thinking sub-dimensions.

The highest preference of female teachers in Türkiye for classroom management approaches was the holistic approach (M=4.44), while the highest preference of male teachers in Kosovo was the reactive approach (M=4.36). It is understood that male teachers have a relatively higher tendency to prefer classroom management approaches than female teachers in both countries. In terms of preferences for instructional approaches, the levels of male and female teachers in both countries are high, and female teachers in Türkiye prefer the student-centered approach more than male teachers.

Second Sub-Problem: The Relationship between Lateral Thinking Dispositions, Classroom Management Approaches, and Teaching Approaches of Teachers in Türkiye and Kosovo.

When Table 5 is examined, it is seen that there is a weakly significant relationship between the lateral thinking tendency in the white sub-dimension and all sub-dimensions of classroom management approaches (white-reactive (r=.305), white-actional (r=.245), white-developmental (r=.276), and white-wholistic (r=.325)) and instructional approaches sub-dimensions (white-teacher-centered (r=.343) and white-student-centered (r=.365)) of teachers working in Türkiye and Kosovo. There is also a weak significant relationship between the red sub-dimension of lateral thinking disposition and all sub-dimensions of classroom management (red-responsive (r=.270), red-preemptive (r=.238), red-developmental (r=.248), and red-wholistic (r=.304)) and instructional approaches (red-teacher-centered (r=.259) and red-student-centered (r=.250)). There is a weak (r=.274) significant relationship between the lateral thinking disposition in the black sub-dimension and the classroom management reactive sub-dimension (r=.317) and instructional approaches teacher-centered sub-dimension. However, there is a very weak significant relationship between the lateral thinking disposition in the black sub-dimension and classroom

management approaches sub-dimensions of black-preemptive (r=.174), black-developmental (r=.196), black-wholistic (r=.110), and instructional approaches student sub-dimension (r=.110).

Table 5.
Pearson Correlation Analysis Results for Determining the Relationship between Lateral Thinking Dispositions, Classroom Management Approaches, and Teaching Approaches of Teachers in Türkiye and Kosovo.

		Reactive	Preventive	Developmental	Holistic	Teacher	Student
White	r	.305**	.245**	.276**	.325**	.343**	.365**
	p	.000	.000	.000	.000	.000	.000
Red	r	.270**	.238**	.248**	.304**	.259**	.250**
	p	.000	.000	.000	.000	.000	.000
Black	r	.317**	.174**	.196**	.111*	.274**	.110*
	p	.000	.001	.000	.043	.000	.045
Yellow	r	.307**	.273**	.219**	.234**	.277**	.122*
	p	.000	.000	.000	.000	.000	.026
Green	r	.225**	.238**	.139*	.237**	.257**	.199**
	p	.000	.000	.011	.000	.000	.000
Blue	r	.285**	.243**	.267**	.257**	.333**	.234**
	p	.000	.000	.000	.000	.000	.000
Reactive	r	1	.388**	.389**	.357**	.474**	.274**
	p		.000	.000	.000	.000	.000
Preventive	r		1	.605**	.595**	.284**	.456**
	p			.000	.000	.000	.000
Developmental	r			1	.598**	.355**	.464**
	p				.000	.000	.000
Holistic	r				1	.387**	.503**
	p					.000	.000

It was determined that there was a weak significant relationship between the yellow sub-dimension of lateral thinking disposition and all sub-dimensions of classroom management approaches: yellow-responsive (r=.307), yellow-preemptive (r=.273), yellow-developmental (r=.219), and yellow-collective (r=.234), as well as the teacher-centered sub-dimension of teaching approaches (r=.277). There is a very weak relationship between the lateral thinking disposition yellow sub-dimension and the student-centered teaching approach (r=.122). There is a weak significant relationship between the lateral thinking disposition and the green-reactional (r=.225), green-preemptive (r=.238), and green-integrative (r=.237) sub-dimensions of classroom management approach, as well as the teacher-centered teaching approach sub-dimension (r=.257).

The highest relationship (r = .503) was observed between the holistic approach to classroom management and the student-centered teaching approach. The lowest relationship (r = .110) was between the lateral thinking tendency in black hat and preferences for the holistic classroom management approach.

Third Sub-Problem: Regression Analysis of Teachers' Teaching Approaches, Classroom Management Approaches, and Lateral Thinking Dispositions in Türkiye and Kosovo.

Table 6.
Regression Analysis on the Prediction of Lateral Thinking Dispositions of Turkish and Kosovo Teachers' Classroom Management Approaches.

Non-Std. Coefficient						Std. Coefficient						
Model		**F**	**P**	**B**	**Std. Error**	**Beta**	**R**	**R^2**	**t**	**p**	**CI**	**VIF**
1	Constant	78.906	.000[b]	2.717	.189	.438	.190	.192	14.35	.000	1.000	1.000
	LTD			.434	.050				8.88	.000	18.80	

Note: a. Predictors: (Constant), LTD.
b. Dependent Variable: CM

When Table 6 is examined, it is seen that classroom management preference explains F = 78.906, p < 0.00, and 19.2% of the variance (R^2 = .192) of instructional approach preference according to the regression model related to the instructional approach preference of teachers working in Türkiye and Kosovo. Classroom management preference predicts the preference for instructional approaches positively and significantly (ß = .438, t = 14.35, p = .00).

Fourth Sub-Problem: Lateral Thinking Dispositions of Teachers in Türkiye and Kosovo. Regression Analysis of Classroom Management Approaches and Teaching Approaches.

According to the data in Table 7, there is a significant predictive relationship between lateral thinking disposition and classroom management approach preference of teachers working in Türkiye and Kosovo. According to regression analysis model-1, it is seen that it explains 33.9% of the variance in the dependent variable (R^2 = .339) with F = 171.492, p < 0.00. Classroom management predicts lateral thinking tendency positively and significantly (ß = .438, t = 1.08, p = .00).

Table 7.
Regression Analysis on the Prediction of Teachers' Lateral Thinking Disposition and Classroom Management Approach Preferences on Instructional Approach Preferences in Türkiye and Kosovo.

Non-Std. Coefficient						Std. Coefficient						
Model		**F**	**P**	**B**	**Std. Error**	**Beta**	**R**	**R^2**	**t**	**p**	**CI**	**VIF**
1	Constant	171.492	.000[b]	1.868	.186	.438	.584[a]	.339	10.08	.000	1.000	
	CM			.433	.042				13.09	.000		1.000
2	Constant	98.155	.000[c]	1.522	.202	.497 .198	.610[b]	.368	7.55	.000	1.000	1.238
	CM			.471	.046				10.25	.000	.808	
	LTD			.190	.047				4.087	.000	.808	1.238

Note: a. Dependent Variable: TA
b. Predictors: (Constant), CM
c. Predictors: (Constant), CM total, LTD.

According to the data in Table 7, a significant predictive relationship was found between lateral thinking disposition, classroom management preference, and instructional approaches preference of teachers working in Türkiye and Kosovo. According to the regression analysis model-2, lateral thinking disposition and classroom management approach preference together (F=98.155, p<0.00) explained 36.8% of the variance (R2=.368) of the dependent variable, teaching method preference. Accordingly, lateral thinking disposition and classroom management approach preference can significantly predict instructional approach preference.

5. Discussion and Conclusions

The lateral thinking tendencies of teachers working in Türkiye and Kosovo are at high levels. The classroom management approach preferences of the teachers working in Türkiye and Kosovo are very close to each other and at high levels. In addition, it was determined that the teaching approach preferences of the teachers working in Türkiye and Kosovo were also at a high level.

When teachers encounter a problem, it is necessary for them to use cognitive flexibility skills (Martin and Anderson [15]) and lateral thinking skills, which are essential for them to search for the causes and solutions, to feel capable of producing solutions to the problems they face, and to be flexible in the face of new situations they encounter. A teacher with lateral thinking skills possesses both productive and divergent thinking abilities [12, 13, 35, 36]. In line with the findings obtained, it is evident that teachers working in both countries attach importance to lateral thinking skills, classroom management, and teaching approaches. In the study by Yıldız and Yılmaz [37] on prospective teachers, it was determined that the lateral thinking tendencies of prospective classroom teachers were at an adequate level. Similarly, Semerci [38] investigated the lateral thinking tendencies of pedagogical formation students and reported that the lateral thinking tendencies of the students were at a moderate level.

Although it varied according to the sub-dimensions, weak or moderately significant relationships were found between teachers' lateral thinking dispositions and classroom management approaches, as well as teaching approach preferences. This finding suggests that teachers' lateral thinking skills may affect their classroom management approaches and teaching method preferences. The finding of weakly significant relationships between lateral thinking and the sub-dimensions of classroom management approaches, especially in the white sub-dimension, suggests that teachers' tendency to think more creatively and flexibly affects their classroom discipline and management styles [39]. The more significant relationships between the red and white thinking sub-dimensions of lateral thinking and classroom management sub-dimensions indicate that teachers adopt more strategic and creative approaches in lateral thinking and classroom management practices. In the yellow sub-dimension of lateral thinking tendency, a weaker relationship was observed between classroom management approaches and teaching approaches. This finding reveals that teachers reflect their lateral thinking processes in traditional teaching approaches and are less flexible or creative in their classroom practices [40]. On the other hand, this study also revealed that preferences for classroom management approaches positively influenced preferences for instructional approaches. The finding that classroom management had the strongest effect on instructional approaches suggests that teachers consider their classroom management skills when determining instructional strategies in the classroom. This result supports the strong relationship between classroom management and teaching methods [41]. In particular, the fact that reactive and precautionary approaches to classroom management guide instructional approaches may stem from teachers' belief in the necessity of controlling students' behaviors and effectively managing the teaching process [42]. The fact that lateral thinking dispositions influence instructional approaches reveals teachers' tendency to support students in adapting to different ways of thinking. In particular, the effect of white and red lateral thinking dispositions on teaching approaches means that teachers can increase their flexibility and creativity in education and thus develop more effective teaching strategies. This finding also shows that teachers' innovative and strategic thinking skills in the educational process offer them significant advantages in diversifying teaching methods Anderson and Krathwohl [43].

Yilmaz [44] and Şahin-Taşkın and Esen-Aygün [45] concluded that the lateral thinking dispositions of pre-service classroom education and preschool teachers differed significantly according to grade level. In these studies, it was concluded that the lateral thinking tendencies of 1st, 2nd, and 3rd grade pre-service teachers were significantly lower than those of pre-service teachers studying at the 4th grade level.

In the regression analysis findings regarding the lateral thinking tendency of teachers working in Türkiye and Kosovo, a significant predictive relationship was found between classroom management approach preference and instructional approaches preference. Lateral thinking tendency positively and significantly predicts classroom management approach

preference. At the same time, in the regression analysis of teachers' preferences for instructional approaches, a significant predictive relationship was found between classroom management approach preference and lateral thinking tendencies. The findings show that classroom management has the highest effect on instructional approaches. It can be said that teachers' lateral thinking tendencies and classroom management and teaching approaches develop together. If lateral thinking is considered as addressing the problem from different perspectives by using imagination instead of traditional thinking or logic (Onargan, et al. [46] and Karalı [47]), it can be stated as an expected result that teachers' lateral thinking tendencies are related to classroom management and teaching approaches.

When the direction and level of the relationship between lateral thinking and preferred classroom management and teaching approaches were examined, it was found that there was a significant and positive relationship between lateral thinking and classroom management and teaching approaches. Research draws attention to the fact that individuals should have lateral thinking tendencies in order to use multiple perspectives [44]. Accordingly, teachers who encounter many students with different thinking skills should review their own thinking styles and organize the learning environment accordingly to improve children's thinking skills [48]. Teachers are expected to raise students who possess thinking skills and can use these skills to solve problems and be creative. Raising students who can use thinking skills effectively is possible with teachers who can utilize these skills effectively [49]. Although there are studies examining the relationship between lateral thinking and critical thinking in the literature, there is no study examining the relationship between lateral thinking and preferred classroom management and teaching approaches. Yilmaz [44], in his study with pre-service primary education teachers, found that there was a moderate, positive, and significant relationship between lateral thinking tendency and critical thinking tendency level.

As a result, weak to moderate significant relationships were found between lateral thinking dispositions, classroom management approaches, and teaching approach preferences of teachers in Türkiye and Kosovo. The preference for classroom management approaches positively affects the preference for instructional approaches, and teachers' lateral thinking skills shape their preferences for classroom management and instructional strategies. The findings suggest that developing teachers' lateral thinking skills can help them adopt more creative and effective approaches in classroom management and teaching processes. In addition, it is understood that teachers should adapt their teaching methods accordingly while shaping different strategies in classroom management according to the needs of students. In this way, teachers can conduct a more creative and effective teaching process, and students can use their thinking skills more efficiently. In this context, providing teachers with theoretical and practical training on the development and application of lateral thinking skills can contribute to achieving the expected level of quality in education.

References

[1] B. Yıldırım, "Lateral thinking self-assessment sacale: Validity and reliability study," *International online Journal of Educational Science*, vol. 14, no. 2, pp. 535-548, 2022.

[2] E. Metlilo and B. Yildirim, *Predictive relationships between teachers' cultural values, cultural leadership perceptions and classroom management approaches*. Kosova-Türkiye Karşılaştırması, 2022.

[3] E. Tezci, "Adaptation of ATI-R scale to Turkish samples: Validity and reliability analyses," *International Education Studies*, vol. 10, no. 1, pp. 67-81, 2017.

[4] S. Tanilli, *Synthesis of the creative mind*. İstanbul: Adam Yayınları, 1998.

[5] F. Tos, *Psychology and genius in the light of science*. İstanbul: Kariyer Yayıncılık, 2007.

[6] A. Saban, *New theories and approaches to the learning and teaching process*. Ankara: Nobel Yayın Dağıtım, 2004.

[7] D. Kökdemir, "Decision making and problem solving under uncertainty ", Doctoral Thesis. Ankara: Ankara University, Institute of Social Sciences, 2003.

[8] A. Yüceliş, "The effect of cognitive flexibility level on student achievement and attitudes in web-based problem-based learning," Doctoral Thesis Ankara University, Institute of Educational Sciences, Ankara, 2003.

[9] R. Fisher, *Teaching v-children to think*. London: Nelson Thornes, 2005.

[10] E. De Bono, *Lateral thinking*. London: Ward Lock Educational, 1970.

[11] D. De Bono, *Lateral thinking: A textbook of creativity*. London: Penguin Books, 1990.

[12] W. Hu and P. Adey, "A scientific creativity test for secondary school students," *International Journal of Science Education*, vol. 24, no. 4, pp. 389-403, 2002.

[13] M. Moore, "Self-directed learning and distance education," *International Journal of E-Learning & Distance Education*, vol. 1, no. 1, pp. 7-24, 1986.

[14] C. Collins, "English language dictionary," 1994.

[15] M. M. Martin and C. M. Anderson, "The cognitive flexibility scale: Three validity studies," *Communication Reports*, vol. 11, no. 1, pp. 1-9, 1998. https://doi.org/10.1080/08934219809367680

[16] M. Henly, *Culture's management: A proactive approach*. USA: Pearson, 2010.

[17] İ. Erdoğan, *Change management in education*. Ankara: Pegem A Yayıncılık, 2002.

[18] G. Gay, *Culturally sensitive education theory, research and practice*. Ankara: Anı Yayıncılık, 2004.

[19] N. Phuntsog, "The magic of culturally responsive pedagogy: In search of the genie's lamp in multicultural education," *Teacher Education Quarterly*, pp. 97-111, 1999.

[20] H. Başar, *Classroom management*. Ankara: Anı Yayıncılık, 2004.

[21] W. Glasser, *The quality school: Managing students without coercion*. New York: Harper, 1992.

[22] C. M. Charles, *Building classroom discipline*. Boston: Pearson/Allyn and Bacon, 2005.

[23] J. Kounin, *Discipline and group management in classroom*. New York: Norton, 1977.

[24] E. Sipahioğlu, "Unwanted student behaviors in the classroom at the first level of primary education and solution suggestions: Narlıdere example," Unpublished Master's Thesis. Beykent University Institute of Social Sciences, Istanbul, 2008.

[25] E. Little, A. Hudson, and R. Wilks, "Conduct problems across home and school," *Behaviour Change,* vol. 17, no. 2, pp. 69-77, 2000. https://doi.org/10.1375/bech.17.2.69
[26] R. Wilks, "Classroom management in primary schools: A review of the literature," *Behaviour Change,* vol. 13, no. 1, pp. 20-32, 1996. https://doi.org/10.1017/s0813483900003922
[27] M. Herrera and E. Little, "Behaviour problems across home and kindergarten in an Australian sample," *Australian Journal of Educational & Developmental Psychology,* vol. 5, pp. 77-90, 2005.
[28] J. Olsen and T. Nielsen, *Holistic discipline: A total approach to classroom management*. Australia, Sydney:: Pearson Education, 2006.
[29] M. Calp, *Teaching Turkish as a special field of education*. Konya: Eğitim Kitabevi, 2005.
[30] D. Jacobsen, P. D. Eggen, and D. P. Kauchak, *Methods for teaching: A skills approach*. New York: Merill Publishing Company, 1993.
[31] N. Fidan, *Learning and teaching in school*. Ankara: Pegem Akademi, 2012.
[32] N. Senemoğlu, *Development learning and teaching from theory to practice*. Ankara: Gazi Kitabevi, 2001.
[33] Y. Akman and M. Erden, *Educational psychology: Development-learning-teaching*. Ankara: Arkadaş Yayınevi, 1997.
[34] M. Bilen, *Teaching from plan to implementation*. Ankara: Anı Yayıncılık, 2006.
[35] S. Acar and U. Oğurlu, *The relationship between convergent and divergent thinking with the success, xviii national educational sciences congress*. İzmir: Ege Üniversitesi, 2009.
[36] D. F. Halpern, *Critical thinking across the curriculum: A brief edition of thought and knowledge*. London: LEA Publishers, 1997.
[37] K. Yıldız and B. Yılmaz, "The relationship between critical thinking and lateral thinking tendencies of classroom teacher candidates," *Bolu Abant İzzet Baysal Üniversitesi Eğitim Fakültesi Dergisi,* vol. 20, no. 1, pp. 335–353, 2020.
[38] N. Semerci, "Pedagogical formation students' dispositions toward lateral thinking," *Bartın University Journal of Faculty of Education,* vol. 6, no. 1, pp. 336-345, 2017. https://doi.org/10.14686/buefad.293271
[39] R. Haynes and T. Lee, "Creativity and innovation in the classroom: The impact of teachers' personal characteristics," *Teaching and Teacher Education,* vol. 68, pp. 105-113, 2017.
[40] P. A. Facione, *Critical thinking: A statement of expert consensus for purposes of educational assessment and instruction*. The California Academic Press, 2011.
[41] E. T. Emmer and E. J. Sabornie, *Handbook of classroom management*. London: Routledge, 2015.
[42] J. Brophy, "Classroom management as socializing teachers and learners," *Theory Into Practice,* vol. 52, no. 2, pp. 1-10, 2013.
[43] L. W. Anderson and D. R. Krathwohl, *A taxonomy for learning, teaching, and assessing: A revision of Bloom's taxonomy of educational objectives: Complete edition*. Addison Wesley Longman, Inc., 2001.
[44] B. Yilmaz, "The relationship between critical thinking and lateral thinking tendencies of prospective classroom teachers," Unpublished Master's Thesis Abant Izzet Baysal University, 2017.
[45] Ç. Şahin-Taşkın and H. Esen-Aygün, "Thinking skills of prospective teachers: The relationship between lateral thinking and cognitive flexibility," *Yaşadıkça Eğitim,* vol. 36, no. 1, pp. 1-15, 2022.
[46] T. Onargan *et al.*, "A structuring model for the problem-based teaching (PBT) in mining engineering education," 1st ed. Eski Foça, İzmir: National Engineering Congress, 2004, pp. 20-21.
[47] Y. Karalı, "Critical thinking tendencies of education faculty students: The inonu university example," Unpublished Master's Thesis. Malatya: Inonu University Institute of Educational Sciences, 2012.
[48] R. Mahyuddin, Z. Lope Pihie, H. Elias, and M. M. Konting, "The incorporation of thinking skills in the school curriculum," *Kajian Malaysia,* vol. 22, no. 2, pp. 23-33, 2004.
[49] A. Lawrence and S. A. Xavier, "Lateral thinking of prospective teachers," *Online Submission,* vol. 1, no. 1, pp. 28-32, 2013.