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THE IMPLEMENTATION AND EFFECTIVENESS OF ACTIVE LEARNING STRATEGIES IN TURKISH CLASSROOMS: A STUDY IN NORTH MACEDONIA

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This study aims to examine the level of implementation of active learning strategies in Turkish classes in North Macedonia. The study used the relational screening method, one of the quantitative research models. The study's data were collected from teachers working in Turkish classes in North Macedonia. In this context, 127 teachers who carried out educational activities in the 2024-2025 academic year constitute the study group. The study group was formed using the convenience sampling method, a non-random sampling method. In the study's quantitative data collection, the "Scale of the implementation of active learning activities in Turkish classes in North Macedonia" developed as a seven-point Likert was used. Parametric statistical techniques were used in the analysis of quantitative data. As a result of the analyses made on the quantitative data of the study, it was determined that teachers use active learning techniques at a high level in their lessons. However, it was determined that active learning applications were used less in the conclusion sections of the course. No significant difference was found between the teachers' gender, age, professional seniority, branch, education level, their status of receiving active learning training, on the one hand, and their level of implementation of active learning strategies, on the other. However, it is recommended that awareness and in-service training programs be developed to make teachers' active learning practices more effective. It is considered important to prepare guide materials that will increase the integration of active learning, especially in the conclusion sections of the course.

Keywords: Active learning, application, North Macedonia, Turkish classes.

СПРОВЕДУВАЊЕ НА СТРАТЕГИИТЕ ЗА АКТИВНО УЧЕЊЕ ВО НАСТАВАТА ПО ТУРСКИ ЈАЗИК ВО СЕВЕРНА МАКЕДОНИЈА

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Целта на ова истражување е да се испита нивото на спроведување на стратегиите за активно учење во наставата по турски јазик во Северна Македонија. Во истражувањето се користи методот на релационен скрининг, еден од квантитативните истражувачки модели. Проучуваната група се формира со практични методи за составување примерок, коишто не се случајно избрани. При собирањето на квантитативни податоци за истражувањето, се користеше скала на оценување од седум нивоа, „Скала за спроведување на активностите за активно учење во наставата по турски јазик во Северна Македонија“. За анализа на квантитативните податоци се користеа параметрички статистички техники. Врз основа на спроведената анализа на квантитативните податоци, се утврди дека, во наставата, наставниците користат техники за активно учење на значително ниво. Сепак, се забележа дека активното учење помалку се применува во завршните етапи од наставата. Не се утврдија значајни разлики меѓу наставниците врз основа на полот, возраста, стажот, областа, нивото на образование, статусот на слушање на обуката за активно учење и на нивото на спроведување на стратегиите за активно учење. Меѓутоа, се препорачува да се изготват програми за подигнување на свеста и обука на работното место со цел наставните практики за активно учење да бидат поефективни.

Клучни зборови: активно учење, стратегии, примена, Северна Македонија, настава по турски јазик.

1 Introduction

In today's rapidly evolving world, education systems face increasing demands to equip individuals with higher-order thinking skills, problem-solving abilities, and critical perspectives. These demands have led to a shift in teaching paradigms, favoring student-centered approaches over traditional teacher-centered methods. Active learning has emerged as a transformative strategy to meet these demands by promoting student engagement, critical thinking, and collaborative learning. Defined as any instructional method that actively involves students in the learning process, active learning fosters participation, interaction, and practical application of knowledge (Prince 2004). Unlike traditional methods, which often require students to passively absorb information, active learning strategies prioritize activities such as group discussions, problem-solving tasks, and peer teaching. These methods aim to enhance student motivation, improve knowledge retention, and develop higher-order thinking skills (Freeman et al. 2014).

Active learning, in its simplest sense, is defined as any method that involves students in the learning process. Active learning is a broad term in the literature that describes both general pedagogy and specific teaching and learning strategies in the classroom (Huggett and Jeffries 2015: 9). The emergence of active learning is based on two main reasons. The first is to shift the focus from the instructor to the learner during the lesson, and the second is to encourage higher-level cognitive skills development by providing active interaction during the lesson. Active learning is a learning process in which the responsibility of the learning process lies with the student; the student is forced to use his/her mental abilities with complex instructional tasks, and is provided with the opportunity to make decisions and self-regulate regarding various aspects of the learning process (Acıkgoz 2009: 7).

From a theoretical perspective, active learning is closely associated with constructivist learning theory, which emphasizes that learners actively construct knowledge through interaction with their environment rather than passively receiving information (Piaget 1972; Vygotsky 1978). Within this framework, learning occurs through active engagement, dialogue, and problem-solving processes. Constructivist approaches suggest that meaningful learning takes place when students connect new knowledge with prior experiences and actively participate in the learning process. Therefore, instructional environments that encourage exploration, collaboration, and reflection are considered essential for effective learning.

In addition to the development of students' knowledge level, active learning also affects the development of metacognitive skills by internalizing information. Demirel (2009) defined active learning as the learner's reading, writing, discussing, speaking, establishing connections with their past life, being able to use the information in daily life, being able to solve problems, and actively participating in the process (229). Active learning requires students to think about the concepts they learn, apply them, check their understanding, explain their ideas, and interact in ways that will result in a better understanding of the class content and more developed study skills. Active learning is closely related to student-centered learning paradigms, which position students as active participants in their own learning processes. In student-centered learning environments, teachers act as facilitators who guide students' inquiry, encourage collaboration, and create opportunities for meaningful engagement with course content. Such environments are known to promote cognitive engagement, which refers to the degree to which students invest effort in understanding complex ideas and mastering difficult skills (Fredricks, Blumenfeld and Paris 2004).

Active learning strategies are diverse instructional methods designed to involve students actively in the learning process. These methods vary widely but share a common goal of

encouraging students to "learn by doing." Key active learning strategies include think-pair-share, group discussions, case studies, role-playing, peer teaching, problem-based learning, etc. Active learning strategies serve several critical educational purposes such as enhancing student engagement, developing higher-order thinking skills, fostering collaboration, encouraging self-regulation, and improving knowledge retention. For example, strategies such as think-pair-share encourage students to articulate their thoughts and reflect on their understanding, while problem-based learning promotes analytical thinking and collaborative problem solving. Similarly, peer teaching and group discussions allow students to construct knowledge through dialogue and interaction with their peers. These practices illustrate how active learning shifts the focus of classroom instruction from passive information transmission to active knowledge construction. The implementation of active learning strategies requires careful planning, clear instructions, and a supportive classroom environment. Active learning strategies represent a transformative approach to teaching, emphasizing student engagement and participation. Active learning strategies are diverse instructional methods designed to involve students actively in the learning process.

Despite the growing recognition of active learning as an effective pedagogical approach, the extent to which these strategies are implemented in different educational contexts may vary depending on institutional conditions, teacher beliefs, and professional training opportunities. Examining how active learning is implemented in specific linguistic and cultural contexts can provide valuable insights for improving teaching practices. In particular, the successful implementation of active learning strategies largely depends on teachers' pedagogical beliefs, instructional practices, and professional experiences. Teachers play a central role in transforming theoretical pedagogical approaches into practical classroom applications and determining how these strategies are integrated into classroom practices. Previous studies indicate that although teachers often express positive attitudes toward active learning approaches, the actual classroom implementation may remain limited due to factors such as institutional constraints, limited professional development opportunities, or reliance on traditional teaching methods (Michael 2006; Bonwell and Eison 1991). Therefore, examining teachers' awareness and classroom implementation of active learning strategies provides valuable insights into how these pedagogical approaches are translated into practice. Although active learning has been widely examined in various educational contexts, research focusing on the implementation of active learning strategies in Turkish language classrooms, particularly within the context of Turkish education in North Macedonia, remains limited. Therefore, this study aims to examine teachers' awareness and implementation of active learning strategies in Turkish classrooms in North Macedonia.

1.1 Literature Review

When examining the literature on the implementation of active learning strategies that engage students in the learning process, it becomes clear that most studies focus primarily on the concept of active learning strategies themselves. Early discussions of active learning emphasized the importance of engaging students directly in the learning process rather than relying solely on passive lecture-based instruction (Bonwell and Eison 1991). Similarly, Prince (2004) defines active learning as instructional methods that involve students in meaningful learning activities and require them to think about what they are doing. Besides, Walker (2003) provides a brief introduction to the definition and disposition to think critically, along with active learning strategies to promote critical thinking. In her study, she emphasizes that active

learning strategies, including case studies, discussion methods, questioning techniques, and debates, are effective in fostering critical thinking skills by engaging students in reflective and purposeful learning processes. Numerous empirical studies have demonstrated that active learning significantly improves student achievement and engagement compared to traditional lecture-based instruction. Freeman et al. (2014), through a large-scale meta-analysis conducted in STEM disciplines, concluded that active learning strategies significantly enhance student learning outcomes and reduce failure rates in higher education courses.

On the other hand, Savage et al. (2025) demonstrated that incorporating active learning strategies, such as collaborative activities and guided notes, within a blended instructional model significantly enhanced students' engagement, confidence, and success in precalculus courses. In another study, Krstik (2020) examined the organization of students' learning processes in primary education and emphasized the importance of learner-centered instructional practices that encourage student participation and active engagement in classroom activities.

Overall, previous research consistently indicates that active learning strategies contribute positively to student engagement, academic achievement, and the development of higher-order thinking skills across different educational contexts. In particular, studies across various disciplines have demonstrated that instructional approaches encouraging student participation, collaboration, and problem-solving tend to produce more effective learning outcomes than traditional lecture-based teaching methods. However, the majority of these studies have focused primarily on STEM education or higher education settings. Research examining the implementation of active learning strategies in language classrooms remains relatively limited. This is particularly important because language learning inherently requires interaction, communication, and meaningful participation in learning activities. Therefore, instructional strategies that encourage discussion, collaboration, and problem-solving play a crucial role in supporting language acquisition and communicative competence.

Although active learning has been widely examined in various educational contexts, studies focusing on the implementation of these strategies in Turkish language classrooms are relatively limited. Moreover, research addressing the specific context of Turkish education in North Macedonia remains scarce. Considering the sociolinguistic and educational characteristics of Turkish education in North Macedonia, investigating the implementation of active learning strategies in these classrooms is important for understanding current teaching practices and identifying areas for pedagogical improvement.

This study seeks to address this gap by investigating teachers' awareness and implementation of active learning strategies in these classrooms. By examining the factors influencing their use and identifying best practices, this research aims to contribute to the broader discourse on active learning and inform evidence-based teaching practices in Turkish education. In this context, the study's main purpose is to examine teachers' awareness in Turkish classes in North Macedonia regarding active learning and their implementation of active learning. Accordingly, the study seeks to answer the following research questions:

1. What is the level of implementation of active learning strategies among teachers working in Turkish classrooms in North Macedonia?

2. Do teachers' levels of implementing active learning strategies differ according to gender, age, professional seniority, branch, and training on active learning?

2 Method

This study employed a quantitative research design to examine teachers' awareness and implementation of active learning strategies in Turkish classrooms in North Macedonia. A relational survey model was used to explore possible relationships between the implementation of active learning strategies and selected demographic variables such as gender, age, professional seniority, teaching branch, and training in active learning. Determining the prominent topics in a field means trying to find the general tendency of the answers from the people in the study and how this tendency changes from person to person (Creswell 2012). In the current study, the relational screening model, one of the quantitative research models, was used. Relational screening studies are "research models aimed at determining the existence of joint change between two or more variables" (Büyüköztürk 2013).

2.1 Participants

According to the most recent available statistics, there are approximately 518 Turkish teachers working in Turkish-language classrooms in North Macedonia (Ibrahim and Karaberzat 2022: 21). The sample of this study consists of 127 teachers, which represents a considerable proportion of the target population. Participants were selected using a convenience sampling method. This approach was chosen due to accessibility considerations and the relatively limited size of the population of Turkish teachers working in North Macedonia. Considering that the sample represents nearly one-quarter of the total population of Turkish teachers in the country, the findings provide meaningful insights into the implementation of active learning strategies in this context. Descriptive statistics regarding the demographic information of the teachers who participated in the research are given in Table 1.

Table 1. Descriptive Statistics on Teachers' Demographic Information

Demographic Information		N	%
Gender	Female	84	66.1
	Male	43	33.9
Age	18-25	10	7.9
	26-35	56	44.1
	36-45	39	30.7
	46-55	14	11.0
	56 and above	8	6.3
Seniority	Less than 1 year	6	4.7
	2-5 years	36	28.3
	6-10 years	26	20.5
	11-15 years	29	22.8
	16-20 years	13	10.2
	20 years or more	17	13.4

Branch	Classroom Teacher	65	51.2
	Turkish LL	13	10.2
	Mathematics	6	4.7
	Natural Sciences	4	3.1
	Social Sciences	16	12.6
	Other	23	18.1
Grade Level	Primary School First Stage	73	57.5
	Primary School Second Stage	54	42.5
Knowledge About Active Learning Strategies	Yes	115	90.6
	No	12	9.4
Training in Active Learning Strategies	Yes	70	55.1
	No	57	44.9

Table 1 presents the demographic characteristics of the participating teachers. The results indicate that 66.1% of the participants are female, while 33.9% are male. In terms of age distribution, most participants fall within the 26-35 age group. Regarding professional seniority, the largest proportion of teachers have between two and five years of teaching experience. When the distribution of teachers according to their teaching branch is examined, it is observed that 51.2% of the participants are classroom teachers. In addition, the majority of the teachers reported that they were familiar with active learning strategies, and 55.1% indicated that they had received training related to active learning strategies.

2.2 Data Collection Tool

A data collection instrument was developed to determine the implementation level of active learning strategies in Turkish classrooms in North Macedonia. The instrument consisted of two sections. The first section included eight items designed to collect demographic information about the participating teachers. The second section consisted of twenty-seven items related to possible active learning activities that could be implemented in the introduction, development, and conclusion stages of classroom instruction.

To ensure the content validity of the instrument, the draft questionnaire was reviewed by five field experts specializing in educational sciences, language teaching and Turkish language teaching. Based on the feedback received from these experts, revisions were made to improve the clarity and relevance of the items. As a result of this evaluation process, two items were removed from the instrument and the final version of the scale consisted of twenty-five items.

The population of the study consists of Turkish teachers working in public schools in North Macedonia. However, due to the relatively limited number of teachers in the target population, a pilot study was not conducted prior to the main data collection process. Conducting a pilot test could have reduced the number of teachers available for participation in the main study. The data were collected through face-to-face meetings with teachers working in Turkish-language classrooms in North Macedonia between October and December during the fall semester of the 2024-2025 academic year. Before the data collection process, the purpose of the study was explained to the participants, and only teachers who voluntarily agreed to participate were included in the study. All participants were informed that their responses would be used solely

for academic research purposes. Therefore, validity and reliability analyses of the instrument were conducted after the data collection process.

Table 2. Reliability Values of the Active Learning Activities Implementation Scale

Measurement Tool and Sub-Factors	N	Cronbach's alfa
Introduction	6	0.945
Development	12	0.969
Conclusion	7	0.929
Active Learning	25	0.978

Table 2 presents the Cronbach's alpha coefficients calculated to assess the internal consistency reliability of the data collection instrument. The overall reliability coefficient of the scale was found to be 0.978, indicating a high level of internal consistency among the items. According to Büyüköztürk (2013), states that reliability values of 0.70 and above are generally considered acceptable for measurement instruments used in educational and psychological research. The high reliability coefficient indicates a strong internal consistency among the scale items, suggesting that the instrument reliably measures teachers' implementation of active learning strategies. Accordingly, it was determined that the data collection tool and its sub-factors used within the scope of the research had acceptable reliability values for this research.

2.3 Data Analysis

In the data analysis, descriptive statistics (frequencies and percentages), independent samples t-tests, and one-way analysis of variance (ANOVA) were conducted. Before conducting the analyses, the normality of the data was examined. Although the results of the Kolmogorov-Smirnov and Shapiro-Wilk tests were statistically significant ($p < .05$), indicating deviations from normal distribution, parametric tests were used considering the sample size of the study ($N = 127$), as such tests are generally regarded as robust to violations of normality in large samples. In addition, Levene's test results indicated that the assumption of homogeneity of variances was met ($p > .05$)

3 Findings

This study aims to determine the level of use of active learning activities in classroom practices by Turkish teachers working in Turkish classrooms in North Macedonia. The findings obtained regarding the problem questions determined within the scope of the study are presented in detail below.

3.1 Findings Regarding the Use of Active Learning Activities

The data obtained from the scale used to measure the level of application of active learning activities in Turkish classrooms in North Macedonia were analyzed with descriptive statistics and the results are shown in Table 3.

Table 3. Descriptive Statistics of Sub-Factors of Active Learning Activities Scale

Sub-Factors	N	Min.	Max.	Mean	Std.
Introduction	127	6	42	32.08 (5.34)	8.93
Development	127	14	83	64.88 (5.40)	15.57
Conclusion	127	7	49	34.61 (4.94)	9.05
Active Learning Overall	127	27	173	131.57 (5.26)	31.71

According to Table 3, the minimum score for the overall scale, which consists of 25 items and three sub-factors and is scored as a seven-point Likert, is 27, the maximum score is 173, and the average is 131. In the average column, the average value is given in parentheses by dividing it by the number of items, and the levels of application of active learning activities are interpreted using these values. Based on this, the average use of general active learning strategies in lessons was determined to be 5.26. Based on these results, it was determined that teachers in Turkish classrooms in North Macedonia reported implementing a high level of active learning strategies in their lessons. When the sub-factor dimensions of the scale were examined, it was found that active learning strategies were accorded less in the lesson conclusions than in the introduction and development sections. On the other hand, difference analyses were also conducted to investigate if personal variables affect the levels of applying active learning strategies of Turkish classrooms in North Macedonia, and answers were also sought regarding whether the independent variables of gender, age, seniority, branch, level, and active learning training status have a significant effect on teachers' active learning implementation status. These findings indicate that teachers report a relatively high level of implementation of active learning strategies in their classroom practices. However, it should be noted that these results are based on self-reported data, which may be subject to response bias. Therefore, the reported high level of implementation should be interpreted with caution. Additionally, while the frequency of implementation appears to be high, this does not necessarily reflect the quality or effectiveness of the active learning practices used in the classroom.

3.2 Findings Regarding Teachers' Use of Active Learning Activities According to Gender

Firstly, an independent samples t-test was conducted to determine whether gender affected the levels of application of active learning strategies, and the results are presented in Table 4.

Table 4. Independent Samples T-Test Results Regarding Gender

Variable	Group	N	Mean	t	df	p
Active Learning	Female	84	130,51	-0.52	125	0.602
	Male	43	133,63			

According to the independent samples t-test results presented in Table 4, although the mean level of implementation of active learning activities of female teachers (130.51) is slightly lower than that of male teachers (133.63), this difference is not statistically significant ($t(125) = -0.52$, $p > 0.05$). The effect size was very small (Cohen's $d = -0.10$), indicating that the difference

between male and female teachers is negligible in practical terms. These findings suggest that gender does not appear to be a determining factor in teachers' implementation of active learning strategies and that implementation levels are relatively consistent across teachers.

3.3 Findings Regarding Teachers' Use of Active Learning Activities According to Age

A one-way analysis of variance was conducted to determine the differentiation status of active learning strategies according to teachers' ages after the effect of the gender variable, and the results are presented in Table 5.

Table 5. Anova Results Regarding Age

Variable	Group	N	Mean	Sd	F	p	Difference
Active Learning	18-25	10	139.20	33.433	0.676	0.610	none
	26-35	56	126.71	35.429			
	36-45	39	133.44	26.779			
	46-55	14	138.00	27.420			
	56<	8	135.63	33.458			

Table 5 summarizes the results of the ANOVA test conducted to compare the levels of implementation of active learning activities among teachers in different age groups. According to the ANOVA results presented in Table 5, there is no statistically significant difference in the levels of implementation of active learning activities among teachers according to age groups ($F = 0.676$, $p > 0.05$). The observed between-group differences were assessed as random. This result indicates that age does not appear to be a determining factor in teachers' implementation of active learning strategies.

3.4 Findings Regarding Teachers' Use of Active Learning Activities According to the Class Level Taught

To determine the differences in the levels of active learning activities implementation of teachers in Turkish classrooms in North Macedonia according to the classes they teach, an independent samples t-test was conducted, and the results are given in Table 6.

Table 6. Independent Samples T-Test Results Regarding the Class Level Taught

Variable	Group	N	Mean	t	df	p
Active Learning	Primary School First Stage	73	131.15	-0.171	125	0.864
	Primary School Second Stage	54	132.13			

According to the independent samples t-test results presented in Table 6, although the average level of implementation of active learning activities of teachers teaching in the first grade of primary school (131.15) is slightly lower than that of teachers teaching in the second grade (132.13), this difference is not statistically significant ($t(125) = -0.171$, $p > 0.05$). This result shows that there is no significant effect on the level of implementation of active learning activities according to the grade level teachers teach.

3.5 Findings Regarding Teachers' Use of Active Learning Activities According to Professional Seniority

After examining the differences in Turkish teachers' levels of application active learning activities according to gender, age, and grade level, a one-way variance analysis was conducted to determine the differences according to professional seniority, and the results are given in Table 7.

Table 7. Anova Results Regarding Professional Seniority

Variable	Group	N	Mean	sd	F	p	Difference
Active Learning	Less than 1 year	6	152.67	11.57	0.896	0.489	None
	1-5 years	36	125.97	39.59			
	5-10 years	26	130.27	30.08			
	11-15 years	29	132.34	25.58			
	16-20 years	13	130.15	35.81			
	20 years and above	17	137.57	25.35			

According to the ANOVA test regarding the comparison of the Turkish teachers' levels of implementation of active learning activities according to their professional seniority, the teachers' levels of implementation of active learning activities do not show a significant difference according to their professional experience ($F = 0.896$, $p > 0.05$). The differences observed between the groups appear to be random. Although the highest average score is seen in teachers with less than 1 year of experience, this difference is not statistically significant. This finding suggests that professional experience alone may not significantly influence the use of active learning strategies in classroom practices.

3.6 Findings Regarding Teachers' Use of Active Learning Activities According to Branch

A one-way analysis of variance was conducted to determine the differences in the levels of application of active learning activities of teachers in Turkish classrooms in North Macedonia according to their branches and the results are given in Table 8.

Table 8. Anova Results Regarding the Comparison of Teachers' Application Levels of Active Learning Activities According to Branch

Variable	Branch	N	Mean	sd	F	p	Difference
Active Learning	Classroom Teacher	65	129.98	35.38	0.321	0.900	None
	Turkish Language	13	140.46	32.55			
	Mathematics	6	128.67	39.55			
	Natural Sciences	4	140.00	5.47			
	Social Sciences	16	128.81	24.48			
	Other	23	132.22	26.37			

According to the ANOVA results presented in Table 8, there is no significant difference in teachers' implementation levels of active learning activities according to their branches ($F = 0.321$, $p > 0.05$). When the average scores according to branches are examined, it is seen that Turkish Language teachers have the highest average (140.46) and mathematics teachers have

the lowest average (128.67). However, these differences are not statistically significant. This result indicates that active learning practices are not limited to specific subject areas and may be adopted across different teaching disciplines.

3.7 Findings Regarding Teachers' Use of Active Learning Activities According to Their Familiarity with the Concept of Active Learning

After examining the differences in teachers' branches, an independent samples t-test was conducted to determine the differences in terms of whether they received active learning training, and the results are given in Table 9.

Table 9. Independent Samples T-Test Results Regarding Familiarity with the Concept of Active Learning

Variable	Having Knowledge About the Concept of Active Learning	N	Mean	t	df	P
Active Learning	Yes	115	131.46	-0.116	125	0.908
	No	12	132.58			

According to the independent samples t-test results presented in Table 9, there is no significant difference between teachers knowledge of the concept of active learning and their level of application of active learning strategies ($t(125) = -0.116$, $p > 0.05$). The average score of teachers who are familiar with the concept is 131.46, while the average score of those who are not is 132.58. This finding is particularly noteworthy as it suggests that formal training alone may not be sufficient to ensure the effective implementation of active learning strategies in classroom practices.

3.8 Findings Regarding Teachers' Use of Active Learning Activities According to Their Active Learning Education Status

After examining the differences in the teachers' levels of implementation of active learning activities according to their previous training on this subject, an independent samples t-test was conducted to determine the differences according to their active learning education status, and the results are given in Table 10.

Table 10. Independent Samples T-Test Results Regarding Active Learning Education Status

Variable	Group	N	Mean	t	df	p
Active Learning	Yes	70	135.26	1.460	125	0.147
	No	57	127.04			

According to the independent samples t-test results presented in Table 10, there is no significant difference between the status of teachers receiving active learning training and their level of implementation of active learning activities ($t(125) = 1.460$, $p > 0.05$). However, the mean score of teachers who received training (135.26) is higher than that of those who did not (127.04). The effect size was small (Cohen's $d = 0.26$), indicating a modest practical difference between the groups. These findings suggest that while training may contribute to higher levels

of implementation, its impact is limited and not strong enough to produce statistically significant differences.

Discussion

The present study aimed to examine the level of implementation of active learning strategies in Turkish classrooms in North Macedonia and to explore whether this implementation differs according to various demographic variables. The results revealed that teachers reported a relatively high level of application of active learning strategies in their classroom practices. This outcome is also supported by the literature emphasizing that attention and motivation strategies used at the beginning of lessons contribute significantly to student achievement and meaningful learning processes (Yanpar 1994). Similarly, previous research suggests that active learning has become increasingly recognized as an effective pedagogical approach that promotes student engagement and higher-order thinking skills (Prince 2004; Freeman et al. 2014). In addition, active learning environments are known to foster deeper cognitive engagement and meaningful learning experiences by encouraging students to take an active role in the learning process (Stevkovska et al. 2025). The study primarily focuses on teachers' reported implementation. Therefore, effectiveness is interpreted in relation to perceived practices rather than direct student outcomes.

However, it is important to interpret this finding with caution. The data in this study are based on teachers' self-reports, which may be influenced by response bias or socially desirable responses. Previous studies have highlighted that teachers' perceptions of their instructional practices may not always fully correspond to actual classroom behaviors (Desimone and Garet, 2015). Therefore, while the results indicate a high level of implementation, they do not necessarily reflect the quality or effectiveness of active learning practices. This distinction is particularly important, as effective implementation requires not only the use of active learning techniques but also their pedagogical appropriateness and alignment with learning objectives (Michael 2006).

Another important finding of the study is that no statistically significant differences were found in the levels of implementation of active learning strategies across demographic variables such as gender, age, professional seniority, teaching branch, and grade level. This result suggests that active learning may have been adopted as a general instructional approach rather than being limited to specific teacher characteristics. Similar findings have been reported in previous studies, indicating that teachers' demographic characteristics are not always strong predictors of their instructional practices (Nguyen et al. 2021). Instead, broader contextual factors such as school culture, institutional support, and access to instructional resources may play a more influential role in shaping teaching practices.

One of the most noteworthy findings of the study concerns the role of training in active learning. Although teachers who received training reported higher levels of implementation compared to those who did not, this difference was not statistically significant, and the effect size was small. This finding suggests that formal training alone may not be sufficient to ensure the effective integration of active learning strategies into classroom practices. This result is consistent with research emphasizing that professional development programs need to be continuous, practice-oriented, and supported by follow-up activities in order to produce meaningful changes in teaching practices (Desimone 2009).

In addition, the finding that active learning strategies are used less frequently in the conclusion phase of lessons is particularly significant. This may indicate that teachers tend to

focus more on engagement and interaction during the introduction and development stages, while neglecting opportunities for reflection, consolidation, and assessment at the end of the lesson. The development phase is particularly critical, as it is the stage in which learning objectives are directly presented and students actively engage with instructional stimuli to acquire targeted skills and knowledge (Oktar and Bulduk, 1999). However, the conclusion phase plays a critical role in reinforcing learning, promoting metacognitive awareness, and enabling students to connect new knowledge with prior understanding (Gagné et al. 1992). Therefore, insufficient use of active learning strategies in this phase may limit the overall effectiveness of instruction. This finding also aligns with the literature emphasizing that the effectiveness of active learning depends not only on its use but also on how it is structured and implemented within the learning environment (Stevkovska et al. 2025).

Overall, the findings of this study indicate that although active learning strategies are widely implemented in Turkish classrooms in North Macedonia, their use is not always pedagogically balanced or systematically structured across different stages of the lesson. This study contributes to the literature by providing empirical evidence from a relatively under-researched educational context and by highlighting the gap between the frequency and the effective implementation of active learning strategies. These results emphasize the need for more comprehensive and practice-oriented professional development programs that support teachers not only in adopting active learning strategies but also in implementing them effectively throughout all phases of instruction. Future research could benefit from mixed-method approaches, including classroom observations and qualitative data, to gain deeper insights into the quality and effectiveness of active learning practices.

Conclusion

This study examined the implementation of active learning strategies in Turkish classrooms in North Macedonia and explored whether these practices differ according to various demographic variables. The findings indicate that teachers report a relatively high level of implementation of active learning strategies. However, this implementation is not always evenly distributed across different stages of the lesson, particularly not in the conclusion phase. In addition, the results show that the use of active learning strategies does not significantly differ according to demographic characteristics such as gender, age, professional seniority, branch, grade level, or training status. This suggests that active learning has been adopted as a general instructional approach rather than being associated with specific teacher characteristics.

The study contributes to the literature by providing empirical evidence from a relatively under-researched context and by highlighting the gap between the reported use and the effective and balanced implementation of active learning strategies. These findings emphasize that increasing the frequency of active learning practices alone is not sufficient. Rather, attention should be given to how these strategies are systematically integrated into all phases of instruction.

Based on the findings, it is recommended that teacher training programs focus not only on introducing active learning strategies but also on supporting their effective and balanced application throughout the lesson. In addition, developing materials with practical guidelines and providing continuous professional development opportunities may help teachers enhance the quality of their instructional practices.

Despite its contributions, this study has several limitations that should be considered when interpreting the findings. First, the study is based on self-reported data, which may not fully reflect actual classroom practices. Second, the use of a convenience sampling method and the

focus on a specific educational context may limit the generalizability of the results. Future studies could address these limitations by incorporating classroom observations, longitudinal designs, and qualitative data to provide a more comprehensive understanding of how active learning strategies are implemented in practice. In terms of implications, the findings highlight the need for more structured and practice-oriented professional development programs that support teachers in effectively integrating active learning strategies into all phases of the lesson. Additionally, developing context-specific instructional guidelines and supporting teachers with practical resources may enhance the quality and sustainability of active learning practices in Turkish language education.

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Appendix: Data Collection Tool

	Questions	Strongly Disagree	Disagree	Partly Disagree	Undecided	Partly Agree	Agree	Strongly Agree
1	At the beginning of the topic, I ask students to explain/write what they know about the topic and their opinions about it.							
2	To make students understand the subject, I tell jokes, memories, events or watch movies.							
3	I would like the students to answer preparation questions related to this topic.							
4	I begin the lesson by posing intriguing questions and encouraging students to respond.							
5	I ask students to guess the topic by giving them clues.							
6	At the beginning of the lesson, I play short games to prepare the students for the lesson.							
7	In class, I encourage discussion by asking open-ended questions and inviting students to share their perspectives.							
8	During a certain portion of the lesson, I work in small groups to guide students in solving problems or completing projects.							
9	I guide students to visualize what they have learned.							
10	I guide students to make connections between what they learn and real-life situations.							
11	I guide students to freely share their ideas about a particular topic and discuss these ideas in the classroom environment.							

12	I allow students to take on different roles about a certain topic or situation and explore the topic in depth by playing these roles.							
13	I have students explain the topic to their classmates.							
14	I provide students with complex problems and guide them in collaborating, researching, and producing solutions to solve them.							
15	I guide students to work on long-term projects and to put into practice what they have learned through these projects.							
16	I have students learn the material at home in advance and apply or discuss this information during class.							
17	I guide students to create a thought map to enhance their understanding of the subject.							
18	I guide students to examine real-world problems and develop solutions.							
19	I ask students to summarize the topic using three words.							
20	I ask students to create a slogan that captures the essence of the topic we have covered.							
21	I ask them to write a story or poem explaining the topic covered.							
22	At the end of the lesson, I ask students to create concept maps related to the topic covered.							
23	I ask the students to prepare a newspaper on the topic covered.							
24	I would like them to prepare a poster, TV commercial, news article, etc. on the topic covered.							
25	I guide students to summarize the topic covered with activities such as turn and discuss, think-pair-share, and 5W1H.							