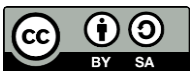
IDEAS

Journal on Language Teaching and Learning, Linguistics and Literature

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

Volume 13, Number 2, December 2025
pp. 7351 - 7363



Issued by English study program of IAIN Palopo

The Effectiveness of Jigsaw and STAD Techniques in Teaching Reading Comprehension to The Ninth Grade Students with Different Levels of Motivation at a State Junior High School in Semarang

Prima Kismaning Diah[1], Sri Wuli Fitriati[2]
[1]Program Master Pendidikan Bahasa Inggris, UNNES Universitas Negeri Semarang
[1]SMP Negeri 26 Semarang
[2]Program Master Pendidikan Bahasa Inggris, UNNES Universitas Negeri Semarang
Corresponding E-Mail: Primadiah73@students.unnes.ac.id

Received: 2025-11-05 Accepted: 2025-12-19
DOI: 10.24256/ideas. v13i2.8372

Abstract

This study investigated the effectiveness of the Jigsaw and STAD (Student Teams Achievement Division) techniques in teaching reading comprehension to ninth-grade students with different levels of motivation at a state junior high school in Semarang during the 2025/2026 academic year. Employing an experimental research design with two experimental groups and a 2 × 2 factorial structure, the study involved 66 students divided into two experimental groups: one taught using the Jigsaw technique and the other using the STAD technique. Data were collected through a motivation questionnaire, pre-tests, post-tests, and triangulated with students' perceptions and the teacher's reflection. The findings revealed that both Jigsaw and STAD significantly improved students' reading comprehension. Students with high motivation achieved higher post-test scores than those with low motivation in both techniques, indicating that motivation plays a crucial role in learning outcomes. However, the Two-Way ANOVA showed no significant interaction between teaching technique and motivation level ($p = 0.777 > 0.05$), suggesting that the effectiveness of both techniques was consistent across motivation levels. Students and the teacher perceived both techniques as engaging, collaborative, and beneficial in fostering understanding, teamwork, and accountability. In conclusion, the Jigsaw and STAD techniques are effective, inclusive, and adaptable cooperative learning models that enhance students' reading comprehension across different motivation levels while simultaneously improving their motivation, participation, and learning experience. Based on the significance of these findings, it is recommended that English teachers and curriculum developers integrate

cooperative learning models such as Jigsaw and STAD more systematically into reading instruction to optimize learning outcomes across diverse motivation levels.
Keywords: *Jigsaw, STAD, reading comprehension, high motivation, low motivation*

Introduction

Reading has become a vital skill for students aiming to succeed in all aspects of their educational journey in the modern era, according to Par (2020). Through reading, students acquire a wealth of important information. Essentially, the more they engage with texts, the greater their knowledge becomes. The purpose of reading is to help students understand and interpret written material. Moreover, Banditvilai (2020) states that the objective of reading is to achieve comprehension. Reading comprehension refers to an individual's ability to grasp the deeper meaning of the text they have read. Nouwens et al. (2021) state that reading comprehension refers to an individual's capacity to derive meaning from written material.

In fact, there are some challenges found in English language teaching at a state junior high school in Semarang, and some of them are about reading skills. First, the students at this school show a lack of motivation to engage in English learning activities, which results in low participation in joining some events or English competitions which are held by the Education Department of Semarang City or other institutions. Second, based on the results of formative and summative assessments, the data show that more than 50% of the students have not met the criteria to achieve learning objectives in reading skills, which indicate the weaknesses of their reading abilities.

Third, the result of literacy outcomes stated in Education Report (*Rapor Pendidikan*) 2024 of a state junior high school in Semarang decreased, which implied that students were struggling to meet expected literacy standards. "*Rapor Pendidikan*" is a report released annually by the Ministry of Education (Kemendikbud) every March. Fourth, based on the result of an interview done by the teacher, some students admitted that they had difficulties in understanding the texts they read because they did not understand the meanings of the words. Fifth, the current teaching approach used, which was teacher-centered, should be considered more since it did not increase students' engagement.

On the other hand, in the 2025 Revised Edition of the Learning and Assessment Guidelines for Early Childhood Education, Elementary, and Secondary Education by the National Agency for Standards, Curriculum, and Assessment of the Ministry of Education and Culture of the Republic of Indonesia, it is stated that the implementation of learning is a teaching and learning activity that is conducted in an interactive, inspiring, enjoyable, and challenging manner, motivating students to participate actively, while also providing sufficient space for initiative, creativity, and independence in accordance with the students' talents, interests, and physical as well

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

as psychological development. Thus, in this case, the teacher professionalism is required. Teacher professionalism affects the teaching and learning process, according to Derakhshan et al. (2020). In short, teachers should be more professional and creative to use various teaching strategies to enhance the reading outcome.

Furthermore, in *Permendikbudristek* number 13 (2025), it is stated in part of philosophical foundation that according to Az-Zarmuji, a systematic learning strategy emphasizes inquiry and collaboration, enabling students to actively construct understanding through exploration, discussion, and reflection rather than passively receiving information. Based on that philosophical foundation, teachers have to facilitate students to develop students' skills in exploring materials further, discussing them in groups or teams, and then reflecting their activities during the learning process.

Moreover, in February 2025, the Ministry of Primary and Secondary Education of the Republic of Indonesia, has released the Academic Manuscript on Deep Learning Towards Quality Education for All, which stated that mindful, meaningful, and joyful learning aligns with the creation of a learning environment that is (a) interactive, (b) inspiring, (c) enjoyable, (d) challenging, (e) motivating students to participate actively, and (f) providing enough space for initiative, creativity, and independence in accordance with the talents, interests, and physical as well as psychological development of the students. Thus, the learning environment created by teachers in classrooms has to support the aspects of the learning environment mentioned in that academic manuscript of deep learning.

Considering those facts mentioned above, the researcher needs to select several approaches to address this issue. Agustin et al. (2021) states that the appropriate use of teaching strategies by teachers can significantly influence student achievement. Various strategies can be implemented by teachers to assist students in enhancing their comprehension. In summary, in this study, the researcher tries to apply the cooperative learning, those are jigsaw and Student Teams Achievement Division (STAD) technique which build competencies of collaboration, communication, critical thinking, and also creativity.

Jigsaw technique is a cooperative learning strategy designed to enhance student comprehension through collaboration in small groups. According to Tram (2021), jigsaw technique encourages students to become "experts" in a specific portion of the material before sharing their knowledge with other group members. The previous studies relate to jigsaw technique done by AL-Owaidi (2024); and Zulyanis and Natasha (2024), evaluate the effectiveness of implementing jigsaw technique to improve English language proficiency. The results of those studies indicate that jigsaw technique effectively enhances academic performance among students in general, and specifically improve students' reading abilities.

The other strategy, STAD technique is a cooperative learning approach developed by Slavin (1982) as referenced in a journal by Nair and Sanai (2018), that emphasizes the importance of collaboration within groups to achieve academic

success. In this technique, students are divided into diverse teams and work together to learn specific content. The previous studies connect to STAD technique, done by Khalid and Hameed (2023), and Ihtada et al. (2024), examine the effectiveness of implementing STAD technique to improve English language proficiency. The findings show that STAD has significant effect for enhancing students' reading comprehension.

Moreover, the previous studies associate with reading comprehension, done by Yapp et al. (2023); and Abdulrazzaq et al. (2024), reveal that reading comprehension can be achieved through various strategies. Those studies find some strategies in enhancing reading skills, such as skimming, scanning, making predictions, questioning, teaching cohesion, giving the explicit instruction of reading strategies, and so on. Based on the previous studies about reading comprehension above, it can be concluded that many techniques can be applied to foster students' reading comprehension.

Factors influencing comprehension levels are not only related to the teaching strategies employed by educators. Teachers should observe students' motivation levels in the reading comprehension learning process. Learning motivation plays a crucial role in encouraging individuals to achieve a solid understanding while reading. In line with this, seven (2019) emphasizes that learning motivation is a key factor in the English language learning process and can assist students in reaching their language learning objectives. The previous studies related to student motivation, done by Dewaele and Meftah (2023 and 2024), and Asan et al. (2025), show that motivation plays important roles in language learning outcomes. Those studies emphasize the crucial role of motivation in student learning, particularly in the context of English language education. Based on the previous studies about student motivation above, it can be inferred that motivation is very essential in achieving language learning acquisition.

In this study, the researcher intends to implement jigsaw and STAD techniques to help students enhance their reading comprehension and to test which of the two strategies produces more significant results. Thus, it aims to investigate the effectiveness of jigsaw and STAD techniques in teaching reading comprehension to students with both high and low motivation.

The main research question of the study is how is the effectiveness of jigsaw and STAD techniques in teaching reading comprehension to the ninth-grade students with low and high motivation at a state junior high school in Semarang in the academic year 2025/2026? This question is broken down into seven sub questions, those are:1. How effective is jigsaw technique in teaching reading comprehension to students with high motivation? 2. How effective is jigsaw technique in teaching reading comprehension to students with low motivation? 3. How effective is STAD technique in teaching reading comprehension to students with high motivation? 4. How effective is STAD technique in teaching reading comprehension to students with

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

low motivation? 5. What is the significant difference of jigsaw technique in teaching reading comprehension to students with high and low motivation? 6. What is the significant difference of STAD technique in teaching reading comprehension to students with high and low motivation? 7. Does the effectiveness of the jigsaw and STAD techniques remain consistent across students with different levels of motivation in improving reading comprehension? For the triangulation of the experimental research, two research questions derived from qualitative data as follows: 8. How is the students' perception of the implementation of jigsaw and STAD techniques? 9. How is the teacher's reflection on the implementation of jigsaw and STAD techniques?

Method

This study employs a quantitative approach to examine the effectiveness of the Jigsaw and STAD techniques in teaching reading comprehension. It employs an experimental research design with two experimental groups: one taught using the Jigsaw technique and the other using the STAD technique. Students' motivation levels, categorized as high or low based on a validated questionnaire adapted from Pintrich et al. (1991), serve as a moderating variable. A 2 × 2 factorial design is applied to examine the main and interaction effects of teaching techniques and motivation levels on students' reading comprehension.

The population of this research consists of ninth grade students at a state junior high school in Semarang in the academic year 2025/2026. A total of 33 students from Class 9B are taught using the jigsaw technique, while 33 students from Class 9F are instructed using the STAD technique.

This study employs three key variables within a quantitative framework. The independent variable is the teaching method (Jigsaw and STAD), while the moderating variable is students' motivation level (high and low), determined through a pre-treatment motivation questionnaire. The dependent variable is reading comprehension achievement, measured through pre-tests and post-tests. Data were analyzed using SPSS with Paired Sample T-Test, Independent Sample T-Test, and Two-Way ANOVA.

The quantitative data in this study consist of students' pre-test and post-test scores, which are used to measure improvements in their reading comprehension achievement. These data are then triangulated with students' perceptions and the teacher's reflection to strengthen the validity of the findings. Additionally, data on students' motivation are obtained from a questionnaire administered prior to the implementation of the jigsaw and STAD techniques.

Prior to data analysis, the pre-test and post-test instruments are examined to ensure their validity and reliability using SPSS with pilot data from Class 9A. The normality of the data distribution is assessed through both the Shapiro-Wilk and Kolmogorov-Smirnov tests to verify its conformity to a normal distribution. Additionally, Levene's test is employed to evaluate the homogeneity of variance,

ensuring that the variances across groups were equivalent. These tests are essential for validating the assumptions required for subsequent statistical analyses. Students' motivation levels are analyzed using Microsoft Excel. To analyze the pre-test and post-test data, the researcher employs the Statistical Package for the Social Sciences (SPSS) version 27. The analysis is conducted in the following steps: (1) Paired-Sample t-test, (2) Independent t-test, (3) ANOVA, and (4) interpretation of the results.

Results

Table 1. Paired Sample T-Test of Jigsaw technique for High Motivation Students

Pre-Test Mean	Post-Test Mean	Mean Difference	Correlation	Sig. (2-tailed)
68.53	80.59	-12.059	0.637	0.006

For 17 highly motivated students, the jigsaw technique significantly improved reading comprehension, as indicated by a mean score increase of 12.06 points from the pre-test to the post-test ($p = 0.006 < 0.05$). Therefore, the alternative hypothesis (H1.1) was accepted. The results of this research show that the jigsaw technique is effective for highly motivated students in improving their reading comprehension. Students with high motivation demonstrated a better understanding of the text and were more active during discussions. This result suggests that the jigsaw technique successfully stimulates students' cognitive engagement by encouraging them to share responsibility and collaborate in constructing meaning from the text.

Table 2. Paired Sample T-Test of Jigsaw technique for Low Motivation Students

Pre-Test Mean	Post-Test Mean	Mean Difference	Correlation	Sig. (2-tailed)
51.25	68.44	-17.188	0.657	0.006

For 16 low motivated students, the jigsaw technique significantly improved reading comprehension, as indicated by a mean score increase of 17.19 points from the pre-test to the post-test ($p = 0.006 < 0.05$). Therefore, the alternative hypothesis (H1.2) was accepted. The results of this research show that the jigsaw technique is effective for low motivated students in improving their reading comprehension. Students with low motivation showed noticeable improvement through peer interaction and structured group learning. This result demonstrates that the jigsaw technique stimulates learners' cognitive engagement by facilitating collaborative interactions and mutual accountability, thereby enhancing students' reading comprehension.

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

Table 3. Paired Sample T-Test of STAD technique for High Motivation Students

Pre-Test Mean	Post-Test Mean	Mean Difference	Correlation	Sig. (2-tailed)
67.50	79.44	-11.94	0.817	0.000

For 18 highly motivated students, the STAD technique significantly improved reading comprehension, as indicated by a mean score increase of 11.94 points from the pre-test to the post-test ($p = 0.000 < 0.05$). Therefore, the alternative hypothesis (H1.3) was accepted. The results of this research show that the STAD technique is effective for highly motivated students in improving their reading comprehension. Students with high motivation performed better and showed higher participation levels in group activities.

Table 4. Paired Sample T-Test of STAD technique for Low Motivation Students

Pre-Test Mean	Post-Test Mean	Mean Difference	Correlation	Sig. (2-tailed)
50.67	68.00	-17.33	0.582	0.023

For 15 low motivated students, the STAD technique significantly improved reading comprehension, as indicated by a mean score increase of 17.33 points from the pre-test to the post-test ($p = 0.023 < 0.05$). Therefore, the alternative hypothesis (H1.4) was accepted. The results of this research show that the STAD technique is effective for low motivated students in improving their reading comprehension. Students with low motivation demonstrated considerable improvement through structured teamwork and teacher guidance. This finding indicates that STAD encourages students to take responsibility for both their own and their group's learning progress, which increases engagement and comprehension.

Table 5. Independent Samples T-Test of Jigsaw Technique: Comparison Between High and Low Motivation Students

Sig. Levene's Test for Equality of Variances	**0.323**	
Group	**Mean Score**	
High Motivation Students	80.59	
Low Motivation Students	68.44	
Mean Difference	-12.151	
Sig. (2-tailed)	0.000	
95% Confidence Interval of the Difference	**Lower**	**Upper**
	-15.827	-8.475

The statistical findings revealed that the students' motivation level significantly influenced the effectiveness of the jigsaw technique in teaching reading comprehension. The Independent Samples T-Test showed that students with high motivation achieved considerably higher post-test scores (mean = 80.59) than those

with low motivation (mean = 68.44), with a mean difference of 12.15 points (p = 0.000 < 0.05). These results confirm that the difference between the two groups was statistically significant, leading to the acceptance of the alternative hypothesis (H1.5). This indicates that students with higher levels of motivation benefited more from the jigsaw learning model, suggesting that motivation plays an essential role in maximizing the effectiveness of cooperative learning strategies.

Table 6. Independent Samples T-Test of STAD Technique: Comparison between High and Low Motivation Students

Sig. Levene's Test for Equality of Variances	**0.877**	
Group	**Mean Score**	
High Motivation Students	79.44	
Low Motivation Students	68.00	
Mean Difference	-11.444	
Sig. (2-tailed)	0.000	
95% Confidence Interval of the Difference	**Lower**	**Upper**
	-14.915	-7.974

The statistical findings revealed that the students' motivation level significantly affected the effectiveness of the STAD technique in teaching reading comprehension. The Independent Samples T-Test showed that students with high motivation achieved considerably higher post-test scores (mean = 79.44) than those with low motivation (mean = 68.00), with a mean difference of 11.44 points (p = 0.000 < 0.05). These results confirm that the difference between the two groups was statistically significant, leading to the acceptance of the alternative hypothesis (H1.6). This indicates that students with higher motivation benefited more from the STAD learning model, suggesting that motivation plays an important role in determining students' success in cooperative learning environments.

Table 7. Two-Way ANOVA: Effects of Teaching Techniques, Motivation, and Their Interaction on Reading Comprehension

Two-Way ANOVA	**F**	**Sig.**
Teaching Techniques	0,407	0,526
Level_of_Motivation	90,590	0,000
Teaching Techniques* Level_of_Motivation	0,081	0,777

The statistical findings revealed that both the Jigsaw and STAD techniques were consistently effective in improving students' reading comprehension across different levels of motivation. The Two-Way ANOVA results showed no significant interaction between teaching techniques and motivation levels (p = 0.777 > 0.05), indicating that the effectiveness of the two methods did not depend on whether students had high or low motivation. Furthermore, while the teaching techniques themselves showed no significant difference in overall effectiveness (p = 0.526 >

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

0.05), the level of motivation had a significant main effect on students' performance ($p = 0.000 < 0.05$). These results led to the acceptance of the alternative hypothesis (H1.7), confirming that both Jigsaw and STAD techniques consistently enhance reading comprehension among students regardless of their motivation level.

Regarding to the students' perception of the implementation of jigsaw and STAD techniques, in general, students expressed positive emotions toward the implementation of the jigsaw and STAD techniques in reading activities. They enjoyed working collaboratively and found the lessons more interesting and interactive. All students agreed that working together in groups helped them understand the reading text better. They admitted that collaborative work improved their comprehension of the text. The interview results showed that all students felt motivated when learning through the both jigsaw and STAD techniques.

Furthermore, based on the teacher's reflection on the implementation of jigsaw and STAD techniques, it was found that the jigsaw and STAD techniques encouraged student accountability and fostered active participation. Then, both techniques enabled students to collaborate effectively within their teams. Next, those techniques fostered a more student-centered learning environment. This occurred because students actively collaborated in groups to complete their tasks, while the teacher acted as a facilitator who guided them to work collaboratively.

Discussion

For 17 highly motivated and 16 low motivated students, the jigsaw technique significantly improved reading comprehension. These findings are consistent with the theory proposed by Slavin (2015), who stated that cooperative structures such as jigsaw provide opportunities for learners to work interdependently, thereby enhancing comprehension and social skills. Regarding the improvement of reading comprehension, this study aligns with the findings of Al-Owaidi (2024), and Zulyanis and Natasha (2024), which demonstrate that the jigsaw technique enhances students' reading comprehension. It significantly increases students' reading achievement by activating prior knowledge, improving critical thinking, and fostering positive group dynamics.

For 18 highly motivated and 15 low motivated students, the STAD technique significantly improved reading comprehension. These findings are in line with Slavin (2015), who emphasized that STAD promotes positive interdependence and individual accountability, motivating students to support each other in achieving shared goals. Regarding the improvement of reading comprehension, this study is in line with the findings of Khalid and Hameed (2023), and Ihtada et al. (2024), which prove that the STAD technique can enhance students' reading comprehension.

The statistical findings revealed that the students' motivation level significantly influenced the effectiveness of the jigsaw and STAD techniques in teaching reading comprehension. Regarding the level of motivation, the results of this study, which show a significant difference between the reading comprehension

achievement of highly motivated and low-motivated students, indicate that teachers need to pay attention to this motivational aspect when improving their students' reading performance. This study concludes that motivation plays an essential role in determining reading achievement. It is related to the research results found by Dewaele and Meftah (2023, 2024), and Asan et al. (2025), which highlight that motivation plays a fundamental role in facilitating students' learning processes.

The statistical findings revealed that both the Jigsaw and STAD techniques were consistently effective in improving students' reading comprehension across different levels of motivation. This result is consistent with the theoretical framework of cooperative learning proposed by Kagan and Kagan (2009), who emphasize the principles of positive interdependence, individual accountability, equal participation, and simultaneous interaction. Moreover, teachers are also encouraged to continue exploring various instructional techniques within the framework of cooperative learning, including the jigsaw and STAD techniques. Cooperative learning, as a teaching strategy, greatly helps students improve their English learning achievement, particularly in reading skills. The results of this study are consistent with the research results found by Widiastuti (2024) and Zaenuddin et al. (2024), which have shown that cooperative learning can enhance students' performance in learning English in all skills, including reading.

Based on the students' perception of the implementation of jigsaw and STAD techniques, in general, students expressed positive emotions toward the implementation of the jigsaw and STAD techniques in reading activities. It also relates with theory of motivation by Maslow, in Kagan and Kagan (2009), that individuals must first fulfill basic needs like safety and belonging before they can focus on higher needs such as learning and self-development. In cooperative learning, students feel safe and included through supportive group norms and teamwork, which frees their energy to pursue esteem and knowledge. Therefore, the positive emotions experienced by most students in the experimental class using the jigsaw and STAD techniques indicate that they felt safe, comfortable, and happy to participate in the lesson.

At last, based on the teacher's reflection on the implementation of jigsaw and STAD techniques, it was found that the jigsaw and STAD techniques encouraged student accountability and fostered active participation. According to Kagan and Kagan (2009), individual accountability plays a crucial role in enhancing performance because individuals tend to work harder when they know their contributions will be recognized or evaluated. Those techniques also fostered a more student-centered learning environment. This condition aligns with one of the educational philosophies stated by Az-Zarmuji in *Permendikbudristek* Number 13 (2025), which emphasizes that a systematic learning strategy promotes inquiry and collaboration, enabling students to actively construct understanding through exploration, discussion, and reflection rather than passively receiving information.

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

Conclusion

Based on the sections of results and discussions, it can be concluded that the jigsaw and STAD techniques significantly improved reading comprehension for highly motivated and low motivated students. Then, it was found that the students' motivation level significantly influenced the effectiveness of the jigsaw and STAD techniques in teaching reading comprehension. Next, both techniques were consistently effective in improving students' reading comprehension across different levels of motivation. It means that teachers are encouraged to continue exploring various instructional techniques within the framework of cooperative learning, including the jigsaw and STAD techniques. Based on the students' perception of the implementation of jigsaw and STAD techniques, they had positive emotions and perspective toward it. At last, according to the teacher's reflection, those techniques also promoted a more student-centered learning environment.

References

Abdulrazzaq, D. M., Edan, M. A., and Heidarzadegan, N. (2024). An exhaustive examination of the integration of literature into teaching/learning strategies for advancing English reading comprehension: A systematic literature review. ELE Reviews: English Language Education Reviews, 4(1), 40–59. https://doi.org/10.22515/elereviews.v4i1.7637

Agustin, W., Wahyudin, A. Y., and Isnaini, S. (2021). Language learning strategies and academic achievement of English department students. Journal of Arts and Education, 1(1), 19–29. https://doi.org/10.33365/jae.v1i1.34

Al-Owaidi, R. T. G. (2024). Jigsaw strategies in teaching English as a foreign language at the university level. Innovation in Language Learning (17th ed.). [Publisher information not provided].

Anggraena, Y., Ginanto, D.E., Kesuma, A.T., and Setiyowati, D. (2025). Panduan pembelajaran dan asesmen pendidikan anak usia dini, pendidikan dasar, dan pendidikan menengah (Edisi revisi, 2025). Badan Standar, Kurikulum, dan Asesmen Pendidikan (BSKAP), Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi.

Asan, S. M., Wahyuni, S., and Yulianto, H. J. (2025). Teaching styles and learning facilities influencing student motivation in English learning. Language Circle: Journal of Language and Literature, 19(2s), 167–179. https://doi.org/10.15294/lc.v19i2s.26707

Banditvilai, C. (2020). The effectiveness of reading strategies on reading comprehension. International Journal of Social Science and Humanity, 10(2), 46–50. https://doi.org/10.18178/ijssh.2020.v10.1012

Derakhshan, A., Coombe, C., Arabmofrad, A., and Taghizadeh, M. (2020). Investigating the effects of English language teachers' professional identity and autonomy in their success. Issues in Language Teaching, 9(1), 1–28. https://ilt.atu.ac.ir/article_11076.html

Dewaele, J. M., and Meftah, R. (2024). How motivation and enjoyment spread their wings during English foreign language learning: A pseudo-longitudinal investigation into Moroccan learners. Learning and Motivation, 85, 101962. https://doi.org/10.1016/j.lmot.2024.101962

Dewaele, J.-M., and Meftah, R. (2023). The trajectory of English foreign learners' emotions and motivation from the start to the end of their learning journey: A pseudo-longitudinal investigation. Journal of the European Second Language Association, 7(1), 16–30. https://doi.org/10.22599/jesla.94

Ihtada, B., Wulandari, R. S., and Suwandi. (2024). The effectiveness of Student Team Achievement Division (STAD) and Directed Reading Thinking Activity (DRTA) strategies in teaching reading comprehension to students with different levels of motivation at MAS Ahmad Dahlan Tegal. International Journal of Research and Review, 11(7), 145–155. https://doi.org/10.52403/ijrr.20240716

Kementerian Pendidikan Dasar dan Menengah Republik Indonesia. (2025). Pembelajaran mendalam menuju pendidikan bermutu untuk semua. Pusat Kurikulum dan Pembelajaran.

Creswell, J. W. (2015). Educational research: Planning, conducting, and evaluating quantitative and qualitative research (C. Robb and M. Buchholtz, Eds.; 4th ed.). Edwards Brothers Inc.

Kagan, S., and Kagan, M. (2009). Cooperative Learning. Kagan Publishing.

Kementerian Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia. (2025). Peraturan Menteri Pendidikan, Kebudayaan, Riset, dan Teknologi Republik Indonesia Nomor 13 Tahun 2025 perubahan atas peraturan menteri pendidikan, kebudayaan, riset, dan teknologi nomor 12 tahun 2024 tentang kurikulum pada pendidikan anak usia dini, jenjang pendidikan dasar, dan jenjang pendidikan menengah. https://jdih.kemendikdasmen.go.id/sjdih/siperpu/dokumen/salinan/Permendikdasmen_No_13_Tahun_2025_ttg_Perubahan_atas_Permendikbudristek_No_12_Tahun_2024_ttg_Kurikulum_pada_Pendidikan_Anak_Usia_Dini_Jenjang_Dikdasmen.pdf

Khalid, M. A., and Hameed, B. A. (2023). The effect of using STAD strategy in teaching reading comprehension to EFL intermediate school students. Journal of Tikrit University for Humanities, 30(11, 2), 48–64. https://doi.org/10.25130/jtuh.30.11.2.2023.24

Nair, S. M., and Sanai, M. (2018). Effects of utilizing the STAD technique (cooperative learning approach) in enhancing students' descriptive writing skills. International Journal of Education and Practice, 6(4), 239–252. https://doi.org/10.18488/journal.61.2018.64.239.252

Nouwens, S., Groen, M. A., Kleemans, T., and Verhoeven, L. (2021). How executive functions contribute to reading comprehension. British Journal of Educational Psychology, 91(1), 169–192.

ISSN 2338-4778 (Print)
ISSN 2548-4192 (Online)

https://doi.org/10.1111/bjep.12355

Par, L. (2020). The relationship between reading strategies and reading achievement of the EFL students. International Journal of Instruction, 13(2), 223–238. https://doi.org/10.29333/iji.2020.13216a

Pintrich, P. R., Smith, D. A. F., Garcia, T., and McKeachie, W. J. (1991). A manual for the use of the Motivated Strategies for Learning Questionnaire (MSLQ). University of Michigan. https://eric.ed.gov/?id=ED338122

Slavin, R. E. (1982). Cooperative learning: Student teams. National Education Association.

Slavin, R. E. (2015). Cooperative learning in schools. International Encyclopedia of the Social & Behavioral Sciences (2nd ed., pp. 881–886). Elsevier. https://doi.org/10.1016/B978-0-08-097086-8.92028-2

Seven, M. A. (2019). Innovation in language learning and teaching. African Educational Research Journal, 8(2), 62–71. https://doi.org/10.1007/978-3-030-13413-6

Tram, B. V. T. (2021). Application of Jigsaw technique in teaching reading comprehension to English major sophomores at Dong Nai Technology University. American Journal of Sciences and Engineering Research, 4(3), 119–127. http://www.iarjournals.com

Widiastuti, I. A. M. S. (2024). Employing cooperative learning to enhance the university students' reading comprehension. Jurnal Ilmiah Global Education, 5(1), 516–524. https://doi.org/10.55681/jige.v5i1.2509

Yapp, D., de Graaff, R., and van den Bergh, H. (2023). Effects of reading strategy instruction in English as a second language on students' academic reading comprehension. Language Teaching Research, 27(6), 1456–1479. https://doi.org/10.1177/1362168820985236

Zaenuddin, N. H., Asriati, S., and Hafid, H. (2024). The use of Cooperative Integrated Reading and Composition (CIRC) learning model on the students' reading comprehension in learning English. English Language Teaching Methodology, 4(1), 56–61. https://doi.org/10.56983/eltm.v4i1.154

Zulyanis, F., and Natasha, H. (2024). The use of the Jigsaw technique on students' reading comprehension. Indonesian Journal of Integrated English Language Teaching (IJIELT), 10(1), 41–51.