Journal of English Language and Education
ISSN 2597- 6850 (Online), 2502-4132 (Print)
Journal Homepage: https://jele.or.id/index.php/jele/index

OPEN ACCESS Article

Behaviorism Approach through Operant Conditioning: Motivating Students in English Speaking Class

https://doi.org/10.31004/jele.v10i6.1682

*Ilham Sahabuddin, Asriadi Rasyid, Khadijah Maming, Sianna, Wahyuddin[abcde]
[1345]Universitas Muhammadiyah Parepare, Indonesia
[2]Institut Teknologi dan Bisnis Nobel Indonesia, Indonesia
Corresponding Author: ilham852803@gmail.com

A B S T R A C T

This study investigates whether applying behaviorist operant conditioning can better use reinforcement in EFL classrooms to increase students' speaking confidence, skills, and motivation. Using a quasi-experimental, non-equivalent control-group design, an experimental class received reinforcement while a control class followed conventional instruction; pre/post tests and a Likert-scale motivation questionnaire were analyzed with t-tests. Results show significant gains for the experimental group: mean speaking scores rose to Satisfactory (82.37) versus the control's Adequately outcome (69.12), score dispersion narrowed (SD 10.21 to 6.01), and post-test distributions shifted to Satisfactory. Motivation outcomes were robust, with most students reporting high motivation after reinforcement. We conclude that operant conditioning effectively strengthens desirable speaking behaviors, increases engagement, and reduces performance variability, offering a practical approach for speaking classes. Implications include integrating reinforcement, feedback, and repetition into classroom pedagogy to sustain gains.

Keywords: *Operant Conditioning, Behaviorism, Speaking Skills, Reinforcement, Learn Motivation*

Article History:
Received 08th November 2025
Accepted 11th December 2025
Published 13th December 2025

INTRODUCTION

The education quality is profoundly impacted by how the learning process is designed, focusing on various key elements such as the readiness of teachers, the adequacy of teaching methods, infrastructure, and psychological factors that influence students. A well structured learning process helps students actively engage and fosters their potential, ultimately leading to more successful learning outcomes (Kitson et al., 2023). Effective lesson planning can enhance student motivation, thereby creating experience more engaging and productive (Iqbal et al., 2021).

In the language learning context, particularly English, one of the critical challenges faced in education is the lack of appropriate teaching methods that align with the developmental psychology of students. While national curricula are frequently revised, this should not hinder teachers from designing effective learning processes (Zachary & Fain, 2022). The goal of any educational system is to facilitate meaningful changes in students, such as improved knowledge, skills, attitudes, and behaviors (Mahrus, 2021). Motivation plays a central role in this process, as it directly impacts students' ability to absorb and retain lessons (Adhikari et al., 2025).

Behavioral theories, particularly those focused on operant conditioning, have long been applied to enhance student motivation and learning outcomes. According to Skinner's operant conditioning framework, behavior is shaped primarily through the systematic application of reinforcement and punishment (Leeder, 2022). This theory has been widely applied in classrooms, especially in contexts where behaviors, such as speaking, need to be encouraged through positive reinforcement. Skinner's work suggests that learning is a function of environmental stimuli, and behavior is modified through reinforcement techniques (Nawi &

Nordin, 2025). Reinforcement refers to any consequence that strengthens a behavior. Positive reinforcement involves presenting a desirable stimulus (e.g., praise, extra points) after a correct response, whereas negative reinforcement involves removing an aversive stimulus (e.g., anxiety or corrective pressure) when the desired behavior occurs. By contrast, punishment is a consequence that weakens or reduces the likelihood of a behavior, either by presenting an unpleasant stimulus (positive punishment) or by removing a desirable one (negative punishment).

Research has shown that operant conditioning can significantly influence students' behavior, particularly in language acquisition (J. Macapagal, 2024). This theory's application in teaching English, especially speaking skills, has proven beneficial in motivating students to engage in more meaningful communication (Sari & Rahmani, 2024). By reinforcing positive speech behaviors and providing corrective feedback, teachers can create an environment that encourages active participation and learning (Maisarah, 2024).

While behaviorism often receives criticism for focusing too narrowly on observable behaviors and neglecting internal cognitive processes, it remains a dominant approach in educational settings (Hamidi et al., 2024). This is evident in various levels of schooling, from early childhood education to higher education, where reinforcement techniques are regularly employed to shape student behavior. Despite its limitations, behaviorism's influence continues to shape language teaching practices, particularly in the mastery of speaking skills (Gunawan et al., 2020).

English speaking skills are essential for students in a globalized world. However, the goal of helping students master these skills is not always achieved in practice. One of the primary challenges is the motivation of student lack, which is often caused by uninspiring teaching methods or a failure to highlight the importance of learning English. Teachers, therefore, play a pivotal role in fostering motivation by adopting engaging and effective teaching methods (Shafi & Jabeen, 2025). In the case of English speaking, this could involve the consistent application of behaviorist principles, such as reinforcing correct pronunciation and fluency, while providing feedback to correct errors (Ihsani et al., 2025).

Historically, traditional teaching methods, such as dialogues and conversations, were employed to teach speaking skills. However, these approaches is not always offer the necessary repetition and practice that is crucial for mastering a skill like speaking (Amirova, 2025). To address this gap, behaviorism offers a systematic approach, focusing on the repetition and reinforcement of desirable speaking behaviors, which ultimately leads to skill acquisition. This repetitive learning process, alongside reinforcements, helps students internalize new language patterns and confidently use them in real-life situations (Sarkar et al., 2025)

While operant conditioning remains a subject of debate, especially in regard to its emphasis on external reinforcement over internal cognitive processes, its continued use in the classrooms demonstrates its effectiveness in shaping student behavior. Studies have shown that behaviorism is still a dominant force in educational practices, particularly in language learning (Hinduja, 2021). Teachers routinely use reinforcement to encourage students' participation and speaking practice in English, suggesting that behaviorism is still a relevant and practical approach for improving speaking skills in English.

The operant conditioning implementation in teaching English speaking skills has the potential to influence not only students' speaking abilities but also their overall motivation to learn English. Research has indicated that students who receive consistent reinforcement for their language output tend to display higher levels of motivation and improved language performance (Rakasiwy et al., 2025). The ongoing use of behaviorist strategies such as positive reinforcement and error correction creates a conducive learning environment that fosters continuous improvement in speaking skills. Operant conditioning is reflected in the systematic use of stimulus, response, consequence sequences. Instructional prompts or tasks function as stimuli, students' spoken production constitutes the response, and the teacher's feedback, reinforcement, or punishment acts as the consequence. Through repeated cycles of reinforcement for accurate and fluent speech, and corrective feedback for errors, students

gradually strengthen desirable speaking behaviors and suppress less effective ones. This theoretical perspective underpins the use of behaviorist techniques to enhance both students' speaking performance and their motivation to participate actively in English speaking activities.

Considering the pivotal role of motivation in language learning, the significance of operant conditioning in fostering student motivation cannot be underestimated. Through the reinforcement of appropriate linguistic behaviors, learners are encouraged to participate more actively in instructional activities and to internalize newly acquired skills. This study seeks to examine the influence of operant conditioning on students' speaking abilities and motivational levels. The findings are expected to yield valuable insights into the implementation of behaviorist principles in language education and may suggest an alternative approach for enhancing English language teaching practices.

This study aims to address two primary research questions: first, whether a significant difference exists in students' speaking performance between the experimental and control groups following the implementation of operant conditioning; and second, whether operant conditioning exerts a positive influence on students' motivation to learn spoken English. The outcomes of this research are expected to contribute to the development of more effective instructional strategies that integrate behavioral principles to enhance language learning achievement.

METHOD

This research adopted a quasi-experimental design utilizing a non-equivalent control group approach. The primary objective was to examine the influence of operant conditioning, a fundamental concept within behaviorist theory, on students' English-speaking proficiency and motivation. The experimental group was exposed to treatment based on operant conditioning techniques, whereas the control group received no such intervention. Both groups participated in a pre-test to assess their initial speaking abilities and a post-test administered following the intervention. The results were analyzed by comparing the performance changes observed in the experimental group with those of the control group, which did not undergo the experimental treatment.

The primary variables in this study are: (1) Operant Conditioning of Behaviorism as the independent variable (X), and (2) Students' Learning Motivation in Speaking English as the dependent variable (Y). Operant conditioning, based on Skinner's theory, focuses on reinforcing behaviors to strengthen desired responses. This aligns the concept where reinforcement plays a crucial role in language learning. Motivation, which is critical for engagement in language learning (Wahyudin et al., 2025), is assessed using a questionnaire based on the influence of operant conditioning techniques on students' enthusiasm to learn English speaking.

In terms of operational definitions, operant conditioning is understood as a learning process where behaviors are modified through reinforcement, strengthening the likelihood of the behavior reoccurring (Kienzler et al., 2023). Learning motivation is defined as the internal drive that stimulates students to engage in learning activities and continue striving toward goals (Idaryani & Fidyati, 2021). Speaking ability, another key focus of this research, refers to the capacity to communicate ideas effectively in English, a skill central to the aims of English language education.

The participants of this study were tenth-grade students from SMA Muhammadiyah Parepare, located in South Sulawesi. Two classes comprising a total of 52 students were selected to serve as the experimental and control groups. Demographically, the students were between 15 and 16 years old, with a relatively balanced gender distribution between male and female learners. All participants came from middle socio-economic backgrounds and had approximately three to four years of prior formal English instruction at the preceding levels of education. The experimental group consist 27 students were provided with instruction incorporating operant conditioning techniques, whereas the control group consist 25 students

were taught using conventional, teacher-centered methods. To minimize bias, both groups demonstrated relatively homogeneous initial levels of English proficiency, as indicated by their English report card grades and the results of a diagnostic pre-test, which served as the basis for group assignment.

Data was collected using two primary instruments: (1) a speaking test administered before and after the treatment to measure students' speaking abilities, and (2) a questionnaire designed to assess students' motivation to learn English speaking. The speaking test focused on three components: accuracy, fluency, and comprehensibility, each scored according to a classification system (Fulcher, 2014). Meanwhile, the questionnaire included 20 statements with a Likert scale to measure students' motivation levels.

The data were analyzed using quantitative methods. The results of the speaking tests were examined through a comparison of pre-test and post-test scores, with the mean differences between the experimental and control groups evaluated using a t-test. This statistical procedure was employed to identify whether a significant difference existed in speaking performance between the two groups. Furthermore, the questionnaire data were analyzed employing a Likert-scale format to obtain a deeper understanding of students' motivational levels following the intervention.

This methodology is grounded in the theoretical framework discussed in the introduction, where operant conditioning is viewed as a method that can significantly influence both motivation and behavior in language learning. By examining the effects of this approach, this study aims to contribute valuable insights into improving English speaking skills.

FINDINGS AND DISCUSSION

Findings

The data revealed in this research consisted of two main objectives namely, the implementation of the operant conditioning of behaviorism theory in learning speaking, and the students' motivation in learning speaking English toward the implementation of operant conditioning of behaviorism theory.

As noted in the preceding description that the results of the students' pre-test and post-test scores in both groups for speaking ability were converted into percentages and subsequently categoried into five distinct categories, as illustrated in the following table.

Table 1. The frequency and percentage distribution of the experimental group's pre-test results.

Categories	Score	Frequency	Percentage
Exceptional	86-100	-	-
Satisfactory	71-85	-	-
Adequately	56-70	20	74.07
Weak	41-55	7	25.93
Very Weak	0-40	-	-
Total		27	100

This table presents the frequency and percentage of students' scores in the pre-test for the experimental group. The majority of students (74.07%) were categoried as adequately with scores between 56–70, while 25.93% were categorized as weak with scores between 41–55. No students achieved exceptional or satisfactory scores. This indicates that before the treatment, most students had moderate proficiency levels.

Table 2. The frequency and percentage distribution of the experimental group's post-test results.

Categories	Score	Frequency	Percentage
Exceptional	86-100	9	33.33
Satisfactory	71-85	18	66.67
Adequately	56-70	-	-
Weak	41-55	-	-
Very Weak	0-40	-	-
Total		27	100

This table shows the post-test results of the experimental group. After the treatment, 66.67% of students achieved satisfactory scores (71–85), and 33.33% achieved exceptional scores (86–100). None of the students remained in the adequately, weak, or very weak

categories. This demonstrates a significant improvement in students' performance after applying the treatment.

In the control group, students were instructed in speaking through conventional, teacher-centered methods. During each session, the researcher administered a series of exercises aimed at enhancing the students' speaking proficiency. These activities were consistently implemented in every meeting throughout the instruction of the control class. The students in the experimental group were provided with the same learning materials to ensure content equivalence between the two groups.

Table 3. The frequency and percentage distribution of the control group's pre-test results.

Categories	Score	Frequency	Percentage
Exceptional	86-100	-	-
Satisfactory	71-85	-	-
Adequately	56-70	19	76
Weak	41-55	6	24
Very Weak	0-40	-	-
Total		25	100

This table displays the pre-test scores of the control group. The majority of students (76%) were categoried as adequately (56–70), while 24% were in the weak category (41–55). Similar to the experimental group, no students reached the satisfactory or exceptional levels before the treatment, indicating that both groups began with comparable levels of performance.

Table 4. The frequency and percentage distribution of the control group's post-test results.

Categories	Score	Frequency	Percentage
Exceptional	86-100	-	-
Satisfactory	71-85	10	48
Adequately	56-70	15	52
Weak	41-55	-	-
Very Weak	0-40	-	-
Total		25	100

This table illustrates the post-test results for the control group. A total of 52% of students remained in the adequately category (56–70), while 48% improved to the satisfactory category (71–85). No students reached the exceptional level. Although there was some improvement, it was not as substantial as in the experimental group.

The Significant Difference between Students' Pre-Test and Post-Test Achievement.

To determine the differences in students' speaking performance, the researcher conducted three analytical procedures: calculating the mean scores of the students' pre-test and post-test results, determining the standard deviation for both tests, and performing a t-test to compare the pre-test and post-test outcomes.

The mean scores obtained from the pre-test of both the experimental and control groups are presented in the following table:

Table 5. The mean score of students' pre-test.

Variable	Mean scores	Classification
The result of Pre test for Experimental group	61.04	Adequately
The result of Pre test for control group	60.96	Adequately

The table presents a comparison of the mean pre-test scores between the experimental and control groups. The experimental group achieved a mean score of 61.04, whereas the control group obtained a mean score of 60.96. Both were categoried as adequately, suggesting that the initial ability levels of both groups were relatively similar before the intervention.

The summarized mean scores for both the experimental and control groups are displayed in the following table:

Table 6. The mean score of students' post-test

Variable	Mean scores	Classification
The result of Post test for Experimental group	82.37	Satisfactory
The result of Post test for control group	69.12	Adequately

This table presents the mean post-test scores for both groups. The experimental group obtained a higher mean score of 82.37 (satisfactory classification), whereas the control group

achieved a mean of 69.12 (adequately classification). This finding suggests that the experimental group experienced a greater level of improvement following the treatment.

The standard deviation of the students' pre-test and post-test.

The standard deviation values for the students' pre-test and post-test results are provided in the following table:

Table 7. The standard deviation values of the students' pre-test and post-test scores.

Test	Standard Deviation (SD)	
	Experimental Group	Control Group
Pre-test	10.21	9.96
Post-test	6.01	9.53

This table reports the standard deviation values for both groups' pre- and post-tests. For the experimental group, the standard deviation decreased from 10.21 (pre-test) to 6.01 (post-test), suggesting more consistent performance after treatment. For the control group, the standard deviation slightly decreased from 9.96 to 9.53, indicating minimal improvement in score consistency. In general, the findings suggest that the experimental group exhibited both an increase in their average performance and a greater level of uniformity in learning outcomes.

The summary of inferential statistics for students' speaking class.

Table 8. The inferential statistics for students' speaking class.

Comparison	t(50)	p	Cohen's d	η^2	Interpretation
Pre-test: Experimental vs. Control	0.03	.98	0.01	.00	No significant initial difference
Post-test: Experimental vs. Control	6.04	< .001	1.68	.42	Very large effect of the treatment

To examine whether the operant conditioning treatment produced a statistically significant improvement in students' speaking performance, independent-samples *t*-tests were conducted to compare the experimental and control groups. First, a *t*-test on the pre-test scores confirmed that there was no significant initial difference between the two groups, $t(50) = 0.03$, $p = .98$, Cohen's $d = 0.01$, $\eta^2 < .001$, indicating that both classes started from a comparable level of speaking proficiency.

In contrast, the post-test comparison revealed a statistically significant difference in favour of the experimental group, $t(50) = 6.04$, $p < .001$, Cohen's $d = 1.68$, $\eta^2 = .42$. The effect size can be interpreted as very large, suggesting that approximately 42% of the variance in post-test speaking scores was associated with group membership (experimental vs. control). These results provide strong evidence that the implementation of operant conditioning within the behaviorism approach substantially enhanced students' English speaking performance compared to conventional teacher-centered instruction.

Students' motivation.

Table 9. The classification of students' motivation.

Categories	Score	Frequency	Percentage
Very High	85-100	7	25.93
High	69-84	20	74.07
Adequately	52-68	-	-
Low	36-51	-	-
Very Low	20-35	-	-
Total		27	100

This table presents the distribution of students' motivation levels based on their scores. The results show that the most of students (74.07%) were the High category with scores ranging from 69–84, while 25.93% of students are categorized as Very High with scores between 85–100. There are no students in the adequately, low, or very low categories. These findings indicate that most students demonstrated strong motivation in learning English speaking after the implementation of the Behaviorism Approach through Operant Conditioning. The absence of lower categories suggests that the approach effectively enhanced students' enthusiasm, participation, and interest in learning.

Discussions.

The findings of this study reveal a significant enhancement in students' English-speaking skills and motivation through the systematic application of the Behaviorism Approach based on Operant Conditioning. The data analysis shows that before the intervention, most students in within the experimental and control groups were categorized as "Adequately," with mean scores of 61.04 and 60.96, respectively. This initial similarity indicates that both groups had comparable proficiency levels at the outset, which strengthens the validity of the subsequent comparison. After the implementation of operant conditioning techniques in the experimental group, the mean score increased substantially to 82.37, which is categoried as "Satisfactory," whereas the control group only achieved a modest rise to 69.12, remaining within the "Adequately" range. This sharp contrast in outcomes demonstrates that the reinforcement mechanisms inherent in operant conditioning play a pivotal role in enhancing students' speaking performance. These results are consistent with Skinner's theoretical framework, which posits that human behavior is shaped, maintained, and strengthened through systematic reinforcement (Leeder, 2022; Nawi & Nordin, 2025).

From a theoretical standpoint, these findings substantiate the principle that external reinforcement can effectively modify learner behavior by fostering positive associations with desirable academic outcomes (Macapagal, 2024). The consistent application of rewards, constructive feedback, and positive reinforcement in the experimental group appears to have motivated students to participate more actively and confidently in classroom speaking activities. Reinforcement encouraged them to engage in more verbal interactions, gradually reducing hesitation and anxiety often associated with language production. This behavioral shift exemplifies the process of shaping, wherein learners' successive approximations toward correct speech are strengthened over time through reward mechanisms.

Moreover, the decline in the experimental group's standard deviation from 10.21 to 6.01 indicates greater homogeneity in students' achievement levels, suggesting that operant conditioning not only improved average performance but also minimized the performance gap among learners. Such uniformity implies that reinforcement techniques benefit students of varying abilities, promoting equitable learning outcomes. This aligns with the structured and repetitive nature of behaviorist learning, which emphasizes systematic practice and reinforcement as pathways to stable skill acquisition (Amirova, 2025; Sarkar et al., 2025). In other words, repetition combined with reinforcement ensures that linguistic responses become habitual, thereby increasing fluency and accuracy in spoken English.

The study's motivational findings further reinforce the pedagogical value of operant conditioning. The results indicate that 74.07% of students demonstrated high motivation, while 25.93% reached a very high level of motivation after exposure to the behaviorist-based intervention. These figures underscore the strong relationship between reinforcement and learner motivation. When students experience tangible success, acknowledgment, or rewards for their efforts, they develop a sense of accomplishment that intrinsically sustains their interest in learning. This phenomenon aligns with Sari and Rahmani's (2024) argument that reinforcement can function as an intrinsic motivator once learners internalize the satisfaction derived from positive learning outcomes. Consequently, the learning environment transformed into one that was both supportive and stimulating, encouraging students to take linguistic risks and practice speaking without fear of criticism or failure.

Conversely in the control group, which received instruction through conventional, teacher-centered methods demonstrated only slight improvement in both performance and motivation. This finding underscores the constraints of traditional instructional approaches that often rely on passive learning, delayed feedback, and minimal reinforcement. Without consistent acknowledgment or immediate corrective feedback, students in the control group likely lacked the stimulus to modify or sustain their learning behavior (Gunawan et al., 2021). As a result, their progress was less pronounced, demonstrating that mere exposure to instructional content is insufficient for behavioral or motivational transformation. This finding resonates with previous studies emphasizing that reinforcement and engagement are essential components for effective language acquisition.

Furthermore, the emotional and psychological dimensions of learning observed in this study reveal how operant conditioning extends beyond mere behavior modification. The provision of rewards and positive reinforcement not only enhanced academic outcomes but also contributed to the development of a more positive classroom climate. Students reported feeling more confident and valued, which, in turn, fostered cooperative learning behaviors and peer support. The increase in motivation levels indicates that reinforcement can help cultivate intrinsic interest over time, suggesting a dynamic interaction between extrinsic and intrinsic motivational factors. This supports Shafi and Jabeen's (2025) contention that teachers' reinforcement strategies and behavioral cues exert a significant influence on students' emotional engagement and long-term motivation.

The implications of these findings are far reaching. They confirm that operant conditioning remains a relevant and effective framework in modern language education, despite the emergence of constructivist and communicative paradigms. While contemporary approaches often emphasize learner autonomy and interaction, the structured reinforcement strategies derived from behaviorism provide a complementary foundation for skill development, particularly in the early stages of language learning where habit formation is crucial. Teachers can utilize reinforcement techniques such as verbal praise, token rewards, or performance-based feedback to strengthen students' productive skills systematically. This hybridization of behavioral and communicative principles may lead to more balanced and sustainable learning outcomes.

Overall, the discussion validates the central premise of behaviorist theory: learning is most effective when positive behaviors are reinforced systematically. Through reinforcement, feedback, and repetition, students not only improved their speaking skills but also developed sustained motivation. These findings affirm that operant conditioning remains a relevant and practical approach for enhancing both behavioral and affective dimensions of language learning in modern educational contexts.

CONCLUSIONS

The findings of this study indicate that the implementation of operant conditioning significantly enhanced students' English-speaking performance and learning motivation. Students in the experimental group, who received instruction through reinforcement, feedback, and repetition, achieved higher speaking scores and demonstrated more consistent performance than those taught through conventional teacher-centered methods. Operant conditioning also positively influenced students' motivation, as reflected in the high to very high motivation levels among the experimental group, who showed greater enthusiasm and willingness to participate in speaking activities. In summary, this study confirms that operant conditioning is effective not only in improving students' speaking achievement but also in fostering their motivation to learn English. These results support the continued relevance of behaviorist principles as a practical and beneficial approach in contemporary language teaching.

REFERENCES

Adhikari, N. P., Budhathoki, J. K., & Adhikari, S. (2025). Student Motivation in the Classroom: Practical Techniques and Strategies. *Cognition*, *7*(1), 67–75. https://doi.org/10.3126/cognition.v7i1.74765

Amirova, N. (2025). Traditional vs. Non-Traditional Teaching in Secondary Education: A Comparative Analysis. *Porta Universorum*, *1*(3), 101–109. https://doi.org/10.69760/portuni.010309

Fulcher, G. (2014). *Testing Second Language Speaking*. Routledge. https://doi.org/10.4324/9781315837376

Gunawan, G., Ainin, M., & Bahruddin, U. (2020). The Acquisition Of Speaking Skills For Students Based On The Behaviorism And Cognitivism Theories/ اكتساب مهارة الكلام لدى الطلاب

في ضوء النظرية السلوكية والمعرفية. *Ijaz Arabi Journal of Arabic Learning*, *4*(1), 102–121. https://doi.org/10.18860/ijazarabi.v4i1.10581

Hamidi, H., Hejran, A. B., Sarwari, A., & Edigeevna, S. G. (2024). The Effect of Outcome Based Education on Behavior of Students. *European Journal of Theoretical and Applied Sciences*, *2*(2), 764–773. https://doi.org/10.59324/ejtas.2024.2(2).68

Hinduja, P. (2021). From Behaviorism to Constructivism in Teaching-Learning Process. *Journal of Education & Social Sciences*, *9*(2), 111–122. https://doi.org/10.20547/jess0922109204

Idaryani, I., & Fidyati, F. (2021). The Influence of Digital Technology on Students'motivation in Learning English Specific Purpose. *Journal of English Language and Education*, *6*(1), 69–81. https://doi.org/https://doi.org/10.31004/jele.v6i1.96

Ihsani, P. F., Nanda, D. S., & Susanto, S. (2025). Insights into Enhancing English Pronunciation and Vocabulary through Drilling and Word Repetition Techniques. *Journal of Scientific Insights*, *2*(1), 35–47. https://doi.org/10.69930/jsi.v2i1.276

Iqbal, Md. H., Siddiqie, S. A., & Mazid, Md. A. (2021). Rethinking theories of lesson plan for effective teaching and learning. *Social Sciences & Humanities Open*, *4*(1), 100172. https://doi.org/10.1016/j.ssaho.2021.100172

Kienzler, J., Voss, T., & Wittwer, J. (2023). Student teachers' conceptual knowledge of operant conditioning: How can case comparison support knowledge acquisition? *Instructional Science*, *51*(4), 639–659. https://doi.org/10.1007/s11251-023-09627-7

Kitson, N. K., Constantinou, A. C., Guo, Z., Liu, Y., & Chobtham, K. (2023). A survey of Bayesian Network structure learning. *Artificial Intelligence Review*, *56*(8), 8721–8814. https://doi.org/10.1007/s10462-022-10351-w

Leeder, T. M. (2022). Behaviorism, Skinner, and Operant Conditioning: Considerations for Sport Coaching Practice. *Strategies*, *35*(3), 27–32. https://doi.org/10.1080/08924562.2022.2052776

Macapagal, J. (2024). Language Acquisition in Diverse Linguistic, Social, and Cognitive Contexts: A Paper Review and Synthesis of Multifaceted Theories. *Journal of Interdisciplinary Perspectives*, *2*(2), 15–18. https://doi.org/10.69569/jip.2024.0017

Mahrus, M. (2021). Curriculum Management and Learning in the National Education System. *JIEMAN: Journal of Islamic Educational Management*, *3*(1), 41–80. https://doi.org/10.35719/jieman.v3i1.59

Maisarah, M. (2024). Enhancing Children's Learning Motivation through Positive Reinforcement: A Classroom Communication Strategy. *Jurnal Smart*, *10*(1), 81–95. https://doi.org/10.52657/js.v10i1.2289

Nawi, S. N. A. M., & Nordin, M. N. (2025). B.F. Skinner's Learning Theory and Teaching Strategies for Special Education Students. *Special Education [SE]*, *3*(1), e0043. https://doi.org/10.59055/se.v3i1.43

Rakasiwy, M. R. P., Cipta, V. D. S., & Fadhilah, N. A. N. (2025). The Role Of Operant Conditioning In Enhaching Learning Outcomes In Social Studies Education. *SOSEARCH : Social Science Educational Research*, *6*(1), 38–49. https://doi.org/10.26740/sosearch.v6n1.p38-49

Sari, T. K., & Rahmani, P. H. (2024). The Role of Positive Reinforcement on Students in English Language Learning: A Skinnerian behaviorist. *JOEY: Journal of English Ibrahimy*, *3*(1), 1–5. https://doi.org/10.35316/joey.2024.v3i1.1-5

Sarkar, B., Xia, W., Liu, C. K., & Sadigh, D. (2025). Training language models for social deduction with multi-agent reinforcement learning. *ArXiv Preprint ArXiv:2502.06060*. https://doi.org/10.48550/arXiv.2502.06060

Shafi, S., & Jabeen, F. (2025). Effective Strategies for Fostering Innovative Thinking and Enhancing Student Motivation. *International" Journal of Academic Research for Humanities"*, *5*(1), 25–32. https://doi.org/https://zenodo.org/records/15252628

Wahyudin, W., Bachtiar, B., & Zuhairi, A. (2025). ELSA-Supported Blended Learning: Enhancing Vocational Students' Speaking and Motivation. *Journal of English Language and Education*, *10*(5), 572–581. https://doi.org/10.31004/jele.v10i5.1386

Zachary, L. J., & Fain, L. Z. (2022). *The mentor's guide: Facilitating effective learning relationships*. John Wiley & Sons.