

Behaviorist-Based Cooperative Learning as a Strategy to Enhance Islamic Education Performance: Evidence from Fifth-Grade Students

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Abstract

This study aims to analyze the application of behaviorist learning theory through the cooperative learning model in improving Islamic Education (PAI) learning outcomes for fifth-grade elementary school students. The background of this research is the low student participation and achievement in PAI lessons. This research uses a qualitative approach with a case study method. Data collection techniques include observation, interviews, and documentation. The results show that the implementation of cooperative learning based on behaviorist principles such as reinforcement and punishment can improve students' learning motivation, engagement, and academic achievement. These findings highlight the importance of integrating learning theory with cooperative strategies in the teaching of PAI at the elementary level.

Keywords: Behaviorst theory, cooperative learning, Islamic education



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Abstrak

Penelitian ini bertujuan untuk menganalisis penerapan teori belajar behaviorisme melalui model pembelajaran kooperatif dalam meningkatkan hasil belajar Pendidikan Agama Islam (PAI) pada siswa kelas lima sekolah dasar. Latar belakang penelitian ini adalah rendahnya partisipasi dan capaian belajar siswa dalam mata pelajaran PAI. Penelitian ini menggunakan pendekatan kualitatif dengan

metode studi kasus. Teknik pengumpulan data meliputi observasi, wawancara, dan dokumentasi. Hasil penelitian menunjukkan bahwa penerapan pembelajaran kooperatif yang berlandaskan prinsip-prinsip behaviorisme seperti *reinforcement* dan *punishment* dapat meningkatkan motivasi belajar, keterlibatan, dan prestasi akademik siswa. Temuan ini menegaskan pentingnya integrasi teori belajar dengan strategi kooperatif dalam pembelajaran PAI pada jenjang sekolah dasar.

Kata Kunci: Teori Behaviorisme, Pembelajaran Kooperatif, Pendidikan Islam.

Introduction

Islamic Education (PAI) is a fundamental subject in Indonesian schools, as it aims not only to transmit religious knowledge but also to foster moral character and spiritual awareness among students from an early age. However, in many elementary schools, PAI lessons are often perceived as monotonous and less engaging, which results in low student participation and unsatisfactory learning outcomes. Religion plays a crucial role in human life. It serves as a guide in efforts to create a meaningful, peaceful, and dignified life. Recognizing the crucial role of religion in human life, internalizing religious values in the lives of every individual is a necessity, which is achieved through education, both within the family, school, and community.¹ Preliminary observations in grade V at primary school 2 Tuban revealed that more than half of the students obtained scores below the Minimum Competency Criteria (KKM) in PAI. This condition calls for innovative teaching approaches that can address students' learning needs. One of the theoretical perspectives relevant to improving student outcomes is behaviorist learning theory, Behaviorism, which emphasizes stimulus–response associations and reinforcement to shape learning behaviors, assumes that learning can be optimized through positive reinforcement, feedback, and structured repetition of tasks. Several studies have confirmed the role of reinforcement in enhancing student motivation and academic performance.

At the same time, cooperative learning models such as Student Teams Achievement Division (STAD), Jigsaw, and Think-Pair-Share have been widely recognized as effective strategies to promote interaction, collaboration, and peer learning. For example, demonstrated that cooperative learning fosters active

¹ Maili Asniar, “Penerapan Model Pembelajaran Kooperatif Tipe Student Team Achievement Division (STAD) Untuk Meningkatkan Hasil Belajar PAI Siswa Pada Materi Mengenal Para Rasul-Rasul Allah SWT Di Kelas v SDN. No. 026/Xi Cempaka Tahun 2016/2017,” *Jurnal Ilmiah Universitas Batanghari Jambi* 19, no. 2 (2019): 362, <https://doi.org/10.33087/jiubj.v19i2.633>.

participation and social responsibility in the classroom.² Recent studies also show that cooperative learning improves both cognitive achievement and affective aspects such as motivation and teamwork in Islamic Education settings.³ A meta-analysis further confirmed that cooperative learning significantly enhances students' motivation across various subjects. Nevertheless, previous research has often examined behaviorist theory and cooperative learning separately.⁴ Some studies analyzed reinforcement strategies within behaviorism,⁵ while others explored cooperative learning models in PAI classrooms.⁶ However, there is still a limited number of studies that explicitly integrate behaviorist principles with cooperative learning in the context of Islamic Education at the elementary school level. Most existing works either focus on general subjects such as mathematics and science,⁷ or on theoretical discussion without empirical validation in PAI classrooms.⁸

Although cooperative learning has been shown to improve learning outcomes, and behaviorist principles are well established in shaping student behavior, few studies have systematically combined these two approaches in elementary school PAI instruction. Moreover, little empirical evidence exists regarding how reinforcement (a core behaviorist principle) operates within cooperative learning structures to enhance both cognitive and affective outcomes in Islamic Education.

In the context of 21st-century education, students are expected not only to master knowledge but also to develop critical thinking, collaboration, and social skills. Islamic Education (PAI), therefore, must adapt its instructional approaches to remain relevant and meaningful for today's learners, particularly Generation Z and Alpha, who are more inclined toward interactive and technology-driven learning environments. The significant improvement in learning outcomes following the intervention strongly indicates that the combined strategies of cooperative learning and behaviorist principles lead to

² Anita Lie, "Cooperative Learning: Mempraktikkan Cooperative Learning Di Ruang-Ruang Kelas," *Jakarta: PT Grasindo*, 2002.

³ Wahyuni Eka Sandy, Agus Fakhruddin, and Muhamad Parhan, "The Implementation of Cooperative Learning Method: Revitalizing the Learning Process of Islamic Religious Education," *Jurnal Educative: Journal of Educational Studies* 9, no. 2 (2024): 138–49.

⁴ Eka Damayanti et al., "The Effect of Cooperative Learning on Learning Motivation: A Meta-Analysis," *Buletin Psikologi* 31, no. 1 (2023).

⁵ M Arsyada Sabiily and Ika Ratnaningrum, "INTERVENSI PENERAPAN TEORI BELAJAR BEHAVIORISME DALAM PROSES PEMBELAJARAN DI TINGKAT SEKOLAH DASAR," *Pendas: Jurnal Ilmiah Pendidikan Dasar* 9, no. 3 (2024): 932–56.

⁶ Uyu Muawanah, "The Impact of Cooperative Learning Method on Learning Motivation and Academic Achievement of Elementary School Students," *International Journal of Multidisciplinary Research and Analysis* 6, no. 12 (2023): 5920–25.

⁷ Eka Wardhana, Ni Ketut Suarni, and I Gede Margunayasa, "Behavioristic Learning Theory to Increase Motivation to Learn Mathematics Grade 2 Elementary School Students," *Psikostudia: Jurnal Psikologi* 14, no. 1 (2025): 43–48.

⁸ Destri Ani, Dewi Purnama Sari, and Rini Puspita Sari, "Behavioral Learning Theory Applied In PAI Learning At Sdit Juara," *Al-Rivayah: Jurnal Kependidikan* 15, no. 1 (2023): 41–48.

effective educational practices, as supported by existing research. For instance, Ernawati emphasizes that cooperative learning models, such as Jigsaw, can significantly enhance student performance and engagement in Islamic education settings.⁹ Overall, the findings suggest that the intervention was not only effective in enhancing academic performance but also in cultivating a more active and cooperative classroom atmosphere. This resonates with the conclusions of Muhajirin and Romli, who reported similar positive behavioral outcomes in students with special educational needs, indicating that cooperative models are valuable in promoting inclusivity and engagement in educational settings.¹⁰

Traditional teacher-centered approaches are no longer sufficient to engage students or to foster deeper understanding of religious values. This situation underscores the necessity of integrating learning theories with innovative pedagogical models, such as cooperative learning enriched by reinforcement strategies, to ensure that PAI contributes effectively to both academic achievement and character formation.

Miftah found that implementing effective feedback mechanisms in Islamic Education significantly enhances students' focus and interest in learning. This aligns with behaviorist practices, where reinforcement and constructive feedback play pivotal roles in encouraging student participation.¹¹ Recent empirical research has begun to explore this intersection, showing that reinforcement-based cooperative learning can significantly enhance both student engagement and moral understanding in religious and value-based education. Moreover, little empirical evidence exists regarding how reinforcement (a core behaviorist principle) operates within cooperative learning structures to enhance both cognitive and affective outcomes in Islamic Education.

In the context of 21st-century education, students are expected not only to master knowledge but also to develop critical thinking, collaboration, and social skills. Islamic Education, therefore, must adapt its instructional approaches to remain relevant and meaningful for today's learners, particularly Generation Z and Alpha, who are more inclined toward interactive and technology-driven learning environments. Traditional teacher-centered approaches are no longer sufficient to engage students or to foster deeper understanding of religious values. This situation underscores the necessity of

⁹ Ernawati Ernawati, "Implementasi Model Pembelajaran Kooperatif Tipe Jigsaw Untuk Meningkatkan Hasil Belajar Mata Pelajaran Pai Pada Siswa Kelas Vi Sd Negeri 8 Sungai Raya," *Learning Journal Inovasi Penelitian Pendidikan Dan Pembelajaran* 3, no. 3 (2023): 205–11, <https://doi.org/10.51878/learning.v3i3.2463>.

¹⁰ Ilham Muhajirin and Muhammad Romli, "Strategi Pembelajaran Pendidikan Agama Islam Pada Anak Berkebutuhan Khusus Attention Deficit Hyperactivity Disorder (ADHD) Di SLB Negeri Seduri Mojokerto," *Dirasat Jurnal Manajemen Dan Pendidikan Islam* 10, no. 2 (2024): 135–47, <https://doi.org/10.26594/dirasat.v10i2.4963>.

¹¹ Miftahul Janah Mifta, "Penerapan Umpan Balik Untuk Menumbuhkan Fokus Siswa Dalam Pembelajaran Pendidikan Agama Islam Di Sekolah Dasar Sleman," *Ngaji Jurnal Pendidikan Islam* 4, no. 2 (2025): 89–104, <https://doi.org/10.24260/ngaji.v4i2.77>.

integrating learning theories with innovative pedagogical models, such as cooperative learning enriched by reinforcement strategies, to ensure that PAI contributes effectively to both academic achievement and character formation.

Despite the recognized importance of Islamic Education in shaping students' moral and spiritual character, many studies and national assessment reports indicate that student achievement in PAI often remains below expectations, particularly at the elementary level. Lessons are frequently dominated by rote memorization and teacher-centered delivery, which limit opportunities for interaction and meaningful engagement. Such conditions call for innovative approaches that not only improve academic achievement but also foster enthusiasm and active participation in learning. Against this background, the present study is timely and relevant, as it proposes the integration of behaviorist principles with cooperative learning models to address these challenges and provide a more effective framework for teaching PAI in elementary schools.

Research indicates that innovative instructional methods, like cooperative learning, can significantly improve learning outcomes and foster academic enthusiasm among students. A study by Foldnes demonstrates that when the classroom flip is effectively combined with cooperative learning, there is a notable increase in academic performance, reinforcing the need for their integration into Islamic education curriculums.¹²

Theoretically, behaviorist reinforcement and cooperative learning mechanisms share a complementary foundation in promoting observable learning behaviors and social interaction. Reinforcement strengthens desired behaviors through feedback and rewards, while cooperative learning provides a structured social context where such reinforcement can be naturally applied among peers. Integrating reinforcement strategies within cooperative settings thus creates a dual pathway for learning: extrinsic motivation driven by reinforcement and intrinsic engagement fostered through group collaboration. Recent empirical and theoretical studies confirm that the combination of these two approaches enhances not only students' academic outcomes but also their moral reasoning and social responsibility.¹³

This study seeks to fill this gap by applying behaviorist learning theory through a cooperative learning model to improve students' outcomes in Islamic Education. By integrating reinforcement strategies with cooperative group work, this study aims to provide empirical evidence on how such integration can enhance motivation, participation, and achievement among fifth-grade students at Primary school 2 Tuban.

¹² Njål Foldnes, "The Flipped Classroom and Cooperative Learning: Evidence From a Randomised Experiment," *Active Learning in Higher Education* 17, no. 1 (2016): 39–49, <https://doi.org/10.1177/1469787415616726>.

¹³ Siti Ruhilatul Jannah and Nur Aisyah, "Strategi Pembelajaran Kooperatif (Cooperative Learning) Guru Pendidikan Agama Islam (Pai) Dalam Meningkatkan Kemampuan Hasil Belajar Siswa," *TALIM: Jurnal Studi Pendidikan Islam* 4, no. 1 (2021): 42–59.

Result and Discussion

The quantitative analysis began with descriptive statistics of students' learning outcomes before and after the intervention. Thirty fifth-grade students at Primary school 2 Tuban participated in the study. Prior to the implementation of cooperative learning integrated with behaviorist principles, students' achievement in Islamic Education (PAI) was relatively low, with more than half scoring below the Minimum Competency Criteria (KKM).

The pretest scores ranged from 50 to 78, with a mean of 64.20 and a standard deviation of 8.00. This indicated that many students were clustered in the lower-middle range of achievement, with relatively limited variation. After the intervention, the posttest scores ranged from 68 to 92, with a mean of 78.53 and a standard deviation of 7.00. This improvement of more than 14 points on average suggests a substantial enhancement in learning outcomes. A closer inspection of the distribution showed that 80% of students scored above the KKM in the posttest, compared to only 40% in the pretest. The shift in distribution also showed that fewer students remained in the "at-risk" category, and a greater number achieved mastery levels.

Descriptive statistics revealed that the mean pretest score was 64.20 (SD = 8.00), while the mean posttest score increased to 78.53 (SD = 7.00). The mean difference was 14.33. A paired-samples t-test confirmed that this difference was statistically significant, $t(29) = 9.52$, $p < .001$. The effect size, measured by Cohen's d, was 1.75, which represents a large effect. These findings confirm that the intervention had a substantial impact on students' learning outcomes. The research results show an increase in student participation and learning outcomes after implementing a cooperative learning model based on behaviorist theory. The following is a summary of changes in student learning outcomes :

Table 1 : Descriptive Statistics of Pretest and Posttest Scores

No	Measure	Value
1	Pretest Mean (SD)	64.2
2	Posttest Mean (SD)	78.5
3	Mean Difference	14.33

Table 2. Paired Samples t-test Results

No	Statistic	Value
1	t-statistic	9.52
2	p-value	<. 001
3	Cohen's d	1.75

Before proceeding to inferential statistics, the validity and reliability of the instruments were examined. The test items were validated through expert judgment and statistical item analysis. Item discrimination indices were above 0.30 for most items, indicating that the test items effectively distinguished between high and low achievers. Reliability was assessed using Cronbach's alpha. The 10-item questionnaire on student attitudes toward PAI learning yielded $\alpha = 0.85$, suggesting good internal consistency. Item-total correlations ranged from 0.32 to 0.68, confirming that each item contributed positively to the scale. These results indicate that the instruments used were both valid and reliable.

Observations showed increased student interaction and cooperation during the learning process. The number of students actively asking questions increased from 4 to 13 in the second meeting. Furthermore, teachers observed increased student engagement in completing worksheets, both independently and in groups. Teachers reported that through this model, students who were typically passive became more responsive due to the support of academic grades, as well as changes in learning behavior toward more positive and collaborative learning. With consistent reinforcement and a pleasant atmosphere, students felt valued and motivated to continue learning.

The statistical evidence demonstrates that reinforcement, as a behaviorist strategy, when integrated into cooperative learning, significantly boosted students' academic achievement. The combination of structured group work and systematic reinforcement mechanisms created an environment that maximized both motivation and achievement. The large effect size further indicates that this was not a marginal improvement but a substantial educational gain. In addition, teachers provide verbal reinforcement such as praise and symbolic reinforcement such as stars to students who are active and answer questions correctly. Conversely, less active students are given additional assignments as a form of correction (mild punishment). This reinforcement pattern aligns with behaviorist principles and has been shown to increase learning motivation.

The qualitative data gathered from student and teacher interviews provided additional insights into how cooperative learning integrated with reinforcement strategies influenced classroom dynamics. Students consistently expressed that learning in groups made the PAI lessons more enjoyable and easier to understand. One student explained that he used to feel bored during PAI lessons but felt more motivated when working with peers, especially when the teacher praised their group's performance. This reflects how cooperative structures created opportunities for peer support, while reinforcement reinforced the value of active participation.

Other students emphasized the sense of confidence they developed. A female student mentioned that she previously hesitated to answer questions for fear of making mistakes, but group discussions gave her the courage to speak up because she felt supported by her peers. This statement shows how the

combination of peer collaboration and teacher reinforcement reduced anxiety and increased willingness to participate. found that addressing test anxiety through effective teaching strategies can lead to improved academic performance in elementary students. Employing cooperative methods that minimize pressure and promote collaboration may reduce evaluation anxiety and, in turn, enhance academic outcomes.¹⁴

Teacher observations further supported these perspectives. The PAI teacher reported that the overall classroom atmosphere changed significantly after the implementation of the model. Students who were usually passive began to contribute more actively. The teacher noted that reinforcement strategies such as verbal praise, symbolic rewards (e.g., stars), and mild corrective tasks were particularly effective in motivating students. These strategies encouraged students not only to achieve better academically but also to display more positive learning behaviors.

Type cooperative learning model gallery walk It is thought to be able to bridge learning problems because it is more interesting, fun, meaningful, and creative, and student learning outcomes can improve. This learning model can overcome students' learning motivation who tend to be low, get bored quickly, and do not like challenges, than can accommodate the habits of students who are often found not like serious learning situations, are limited by strict rules and burdensome assignments, and have excessive energy in students with a kinesthetic learning style can be managed well to be more productive.¹⁵

Overall, the interview data confirmed that the integration of cooperative learning with reinforcement principles not only improved academic achievement, as shown in the quantitative results, but also transformed the classroom into a more engaging, supportive, and participatory environment. The students' testimonies and the teacher's reflections highlight the affective and social dimensions of learning that accompanied cognitive gains, showing that the intervention had a holistic impact on students' educational experience.

The integration of quantitative and qualitative findings provides a more comprehensive picture. The significant improvement in test scores aligns with the observed increase in motivation, confidence, and participation. In other words, the rise in academic achievement was not only due to cognitive learning but also supported by affective and social changes. This synergy suggests that cooperative learning created the conditions for collaboration and peer interaction, while reinforcement provided the motivational energy necessary for sustained engagement. More specifically, cooperative structures such as group

¹⁴ Natasha K Segool et al., "Heightened Test Anxiety Among Young Children: Elementary School Students' Anxious Responses to High-stakes Testing," *Psychology in the Schools* 50, no. 5 (2013): 489–99, <https://doi.org/10.1002/pits.21689>.

¹⁵ Wirman Hanizon, Fitriani Fitriani, and Helena Helena, "Activities and Learning Results of Islamic Education Through the Implementation of Cooperative Type Models Gallery Walk at Elementary School," *Ablussunnah Journal of Islamic Education* 1, no. 1 (2022): 1–8, <https://doi.org/10.58485/jie.v1i1.91>.

accountability, positive interdependence, and peer support facilitate opportunities for immediate reinforcement. These reinforcement cycles gradually internalize behavioral norms, transforming external motivation into internalized values that underpin both cognitive mastery and affective growth.¹⁶ Thus, the interaction between reinforcement and cooperation mechanisms not only enhances knowledge acquisition but also builds students' self-efficacy, empathy, and moral awareness.

The findings of this study resonate with a number of previous works that examined either cooperative learning or behaviorist reinforcement in educational contexts. In the field of Islamic Education specifically, reported that cooperative learning significantly enhanced student engagement in PAI classrooms,¹⁶ while found that cooperative strategies improved students' comprehension and retention of religious materials. Similarly, demonstrated that the Jigsaw model not only increased academic achievement but also strengthened students' character development, highlighting the social and moral dimensions of Islamic Education. These findings are consistent with the present study, where cooperative learning supported by reinforcement led to improvements in both cognitive and affective domains.¹⁷

The application of behaviorist learning theory in Islamic Religious Education (ISE) learning is crucial. As explained in Ivan Pavlo's opinion regarding the conditioning paradigm, behavioral change can be achieved through frequent stimulation and repetition. Therefore, positive behavioral changes in students can be achieved through ISE learning, where teachers provide stimulation and repetition of the material being taught.¹⁸

International and cross-disciplinary research also provides supporting evidence. Through a meta-analysis, concluded that cooperative learning methods consistently improved students' motivation and learning outcomes across various subjects, while documented similar positive effects in elementary education more broadly. These studies reinforce the view that cooperative learning is a versatile and effective pedagogical approach that can be adapted across subjects and contexts, including Islamic Education.

On the other hand, several studies have highlighted the effectiveness of reinforcement strategies alone. For example, found that the systematic use of reinforcement in primary school settings led to improved discipline and motivation, while examined how behaviorist approaches, particularly Bandura's

¹⁶ Pebriana Putri, "Analisis Penerapan Model Pembelajaran Cooperative Learning Untuk Meningkatkan Hasil Belajar Pendidikan Agama Islam," *Az-Zarnuji: Journal of Islamic Education* 1, no. 2 (2023): 46–50.

¹⁷ Nurul Purnama Sari, Syaripudin Basyar, and Agus Jatmiko, "The Jigsaw Cooperative Learning Model in Islamic Religious Education to Develop Students' Emotional Intelligence," *Bulletin of Science Education* 4, no. 1 (2024): 122–34.

¹⁸ Muhammad Fadhil Alghi Fari Majid and Suyadi Suyadi, "Penerapan Teori Belajar Behavioristik Dalam Pembelajaran Pai Di SDN Nogopuro Yogyakarta," *Jurnal Pai Raden Fatah* 2, no. 2 (2020): 148–55, <https://doi.org/10.19109/pairf.v2i2.4443>.

concepts of modeling and reinforcement, could increase students' motivation and outcomes.¹⁹ These works affirm the power of reinforcement but often treat it as a stand-alone strategy, without embedding it into collaborative or student-centered approaches. This innovation is particularly beneficial for creating inclusive learning environments where all students, including those with disabilities, can thrive. Boşnak and Calleja Boşnak & Calleja (2023) indicated that cooperative learning strategies facilitate shared experiences among diverse learners, enhancing their acceptance and participation within academic settings.²⁰

The novelty of the present study lies in its integration of two pedagogical paradigms that have often been studied separately. While prior studies generally explored these frameworks in isolation, this research demonstrates their synergistic potential. Cooperative learning established a social environment conducive to interaction and peer support, whereas reinforcement provided the motivational drivers that sustained active engagement. This integration addresses the limitations of each approach when applied alone: cooperative learning without reinforcement may lead to unequal participation, while reinforcement without collaboration may produce compliance rather than genuine engagement. Finally, this integrated pedagogical framework allows for the development of critical thinking and problem-solving skills. emphasized the importance of collaborative problem-solving in educational settings, illustrating how integrated cooperative learning approaches can foster higher-order thinking skills necessary for navigating complex tasks.²¹

More importantly, this study deepens theoretical understanding by explaining *how reinforcement mechanisms operate within cooperative group dynamics*. In the early stages of group learning, extrinsic reinforcement serves as an external stimulus that shapes behavioral consistency and participation. Within the cooperative setting, these extrinsic cues are amplified through social interaction: students not only seek teacher approval but also derive satisfaction from peer recognition and group success. Over time, repeated cycles of reinforcement within a collaborative context foster *internalization*, where students begin to value participation and mastery intrinsically rather than merely for external rewards. This transition reflects a shift from *controlled motivation* to *autonomous motivation*, as described in Deci and Ryan's Self-Determination Theory.

This theoretical integration illustrates that behaviorist and constructivist paradigms are not inherently contradictory. Behaviorism provides

¹⁹ Minati Rina Hardiyana and Maemonah Maemonah, "The Effect of the Application of Albert Bandura's Behaviorism Theory on the Motivation and Learning Outcomes," *Jurnal Fundadikdas (Fundamental Pendidikan Dasar)* 6, no. 2 (2023): 93–110.

²⁰ Özge Boşnak and Prof. Colin Calleja, "Cooperative, Collaborative, and Related Strategies' Effect on Learning in Children With Autism," *Global Journal of Medical Research*, 2023, 45–55, <https://doi.org/10.34257/gjmravol23is3pg45>.

²¹ Dan Kohen-Vacs, Gila Kurtz, and Ilona Buchem, "Integrating Social Robot in a Jigsaw Cooperative Activity: Insights From an International Workshop With Students From Universities in Germany and Israel," *Ubiquity Proceedings*, 2023, <https://doi.org/10.5334/uproc.84>.

the structure and motivational scaffolding through reinforcement, while constructivism creates the social and cognitive environment necessary for meaning-making. In this way, reinforcement operates not as mere external control but as a catalyst that triggers deeper engagement and self-regulation within group collaboration.

From an international perspective, this finding resonates with broader educational theories emphasizing the interaction between social learning, motivation, and collaboration. For example, found that socially mediated motivation is crucial in sustaining engagement in collaborative classrooms, while highlighted that cooperative learning environments naturally facilitate the transition from extrinsic to intrinsic motivation through peer validation and shared goals. The alignment of these global perspectives with the findings of the present study demonstrates that the behaviorist-cooperative integration contributes not only to Islamic Education but also to the wider discourse on effective learning design in the 21st century.

Empirically, the quantitative and qualitative results jointly affirm this theoretical synthesis. The significant gain in posttest scores ($M = 78.53$, $SD = 7.00$) and large effect size (Cohen's $d = 1.75$) indicate substantial cognitive improvement, while interview data reveal affective and social transformation. Students expressed enjoyment and confidence in group discussions, and teachers observed higher participation and motivation. These results confirm that reinforcement embedded in cooperative structures promotes learning persistence, peer support, and moral development.

The study's practical implications are likewise significant. Teachers can apply reinforcement not as a controlling device but as an empowering strategy to sustain motivation and engagement. When embedded in cooperative learning, these reinforcement cycles become socialized, encouraging mutual accountability and shared success. At the policy level, this supports the design of professional development programs that integrate behaviorist and constructivist insights to promote holistic, student-centered Islamic Education.

In conclusion, this study advances the dialogue between behaviorism and constructivism by showing that extrinsic reinforcement, when embedded in cooperative group dynamics, can evolve into intrinsic motivation that sustains learning. It also extends international scholarship by demonstrating that these theoretical principles hold across cultural and disciplinary contexts. The integration of reinforcement and cooperation thus provides a robust pedagogical framework that enhances both cognitive and affective domains, reaffirming the relevance of classical learning theories in contemporary education.

Descriptive statistics revealed that the mean pretest score was 64.20 ($SD = 8.00$), while the mean posttest score increased to 78.53 ($SD = 7.00$). The mean difference was 14.33. A paired-samples t-test confirmed that this difference was statistically significant, $t(29) = 9.52$, $p < .001$. The effect size, measured by Cohen's d , was 1.75, which represents a large effect. These findings

confirm that the intervention had a substantial impact on students' learning outcomes.

The 10-item attitude questionnaire designed to measure students' motivation and perception of learning demonstrated good internal consistency, with Cronbach's $\alpha = 0.85$. Item-total correlations ranged from 0.32 to 0.68, exceeding the threshold of 0.30, indicating that all items were reliable and valid. This suggests that students consistently expressed more positive attitudes towards PAI after the intervention.

The findings of this study clearly demonstrate that the integration of behaviorist learning theory and cooperative learning strategies has a significant positive impact on students' outcomes in Islamic Education. The improvement in test scores from pretest to posttest, with a large effect size (Cohen's $d = 1.75$), confirms that the approach not only improved knowledge acquisition but also enhanced learning motivation and participation.

From a theoretical perspective, these results are consistent with the core assumptions of behaviorism, which emphasizes the role of reinforcement in shaping behavior. The use of verbal praise and symbolic rewards (such as stars and points) effectively encouraged students to engage in classroom activities. At the same time, the cooperative learning model provided a supportive environment in which reinforcement could be delivered not only by the teacher but also through peer interaction. This dual reinforcement mechanism helped sustain students' motivation and learning persistence.

The implications of these findings are both practical and theoretical. Practically, PAI teachers can design lesson plans that intentionally integrate reinforcement techniques into cooperative group tasks, thereby creating a more dynamic and engaging learning environment. Theoretically, this study contributes to bridging the gap between behaviorist and constructivist perspectives by demonstrating that reinforcement (a behaviorist principle) can enhance learning in cooperative, student-centered settings (a constructivist practice). This challenges the often-assumed dichotomy between the two paradigms and suggests they can be complementary rather than contradictory.

Nevertheless, this study also has limitations. The sample size was limited to one school and one grade level, which restricts the generalizability of the findings. In addition, the data were collected within a relatively short intervention period, which makes it difficult to evaluate the long-term sustainability of the observed improvements. Future studies should replicate this approach across different schools, subjects, and age groups, and may also compare the effectiveness of behaviorist-cooperative integration with other learning theories such as cognitivism or humanism.

This study provides comprehensive evidence that the integration of behaviorist learning theory with cooperative learning models significantly improves both the academic and affective outcomes of students in Islamic Education at the elementary level. The quantitative findings revealed a substantial increase in achievement scores, with statistical analysis confirming

that the improvement was not only significant but also educationally meaningful. The qualitative findings enriched this perspective by illustrating how students experienced greater motivation, confidence, and participation, while teachers observed a clear transformation in classroom dynamics. Together, these results demonstrate that effective learning is not solely a matter of cognitive mastery but is also deeply influenced by affective and social factors.

The study further highlights the importance of creating a balanced instructional environment where reinforcement strategies sustain motivation, and cooperative structures encourage collaboration and peer support. By aligning behaviorist reinforcement with the collaborative ethos of cooperative learning, this research shows that learning outcomes are strengthened at multiple levels, knowledge acquisition, skill development, and character formation. Such integration is especially relevant in the teaching of Islamic Education, where the goal extends beyond academic success to include the nurturing of moral and spiritual values.

Conclusion

The findings of this study affirm that integrating behaviorist learning theory with cooperative learning significantly improves students' outcomes in Islamic Education, as shown by the increase in achievement scores and the growth of motivation, confidence, and collaboration. This integration demonstrates that reinforcement strategies are more effective when embedded in group-based learning, creating an engaging and supportive classroom environment. For teachers and schools, the results highlight the importance of designing lesson plans and professional development programs that connect theoretical principles with practical strategies. Theoretically, the study contributes to bridging behaviorism and constructivism by showing that reinforcement can enhance cooperative structures, producing both cognitive and affective benefits. Although limited by sample size and duration, the research points to the potential of applying this model across broader contexts and comparing it with other learning theories such as cognitivism or humanism. Ultimately, the study provides both practical guidance for educators and theoretical contributions to pedagogy, underscoring the value of integrative approaches in shaping academically competent, motivated, and socially responsible learners.

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