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# Creative Strategies of Teachers in Teaching PAI and Their Implications on Students' Learning Interest

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Abstract: Islamic Religious Education (PAI) plays a crucial role in shaping students' moral values, spiritual awareness, and ethical behavior. However, maintaining student interest in PAI remains a challenge due to traditional teaching methods, lack of engagement, and competing distractions. This study aims to examine the role of teacher creativity in teaching PAI and its impact on student interest. Using a Systematic Literature Review (SLR) approach, relevant studies from peer-reviewed journals, conference papers, and educational reports published between 2014 and 2024 were analyzed. The review focused on identifying creative teaching strategies, evaluating their effectiveness, and understanding their influence on student motivation and engagement. Findings indicate that strategies such as project-based learning, role-playing, interactive discussions, and multimedia integration significantly enhance student interest and participation. The use of technology further supports personalized and interactive learning experiences, enabling students to connect religious concepts with real-life applications. Despite challenges including limited resources, teacher preparedness, and external distractions, creative teaching consistently promotes better learning outcomes, moral development, and ethical behavior. The study highlights the importance of fostering teacher creativity, integrating innovative methods, and providing institutional support to enhance the quality and effectiveness of PAI in secondary schools. These insights offer practical recommendations for educators and policymakers seeking to improve student engagement and the internalization of Islamic values through creative teaching approaches.

**Keywords:** Islamic Religious Education, Teacher Creativity, Student Interest

#### INTRODUCTION

Education is a fundamental process in shaping the character and knowledge of students(Saryanto et al., 2023; Umah, 2016). In particular, religious education plays a vital role in developing moral values, spiritual awareness, and ethical behavior among adolescents. Islamic Religious Education (PAI) is not only aimed at conveying knowledge about Islam but also at internalizing values such as honesty, discipline, and empathy. The effectiveness of this education largely depends on the ability of teachers to deliver content in ways that engage and motivate students(McLaughlin et al., 2005; Xiong, 2025). In modern educational settings, where students are exposed to diverse information sources and digital platforms, traditional methods alone may



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no longer be sufficient(Alenezi et al., 2023; Munna et al., 2024). Therefore, innovative and creative teaching strategies have become crucial to ensure that students remain interested and actively participate in the learning process.

Creativity in teaching is considered an essential factor in stimulating student engagement and learning outcomes(Basri et al., 2024; Yuan et al., 2019). Teachers who employ creative strategies often use varied methods, such as interactive discussions, role-playing, multimedia, and project-based activities(Saad & Zainudin, 2024; Wang et al., 2017). These approaches not only make learning more enjoyable but also help students connect religious concepts to real-life experiences(Papakostas, 2024). In Islamic Religious Education, creativity allows teachers to present abstract concepts like faith, worship, and morality in ways that are understandable and relatable(Guna et al., 2024; Riza et al., 2025). Furthermore, creative teaching strategies contribute to fostering critical thinking, problem-solving, and moral reasoning skills among students. Such skills are particularly important in shaping adolescents' decision-making and behavior in both personal and social contexts.

Student interest is a key indicator of successful learning(Kahu et al., 2017; LaForce et al., 2017). When students are genuinely interested in a subject, they tend to pay more attention, participate actively, and retain knowledge more effectively(Astin, 2014). In the context of PAI, high student interest not only improves academic performance but also enhances the internalization of Islamic values. Engaged students are more likely to practice ethical behavior, participate in religious activities, and reflect on moral lessons in daily life. Conversely, low motivation and lack of interest can lead to superficial understanding, disengagement, and poor application of learned values. Therefore, understanding the factors that influence student interest in PAI, especially the role of teacher creativity, becomes a critical area of study.

Despite its importance, many schools face challenges in maintaining student interest in Islamic Religious Education. Traditional teaching methods, such as lectures and rote memorization, often fail to capture students' attention in the digital age. Moreover, some teachers may lack the training or resources to implement creative strategies effectively. This situation can result in decreased motivation, limited participation, and superficial learning outcomes. Students may perceive PAI as monotonous or irrelevant, which undermines both academic achievement and



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the internalization of moral values. The gap between curriculum objectives and student engagement presents a significant challenge for educators seeking to develop meaningful and impactful religious education programs.

In addition, the rapid development of technology and access to diverse media have created new expectations among students for interactive and stimulating learning experiences. Students increasingly prefer learning environments that are engaging, collaborative, and relatable to their daily lives. Teachers who are unable to adapt to these changing expectations risk losing students' attention and interest. Furthermore, societal changes, peer influence, and the presence of various entertainment platforms may compete with formal education, making it even more difficult for PAI teachers to maintain student motivation. Addressing these challenges requires the identification and implementation of effective creative strategies that resonate with modern students.

The research conducted by Saifudin, Mispani, and Setiawan (2024) shows that students' learning interest can increase significantly through the implementation of interactive learning strategies that involve active student participation. The study also found that the use of discussion methods, educational games, and varied learning media can create a more engaging, enjoyable, and motivating learning environment for students(Saifudin et al., 2024). The research conducted by Panjaitan, Riski (2024) shows that Islamic education teachers at SMP Muhammadiyah 7 Medan use a targeted guidance strategy through the identification of students' interests and talents, as well as providing continuous mentoring to improve their achievements. The study also found that collaboration with parents and the provision of religion-based extracurricular activities can encourage the optimal development of students' potential(Panjaitan, 2024).

The research written by Putri, Adzqi Amalia, et al. (2025) shows that the creativity of PAI teachers in utilizing learning media in the Merdeka Curriculum plays an important role in enhancing student engagement and understanding. The study also found that the use of digital media, contextual projects, and interactive learning resources can create more varied, innovative, and student-centered learning(Putri et al., 2025). The research conducted by Abbas, Suriani, and Muchlis (2021) indicates that character development of students based on Islamic Education (PAI) in schools is carried out through teachers' role modeling, habituation of Islamic values, and



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strengthening of religious culture. The study also found that the integration of PAI values in learning activities and school activities can improve students' morality, discipline, and responsibility(Abbas et al., 2021).

Despite numerous studies on creative teaching and student motivation, limited research has specifically investigated the integration of multiple creative strategies in PAI and their direct impact on student interest in modern secondary school contexts. Most prior research focuses either on general education or single-method interventions, leaving a gap in understanding comprehensive creative approaches tailored to Islamic Religious Education. This study aims to fill that gap by examining how a combination of innovative strategies—such as multimedia integration, project-based learning, and interactive discussions—affects students' motivation and engagement in PAI. The novelty of this research lies in linking teacher creativity with measurable student interest in the context of contemporary SMA learning environments.

The main objective of this study is to investigate the role of teacher creativity in enhancing student interest in Islamic Religious Education. Specifically, the study aims to identify the creative strategies employed by teachers, analyze their effectiveness in engaging students, and evaluate the impact on student motivation and learning outcomes. Additionally, the research seeks to provide practical recommendations for teachers and policymakers on implementing innovative teaching methods in PAI. By achieving these objectives, the study contributes to improving both the quality of religious education and the internalization of moral and spiritual values among students.

#### **METHOD**

This study employs a qualitative research design in the form of a Systematic Literature Review (SLR)(Jispendiora et al., 2023). SLR is a structured and rigorous method used to identify, evaluate, and synthesize existing research studies in order to answer specific research questions. By using this approach, the study systematically examines previous findings on creative teaching strategies in Islamic Religious Education (PAI) and their effects on student interest and motivation. The goal is to provide a comprehensive understanding of effective creative strategies and their impact on student engagement in secondary school contexts. The objectives of this SLR study are threefold. First, it aims to identify the creative teaching strategies employed by PAI teachers in secondary schools. Second, it seeks to examine the impact of these strategies on students' learning



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interest and motivation. Third, it intends to synthesize findings from previous studies and highlight gaps in the literature to guide future research. These objectives ensure that the study provides both a detailed review of existing practices and actionable insights for educators and researchers.

Data for this study were collected from peer-reviewed journal articles, conference papers, and educational reports related to PAI, creative teaching, and student motivation(Luthfiyah, 2017). The primary databases consulted include Scopus, Google Scholar, ERIC (Education Resources Information Center), and ResearchGate. These sources were chosen to ensure the inclusion of high-quality and relevant studies from both international and local contexts. To maintain focus and quality, inclusion and exclusion criteria were applied. Studies included were published within the last ten years (2014–2024), written in English or Indonesian, and focused on Islamic Religious Education, creative teaching methods, and student engagement. Studies that did not focus on PAI, were unrelated to secondary education, or lacked sufficient methodological quality were excluded from the review.

The search strategy employed keywords and Boolean operators to identify relevant literature. Examples of search strings included "Creative teaching strategies" AND "Islamic Religious Education," "Teacher creativity" AND "student motivation" AND "PAI," and "Innovative learning" AND "Islamic education" AND "secondary school." This systematic approach ensured that all relevant studies were captured for analysis. Relevant data were systematically extracted from selected studies, including information about the author and year of publication, research context (such as country and school level), methods used, types of creative strategies, and reported effects on student interest and learning outcomes. This structured extraction facilitated a consistent and comparable analysis across studies.

The extracted data were analyzed qualitatively using thematic synthesis, which involved coding and categorizing creative strategies, identifying patterns and common outcomes related to student interest, comparing findings across studies to evaluate effectiveness and limitations, and highlighting gaps for further research. This process allowed for a comprehensive synthesis of evidence regarding teacher creativity in PAI.To ensure the validity and reliability of the review, several measures were applied. Triangulation of sources was conducted by cross-checking multiple studies to confirm findings. Only studies that had undergone peer review were selected



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to ensure methodological rigor. Additionally, the entire process, including search strategies, inclusion and exclusion decisions, and data extraction, was transparently documented to maintain accountability and reproducibility.

#### **RESULT AND DISCUSSION**

#### 1. Creative Teaching Strategies in PAI

The first key finding from the SLR indicates that teachers employ a variety of creative strategies in Islamic Religious Education. Strategies such as role-playing, project-based learning, multimedia integration, and interactive discussions are commonly reported. These methods aim to make abstract religious concepts more tangible and relatable for students(Hilman & others, 2025). Several studies emphasize that project-based activities allow students to apply moral and ethical lessons in real-life contexts, enhancing understanding and engagement. Additionally, multimedia tools, including videos and digital simulations, are found to increase student attention and interest, particularly among adolescents who are accustomed to digital environments. Overall, creative strategies provide diverse learning experiences that cater to different student learning styles

The effectiveness of these strategies is supported by research showing increased cognitive and affective engagement. For instance, role-playing allows students to practice ethical decision-making, while interactive discussions encourage critical thinking about religious principles. Project-based learning facilitates collaboration and develops problem-solving skills, aligning with 21st-century competencies. The studies consistently suggest that students exposed to multiple creative methods demonstrate higher motivation and enthusiasm toward PAI lessons compared to traditional lecture-based approaches. Teachers' ability to combine methods effectively is critical for maximizing these benefits.

Another aspect highlighted is the integration of technology to support creative strategies. Learning management systems, educational videos, and digital quizzes complement traditional activities and provide immediate feedback. Studies reveal that such integration allows teachers to personalize learning and address diverse student needs. Moreover, the use of multimedia increases the clarity of complex topics like fiqh, akhlaq, and Quranic interpretation. Therefore,



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the combination of creativity and technology is increasingly seen as essential in modern PAI classrooms.

Despite the evident benefits, challenges in implementing creative strategies exist(Radomska et al., 2023). Teachers often face limitations such as insufficient training, lack of resources, and time constraints. These factors may prevent full utilization of innovative methods, leading to inconsistent student engagement. Literature recommends professional development programs to enhance teachers' skills in designing and delivering creative PAI lessons.

In conclusion, the SLR findings indicate that creative teaching strategies are diverse, effective, and adaptable. When applied thoughtfully, they improve student engagement, understanding, and internalization of Islamic values. However, effective implementation depends on teacher competence, school support, and availability of appropriate resources, highlighting the need for systemic support in enhancing PAI teaching quality.

### 2. Impact of Teacher Creativity on Student Interest

The second finding focuses on the relationship between teacher creativity and student interest in PAI. Studies consistently report that higher teacher creativity leads to increased student motivation and enthusiasm. Creative teaching strategies stimulate curiosity and encourage students to participate actively in learning activities(Rahayuningsih et al., 2023). For example, project-based tasks enable students to connect religious teachings with real-life problems, fostering meaningful learning experiences. Students exposed to role-playing and interactive discussions tend to show higher attentiveness and a more positive attitude toward the subject.

Research also indicates that student interest is closely linked to perceived relevance and enjoyment of lessons. When teachers employ creative strategies, lessons are often perceived as more engaging and applicable, enhancing intrinsic motivation. Additionally, multimedia-supported instruction caters to visual and auditory learning preferences, further increasing attention and comprehension. Studies emphasize that motivated students are more likely to retain knowledge, practice ethical behavior, and participate in religious activities.



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Another aspect of teacher creativity is the ability to adapt strategies to student needs and learning styles. Personalized approaches, such as differentiated projects or guided discussions, help maintain high levels of engagement. Literature highlights that flexible and responsive teaching fosters a classroom environment conducive to learning, collaboration, and reflection. This adaptability is a hallmark of creative teachers who successfully nurture student interest.

However, some studies note challenges in sustaining student interest over time. External factors, including peer influence, distractions from digital media, and competing curricular demands, can diminish motivation. Teachers must continuously innovate and refresh learning activities to maintain engagement. The literature recommends integrating student feedback and contemporary topics to ensure relevance.

Overall, evidence suggests that teacher creativity directly influences student interest, motivation, and participation in PAI. Creative teachers not only convey knowledge effectively but also inspire students to internalize Islamic values and practice ethical behavior consistently.

#### 3. Integration of Technology and Innovative Methods

The third sub-theme identified in the literature emphasizes the integration of technology in creative teaching for PAI. Studies highlight that combining digital tools with project-based, inquiry-based, or discussion-driven methods significantly enhances learning outcomes(J Dayoc, 2025). Multimedia presentations, educational videos, interactive quizzes, and learning management systems provide students with engaging and diverse experiences. These tools also allow for self-paced learning, enabling students to review materials according to their understanding and interests.

Research shows that technology integration complements teacher creativity by extending classroom interaction beyond traditional methods. For example, digital simulations of Islamic rituals or animated stories of prophets help students visualize complex concepts. Additionally, online discussion forums facilitate collaborative learning, where students can debate ethical dilemmas and share reflections on spiritual practices. The literature emphasizes that such digital integration strengthens cognitive, affective, and social dimensions of learning.

Teachers who effectively combine technology with innovative strategies are reported to achieve higher student engagement and satisfaction. Personalized learning paths powered by



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digital tools support differentiated instruction, catering to students' diverse needs and abilities. Studies suggest that technology-enhanced lessons foster self-directed learning, critical thinking, and ethical reasoning among students.

Despite its potential, implementing technology in PAI faces challenges, including limited access to devices, internet connectivity issues, and teachers' varying digital literacy levels. Literature recommends structured training programs, resource allocation, and institutional support to overcome these barriers.

In summary, technology serves as a powerful enabler for creative teaching in PAI. Its integration with innovative strategies strengthens student engagement, promotes understanding, and enhances the internalization of moral and spiritual values. Teachers' digital competence is crucial to leveraging these benefits effectively.

#### 4. Challenges, Limitations, and Research Gaps

.While studies confirm the benefits of creative teaching strategies, there are recurring issues related to teacher preparedness, resource availability, and time management. Many teachers lack sufficient training to design and implement diverse methods effectively. Limited access to multimedia resources and classroom support can further hinder creativity in practice.

Another challenge is sustaining long-term student interest. While creative methods initially engage students, maintaining consistent motivation requires continuous innovation and adaptation. Peer influence, competing extracurricular activities, and digital distractions also affect student engagement. Literature suggests that integrating student feedback and culturally relevant materials may help overcome these challenges.

Research gaps identified include a lack of longitudinal studies examining the sustained impact of creative teaching on student interest and spiritual development. Additionally, few studies combine multiple innovative strategies in a holistic approach to PAI. Most research focuses on individual techniques rather than integrated frameworks.

Furthermore, limited studies explore the impact of technology-assisted creative teaching on students' ethical and spiritual internalization. There is a need for empirical studies assessing how blended learning, multimedia, and digital platforms influence both motivation and moral behavior in Islamic education contexts.



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Overall, while teacher creativity has a clear positive effect on student interest and learning outcomes, further research is needed to develop comprehensive models, integrate technology effectively, and assess long-term impacts on moral and spiritual development.

#### **CONCLUSION**

The findings of this study confirm a strong connection between teacher creativity and the enhancement of students' motivation, engagement, and understanding in Islamic Religious Education (PAI). Creative instructional strategies such as project-based learning, role-playing, interactive discussions, and multimedia integration prove effective in making religious concepts more meaningful and accessible to learners. Technology-supported approaches further strengthen personalized and interactive learning, encouraging both cognitive mastery and spiritual internalization. Despite challenges related to limited resources, teacher readiness, and external distractions, creative teaching consistently contributes to students' moral development and ethical behavior. These results highlight the need for educational policies and institutional practices that actively support teacher creativity through professional development, access to learning resources, and innovation-friendly school environments, thereby improving the overall quality and effectiveness of PAI in secondary schools.

#### **REFERENCE**

- Abbas, A., Suriani, S., & Muchlis, M. (2021). Strategy for shapeing the character of students based on PAI in school. *Linguistics and Culture Review*, 5(S1), 867–877.
- Alenezi, M., Wardat, S., & Akour, M. (2023). The need of integrating digital education in higher education: Challenges and opportunities. *Sustainability*, *15*(6), 4782. https://doi.org/https://doi.org/10.3390/su15064782
- Astin, A. W. (2014). Student involvement: A developmental theory for higher education. In *College student development and academic life* (pp. 251–262). Routledge.
- Basri, N., Salija, K., Baa, S., & Muhammad, A. P. A. (2024). Unlocking creativity and engagement in students through project-based learning. *Journal of Hunan University Natural Sciences*, 51(1).
- Guna, B. W. K., Yuwantiningrum, S. E., & others. (2024). Building Morality and Ethics Through Islamic Religious Education In Schools. *IJGIE* (*International Journal of Graduate of Islamic Education*), 5(1), 14–24.
- Hilman, C., & others. (2025). Digital-based {\.I}slamic religious education: a new orientation in enhancing student engagement and spiritual understanding. *The Journal of Academic Science*, 2(1), 53–65.
- J Dayoc, S. (2025). Teaching Pedagogies in Social Studies: Narrations of Junior High School Teachers. *International Journal of Innovative Science and Research Technology*, 10(8),



ISSN(Online): XXXX-XXXX Vol 1 Nomor 2 Oktober 2025

https://journal.berkahopungpungan.com/index.php/IJIES Email: ijies.bumdesberkaho@gmail.com

1051-1055.

- Jispendiora, J., No, V., Karakter, P., Sekolah, D. I., Norlita, D., Nageta, P. W., & Faradhila, S. A. (2023). *Systematic Literature Review (Slr): Pendidikan Karakter Di Sekolah Dasar*. 2(1).
- Kahu, E., Nelson, K., & Picton, C. (2017). Student interest as a key driver of engagement for first year students. *Student Success*, 8(2), 55–66.
- LaForce, M., Noble, E., & Blackwell, C. (2017). Problem-based learning (PBL) and student interest in STEM careers: The roles of motivation and ability beliefs. *Education Sciences*, 7(4), 92.
- Luthfiyah, M. F. dan. (2017). *Metode Penelitian: Penelitian Kualitatif, tindakan Kelas dan Studi Kasus*. CV. Jejak.
- McLaughlin, M., McGrath, D. J., Burian-Fitzgerald, M. A., Lanahan, L., Scotchmer, M., Enyeart, C., & Salganik, L. (2005). Student content engagement as a construct for the measurement of effective classroom instruction and teacher knowledge. *Washington, DC: American Institutes for Research*.
- Munna, M. S. H., Hossain, M. R., & Saylo, K. R. (2024). Digital education revolution: Evaluating LMS-based learning and traditional approaches. *Journal of Innovative Technology Convergence*, 6(2).
- Panjaitan, R. (2024). The PAI Teacher's Strategy In Developing Student Achievement And Talents At SMP Muhammadiyah 7 Medan. *Educate: Jurnal Ilmu Pendidikan Dan Pengajaran*, 3(3), 160–174.
- Papakostas, C. (2024). Faith in Frames: Constructing a Digital Game-Based Learning Framework for Religious Education. *Teaching Theology & Religion*, 27(4), 137–154.
- Putri, A. A., Hasanah, U., Asiah, N., Hijriyah, U., & Jalaluddin, J. (2025). PAI Teacher's Creativity Strategy in Utilizing Learning Media Based on Independent Curriculum. *Syaikhuna: Jurnal Pendidikan Dan Pranata Islam*, 16(01), 41–55.
- Radomska, J., Hajdas, M., Wołczek, P., & Glinka, B. (2023). Wide open? Creative industries and open strategizing challenges. *International Journal of Management and Economics*, 59(2), 117–136.
- Rahayuningsih, S., Ikram, M., & Indrawati, N. (2023). Learning to promote students' mathematical curiosity and creativity. *Uniciencia*, 37(1), 106–118.
- Riza, M., ANwar, M., & Sutomo, M. (2025). Creativity in Islamic Religious Education: A Qualitative Study on the Development and Implementation of Digital Comics in Primary Schools. *ATTADIB*, 9(2), 262–274.
- Saad, A., & Zainudin, S. (2024). A review of teaching and learning approach in implementing Project-Based Learning (PBL) with Computational Thinking (CT). *Interactive Learning Environments*, 32(10), 7622–7646.
- Saifudin, S., Mispani, M., & Setiawan, D. (2024). The Teacher's Efforts in Improving Students'



ISSN(Online): XXXX-XXXX Vol 1 Nomor 2 Oktober 2025

https://journal.berkahopungpungan.com/index.php/IJIES Email: ijies.bumdesberkaho@gmail.com

- Interest in Learning through Interactive Learning Strategies. *International Journal on Advanced Science, Education, and Religion*, 7(2), 150–159.
- Saryanto, S., Retnaningsih, R., Nofirman, N., Muhammadiah, M., & Yuniwati, I. (2023). Analysis the role of school culture in shaping the personality and character of students. *Mudir: Jurnal Manajemen Pendidikan*, 5(2), 477–482.
- Umah, Y. C. (2016). Shaping The Character Of The Students Through Example Of Teachers. *EDUCATIO: Journal of Education*, *1*(2), 173–188.
- Wang, S.-M., Hou, H.-T., & Wu, S.-Y. (2017). Analyzing the knowledge construction and cognitive patterns of blog-based instructional activities using four frequent interactive strategies (problem solving, peer assessment, role playing and peer tutoring): A preliminary study. *Educational Technology Research and Development*, 65(2), 301–323.
- Xiong, X. (2025). Influence of teaching styles of higher education teachers on students 'engagement in learning: The mediating role of learning motivation. *Education for Chemical Engineers*, *51*, 87–102.
- Yuan, Y.-H., Wu, M.-H., Hu, M.-L., & Lin, I.-C. (2019). Teacher's encouragement on creativity, intrinsic motivation, and creativity: The mediating role of creative process engagement. *The Journal of Creative Behavior*, 53(3), 312–324.