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IMPLEMENTATION OF AN AUGMENTED REALITY-BASED MYSTERY BOX REWARD MEDIA TO ENHANCE STUDENTS' SELF-EFFICACY IN ISLAMIC RELIGIOUS EDUCATION LEARNING

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Abstract: Low self-efficacy among students in Islamic Religious Education is a major issue in Class X-E at SMAN 3 Tuban. This situation is characterized by low active participation, hesitation in answering questions, and a lack of confidence in one's own abilities. This study aims to describe the implementation of the Augmented Reality (AR)-based "Mystery Box Reward" media and analyze its impact on improving students' self-efficacy. The study employed a Classroom Action Research (CAR) design conducted in two cycles, each comprising planning, action, observation, and reflection stages. Data were collected through self-efficacy questionnaires, observations, interviews, and documentation. The research subjects consisted of 32 students who participated in the entire series of research activities. The results showed a significant increase in self-efficacy, from 65.47% in the pre-cycle to 77.94% in Cycle I and 88.75% in Cycle II. Classical mastery increased from 15.62% to 68.75% and reached 96.88% at the end of Cycle II. Observation data also showed an increase in active participation from 57.94% to 95.83%. These findings indicate that the *AR-based Mystery Box Reward* medium is effective in enhancing self-efficacy through positive reinforcement, engaging learning experiences, and higher student engagement.

Keywords: Self-Efficacy, Augmented Reality, Mystery Box Reward

Abstrak: Rendahnya self-efficacy peserta didik pada mata pelajaran Pendidikan Agama Islam menjadi permasalahan utama di kelas X-E SMAN 3 Tuban. Kondisi ini ditandai oleh rendahnya partisipasi aktif, keraguan dalam menjawab pertanyaan, dan kurangnya keyakinan terhadap kemampuan diri. Penelitian ini bertujuan mendeskripsikan penerapan media *Augmented Reality* (AR)-based *Mystery Box Reward* serta menganalisis pengaruhnya terhadap peningkatan self-efficacy peserta didik. Penelitian menggunakan desain Penelitian Tindakan Kelas (PTK) yang dilaksanakan dalam dua siklus, masing-masing meliputi tahap perencanaan, tindakan, observasi, dan refleksi. Data dikumpulkan melalui angket self-efficacy, observasi, wawancara, dan dokumentasi. Subjek penelitian terdiri atas 32 peserta didik yang mengikuti seluruh rangkaian kegiatan penelitian. Hasil penelitian menunjukkan adanya peningkatan self-efficacy yang signifikan, dari 65,47% pada pra-siklus menjadi 77,94% pada siklus I dan 88,75% pada siklus II. Ketuntasan klasikal meningkat dari 15,62% menjadi 68,75% dan mencapai 96,88% pada akhir siklus II. Data observasi juga menunjukkan peningkatan partisipasi aktif dari 57,94% menjadi 95,83%. Temuan ini menunjukkan bahwa media *AR-based Mystery Box Reward* efektif meningkatkan self-efficacy melalui penguatan positif, pengalaman belajar yang menarik, dan keterlibatan peserta didik yang lebih tinggi.

Kata Kunci: Keyakinan Diri, Realitas Tertambah, Mystery Box Reward

INTRODUCTION

Islamic Religious Education occupies a strategic position in the educational system as a fundamental instrument for cultivating spiritual, moral, and social values derived from Islamic teachings. Beyond serving as a subject that transmits religious knowledge, Islamic Religious Education functions as a transformative educational process aimed at developing individuals who possess intellectual competence, emotional maturity, spiritual awareness, and ethical responsibility. In this regard, Islamic Religious Education contributes significantly to the formation of holistic human beings capable of integrating religious values into their daily lives and social interactions (Latifah, 2023; Pasaribu & Pohan, 2024). Nevertheless, despite its central role in character formation, the implementation of Islamic Religious Education in schools continues to encounter various pedagogical challenges, particularly those related to student engagement and active participation during classroom learning activities.

One of the major obstacles frequently identified in Islamic Religious Education classrooms is the limited willingness of students to participate actively in the learning process. Although many students demonstrate adequate understanding of instructional content, they often hesitate to express opinions, answer questions, or engage in discussions. Such passivity not only reduces the effectiveness of classroom interaction but also hinders the achievement of learning objectives that require students to internalize religious values through active reflection and participation. This phenomenon suggests that the issue extends beyond cognitive mastery and involves psychological dimensions that influence students' learning behavior and academic engagement.

Among the psychological factors affecting student participation, self-efficacy has received considerable attention in educational research. Introduced within Albert Bandura's Social Cognitive Theory, self-efficacy refers to an individual's belief in their capability to organize and execute the actions required to achieve specific goals (Bandura & Evans, 2006). In educational settings, self-efficacy functions as a critical determinant of motivation, persistence, resilience, and academic performance. Students who possess strong self-efficacy tend to approach learning tasks with confidence, demonstrate perseverance when encountering difficulties, and actively seek opportunities to contribute during classroom activities. Conversely, students with low self-efficacy frequently doubt their abilities, avoid challenging tasks, and remain passive despite possessing sufficient knowledge or understanding of the subject matter (Ahmad & Yanti, 2025; Tarigan et al., 2024).

The importance of self-efficacy becomes particularly evident in contemporary educational environments

characterized by increasing demands for student-centered learning. Modern instructional approaches emphasize active participation, collaborative problem-solving, critical thinking, and reflective learning. However, these pedagogical expectations can only be realized when students believe in their own capacity to contribute meaningfully to the learning process. Consequently, strengthening self-efficacy is not merely a psychological concern but also a pedagogical necessity for improving educational outcomes and fostering meaningful learning experiences.

Preliminary observations and in-depth interviews conducted with the Islamic Religious Education teacher of class X-E at SMAN 3 Tuban in December 2025 revealed conditions consistent with this concern. Most students demonstrated attentiveness while listening to instructional explanations, yet only a small number were willing to ask questions, express opinions, or respond to teacher inquiries. According to the teacher, only a few students displayed sufficient confidence to speak publicly, whereas the majority appeared hesitant and uncomfortable when required to communicate their ideas in front of classmates. Furthermore, many students tended to seek answers from peers or wait for teacher guidance when confronted with challenging questions rather than attempting independent problem-solving. These behaviors represent common indicators of low self-efficacy and suggest the need for targeted educational interventions that address students' confidence in their own abilities.

This situation aligns with findings from previous studies indicating that low self-efficacy remains a significant barrier to effective learning in Islamic Religious Education (Neliwati et al., 2023; Awaliyani & Ummah, 2021). When students lack confidence in their academic capabilities, the learning process becomes less interactive, teachers receive insufficient feedback regarding student understanding, and opportunities for character development are diminished. Since self-efficacy influences how students think, feel, and behave in academic settings, interventions designed to enhance self-efficacy have the potential to improve both cognitive and affective learning outcomes simultaneously.

Various educational strategies have been proposed to strengthen self-efficacy, one of which involves the use of rewards as positive reinforcement. Rooted in Skinner's reinforcement theory, rewards function as stimuli that increase the likelihood of desired behaviors being repeated in the future (Nurdianto, 2025). Within educational contexts, rewards have been widely recognized as effective tools for enhancing learning motivation, promoting positive attitudes, increasing participation, and strengthening students' confidence in their abilities (Andriana & Rokmanah, 2023; Melinda, 2018; Sarah et al., 2022). Moreover,

Nurvitasari (2023) reported that varied reward systems contribute significantly to the development of self-efficacy by encouraging students to recognize and appreciate their own learning achievements.

Despite these benefits, conventional reward systems often fail to maintain long-term appeal among contemporary learners. Students belonging to Generation Z have grown up in digital environments characterized by interactive media, instant feedback, visual stimulation, and immersive experiences. As a result, traditional rewards may no longer generate sufficient excitement or engagement to influence learning behavior effectively (Rahma et al., 2025). This changing educational landscape necessitates innovative reward designs that align with the preferences and characteristics of digital-native learners.

To address this challenge, the present study introduces the concept of the Mystery Box Reward, an innovative reinforcement strategy that combines positive rewards with elements of uncertainty and surprise. Unlike conventional rewards, students do not know the contents of the reward before receiving it. This uncertainty stimulates curiosity and anticipation, psychological mechanisms known to increase motivation and behavioral engagement. The excitement generated by discovering unknown rewards encourages students to participate more actively in classroom activities and strive for opportunities to obtain the mystery box (Khasanah et al., 2025; Bela, 2025). By transforming rewards into engaging experiences rather than mere incentives, the Mystery Box Reward has the potential to influence both motivation and self-efficacy more effectively.

The effectiveness of this approach is further enhanced through the integration of Augmented Reality (AR) technology. AR is a digital technology that overlays virtual elements such as three-dimensional animations, interactive texts, and visual effects onto real-world environments in real time through mobile devices or tablets (Aditama et al., 2019). Educational researchers have increasingly recognized AR as a powerful instructional tool capable of transforming abstract concepts into concrete, interactive, and meaningful learning experiences (Indahsari & Sumirat, 2023; Dinarti, 2024). Through its immersive characteristics, AR promotes student engagement, stimulates curiosity, and increases learning enjoyment, thereby creating conditions that support positive psychological development.

In this study, AR technology is integrated into the Mystery Box Reward system through QR-code-enabled cards. Students who successfully earn rewards can scan the QR code using their smartphones to access three-dimensional animations and interactive visual congratulatory messages. This experience provides immediate and visually appealing recognition of achievement, reinforcing students' perceptions of

competence and accomplishment. From the perspective of Social Cognitive Theory, such experiences may strengthen multiple sources of self-efficacy simultaneously, including mastery experiences, social persuasion, emotional states, and observational learning.

A review of previous studies reveals several important research gaps. Akmal and Susanti (2019) investigated the effects of rewards in Islamic Religious Education but focused primarily on general learning outcomes rather than self-efficacy development. Azizah et al. (2024) examined the use of mystery box media to improve literacy and numeracy skills among elementary school students, not self-efficacy among senior high school learners. Likewise, Pratiwi (2020) explored the relationship between rewards and self-efficacy within the context of teacher work effectiveness rather than student learning. Although research on rewards, self-efficacy, mystery box media, and augmented reality has developed independently, no previous study has specifically investigated the implementation of an Augmented Reality-Based Mystery Box Reward to enhance students' self-efficacy in Islamic Religious Education at the senior high school level. This gap highlights the originality and significance of the present research.

Therefore, this study seeks to examine the implementation of an Augmented Reality-Based Mystery Box Reward in Islamic Religious Education learning at SMAN 3 Tuban and to analyze its effectiveness in enhancing students' self-efficacy. Theoretically, the study contributes to the growing body of knowledge concerning technology-enhanced positive reinforcement and self-efficacy development within Islamic educational contexts. Practically, the findings are expected to provide educators with innovative instructional strategies that accommodate the characteristics of digital-native learners while simultaneously strengthening students' confidence, engagement, and participation in learning activities. Through the integration of reward-based reinforcement, gamification elements, and augmented reality technology, this research offers a novel pedagogical approach capable of addressing psychological barriers that often limit student involvement in Islamic Religious Education classrooms.

METHOD

This study employed a Classroom Action Research (CAR) design using a qualitative approach supported by quantitative data. CAR was selected because the study aimed to systematically improve the quality of the learning process through planned actions implemented, observed, and reflected upon in iterative cycles (Pahleviannur et al., 2022). The research was conducted in two cycles, each consisting of four stages: planning, acting, observing, and reflecting.

The participants were 36 students of class X-E at SMAN 3 Tuban.

However, only 32 students were included in the final analysis because four students were absent during one or more stages of data collection. The study was carried out during the second semester of the 2024/2025 academic year.

Data were collected using four instruments. First, a self-efficacy questionnaire was developed based on Bandura's six self-efficacy dimensions. The instrument consisted of 30 items measured on a four-point Likert scale ranging from 1 (Strongly Disagree) to 4 (Strongly Agree), producing total scores between 30 and 120. Second, an observation sheet was used to assess six indicators of active participation, with scores ranging from 6 to 24. Third, semi-structured interview guides were administered to students (10 questions) and the Islamic Religious Education teacher (11 questions) to explore their experiences and perceptions regarding the implementation of the learning media. Fourth, documentation in the form of photographs and field notes was collected to support data triangulation.

The implementation procedure involved delivering Islamic Religious Education content enriched with Augmented Reality (AR) features. Students who actively participated by answering questions, expressing opinions, or presenting their work received QR-code reward cards. By scanning the cards with their smartphones, students accessed three-dimensional reward animations as part of the AR-based Mystery Box Reward. Teachers also provided verbal appreciation and conducted reflective discussions at the end of each session. Improvements in Cycle II included clearer reward criteria, more varied AR content, and simplified technical procedures.

Quantitative data were analyzed using percentage scores, class averages, classical mastery, and Normalized Gain (N-Gain) based on Hake (1999). The intervention was considered successful when at least 75% of students achieved a minimum score of 75%. Qualitative data were analyzed using the Miles and Huberman model, including data reduction, data display, and conclusion drawing.

RESULTS AND DISCUSSION

Description of the Implementation of AR-Based Mystery Box Reward Media

The implementation of AR-based Mystery Box Reward media was carried out over two cycles with gradual refinements based on the results of reflections from each cycle. Before the intervention began, the researcher conducted a pre-cycle involving the collection of baseline data (questionnaires and observations) as well as interviews with Islamic Education teachers to map the actual state of students' self-efficacy.

In Cycle I, instruction took place over three sessions. The first session focused on introducing the AR mechanism: students were shown how to scan QR codes, watched a 3D animation demonstration, and learned the criteria for earning rewards. Students' initial

responses were highly varied; the majority showed high enthusiasm, especially when watching the 3D animations appear on their phone screens, while a small minority still seemed confused by the technical procedures. In the second and third sessions, instruction was more structured: the teacher delivered the material through Q&A sessions and group discussions, while students who actively participated received QR cards as tickets to the Mystery Box.

Several technical challenges arose during Cycle I, including limited internet signal in some parts of the classroom, students' phones not supporting certain AR features, and time lost to technical troubleshooting. These challenges were addressed through a collaborative approach: students shared devices in small groups, the teacher provided written technical guidelines, and some students more proficient in technology were asked to assist their peers. Nevertheless, the classical mastery rate in Cycle I (68.75%) did not meet the minimum target of 75%, so the study proceeded to Cycle II. In Cycle II, a number of substantial improvements were implemented based on the findings from Cycle I's reflection. First, the reward criteria were clarified and made more inclusive: not only answering the teacher's questions, but also actively asking questions, providing constructive comments during discussions, and presenting opinions in front of the class. This aimed to ensure that all students, including those who tend to be introverted, have equal opportunities to receive rewards. Second, the variety of AR content was expanded by adding thematic animations related to Islamic Education (PAI) material, so that rewards had not only emotional value but also educational value. Third, technical procedures were simplified by providing a brief tutorial at the start of the session and ensuring an internet connection was available. The impact was significant: student engagement increased dramatically, and the classical mastery rate reached 96.88%.

Improvements in Self-Efficacy Based on Questionnaire Data

The results of the self-efficacy questionnaire administered to 32 students at three measurement points—pre-cycle, end of Cycle I, and end of Cycle II—are presented in full in Table 1.

Table 1. Summary of the Results of the Three-Stage Self-Efficacy Questionnaire

Indicator	Pre-Cycle	Cycle I	Cycle II	Total Improvement
Average Score	78.56	93.53	106.50	+27.94 points
Percentage (%)	65.47%	77.94%	88.75%	+23.28%
Classical Mastery	15.62% (5/32)	68.75% (22/32)	96.88% (31/32)	+81.26%
N-Gain	–	0.35 (Moderate)	0.47 (Moderate)	–
Achievement Category	Fair	Good	Very Good	–

CONCLUSION

The pre-cycle data revealed a concerning baseline level of self-efficacy among the students. With an average score of 78.56 out of a maximum of 120 (65.47%), only 5 out of 32 students (15.62%) achieved the "Good" category (≥75%). Most students fell into the Fair category (41–60%), with the lowest score of 52 achieved by Jericho Kumala Putra—a profile reflecting overall low self-confidence. The pre-cycle score distribution showed a fairly wide range (52–99), indicating heterogeneity in self-efficacy levels within Class X-E.

After the implementation of Cycle I, a significant improvement occurred. The average score rose to 93.53 (77.94%), with 22 students (68.75%) now having achieved individual mastery. The N-Gain value from the pre-cycle to Cycle I was 0.35, which falls into the moderate category according to Hake's (1999) criteria, indicating that the Cycle I intervention had a tangible impact, though it was not yet optimal. Several students showed dramatic improvements: Jericho Kumala Putra improved from 52 to 81, Dyah Niken from 55 to 87, and Aura Kartika from 66 to 88. This rapid improvement among students with low initial scores indicates that the AR-based Mystery Box Reward had a more pronounced positive impact on those who previously had the lowest self-efficacy.

At the end of Cycle II, a significant improvement occurred again. The average score reached 106.50 (88.75%), with 31 out of 32 students (96.88%) having met the individual mastery criteria. The N-Gain value from Cycle I to Cycle II of 0.47 indicates a higher proportional increase compared to the previous cycle, reflecting the effectiveness of the implemented improvements. Only one student, Nawang Arum Wanodyo Ratri, with a score of 93 (77.50%), had not yet achieved mastery, though this score was very close to the threshold. Three students even achieved a perfect score of 120 or came close to it: Dwi Fika Oktafiani (120), Icha Marlinna Susanti (117), and Jizzy Hecha Emelly Chiquita (118).

Overall, the success criteria were met in Cycle II: 96.88% of students achieved the Good to Very Good categories, far exceeding the 75% threshold set as an indicator of the intervention's success. A comparison between the pre-cycle score range (52–99) and the Cycle II range (89–120) shows positive homogenization: not only did the average score increase, but the gap between students also narrowed, indicating that this medium successfully reached nearly all types of students equally.

Improving Self-Efficacy Based on Observation Data

The researcher conducted observations during each learning session to directly observe manifestations of self-efficacy behavior. The observation sheet included six indicators: (A) willingness to answer questions, (B) initiative in asking questions, (C) participation in group discussions, (D) willingness to express

opinions in front of the class, (E) persistence in tackling difficult tasks, and (F) positive response to feedback. Observations were conducted at every meeting in each cycle, yielding data per meeting that allowed for more detailed progress monitoring. The results of the five-stage observations are presented in Table 2.

Table 2. Summary of Self-Efficacy Observation Results by Meeting

Stage	Average Score	Percentage	Category	Change
Pre-Cycle	13.91 / 24	57.94%	Fair	–
Cycle I – Meeting 1	18.22 / 24	75.91%	Good	+17.97%
Cycle I – Meeting 2	21.06 / 24	87.76%	Very Good	+11.85%
Cycle II – Meeting 1	21.06 / 24	87.76%	Very Good	0.00%
Cycle II – Meeting 2	23.00 / 24	95.83%	Very Good	+8.07%

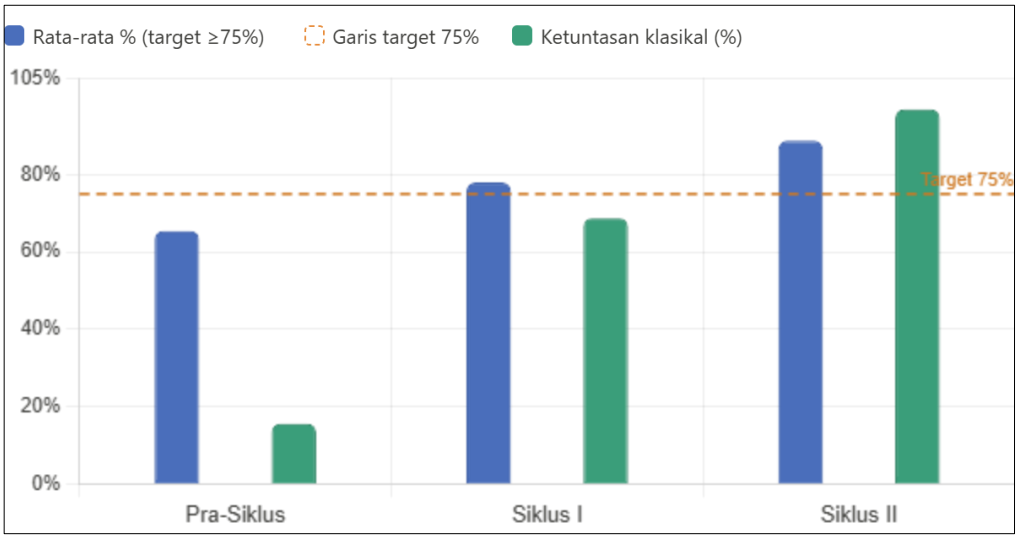

Figure 1. Diagram of Self-Efficacy Improvement Based on the Questionnaire – Pre-Cycle, Cycle I, and Cycle II

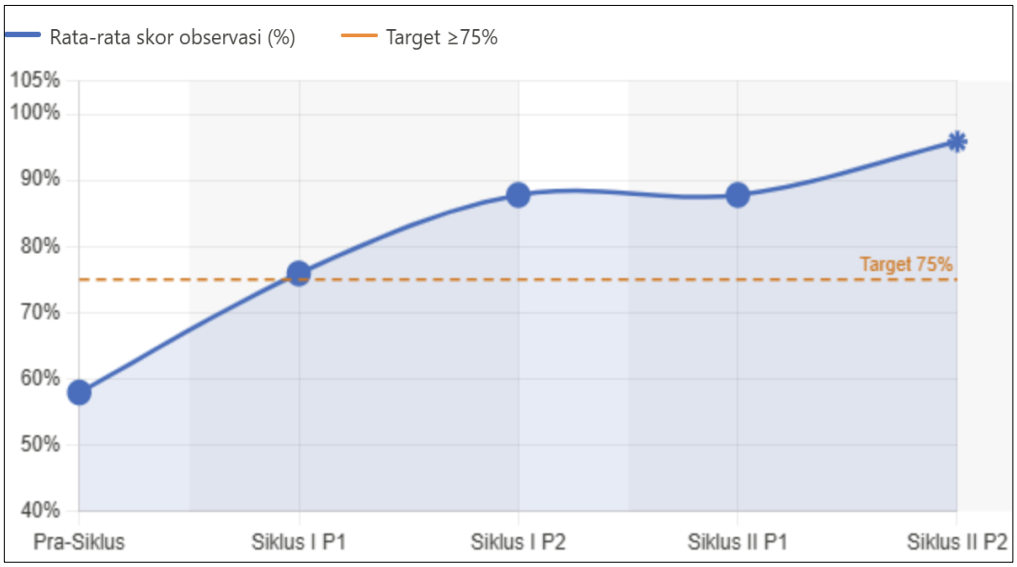

Figure 2. Diagram of Observation Improvement per Session

From Pre-Cycle to Cycle II, Session 2

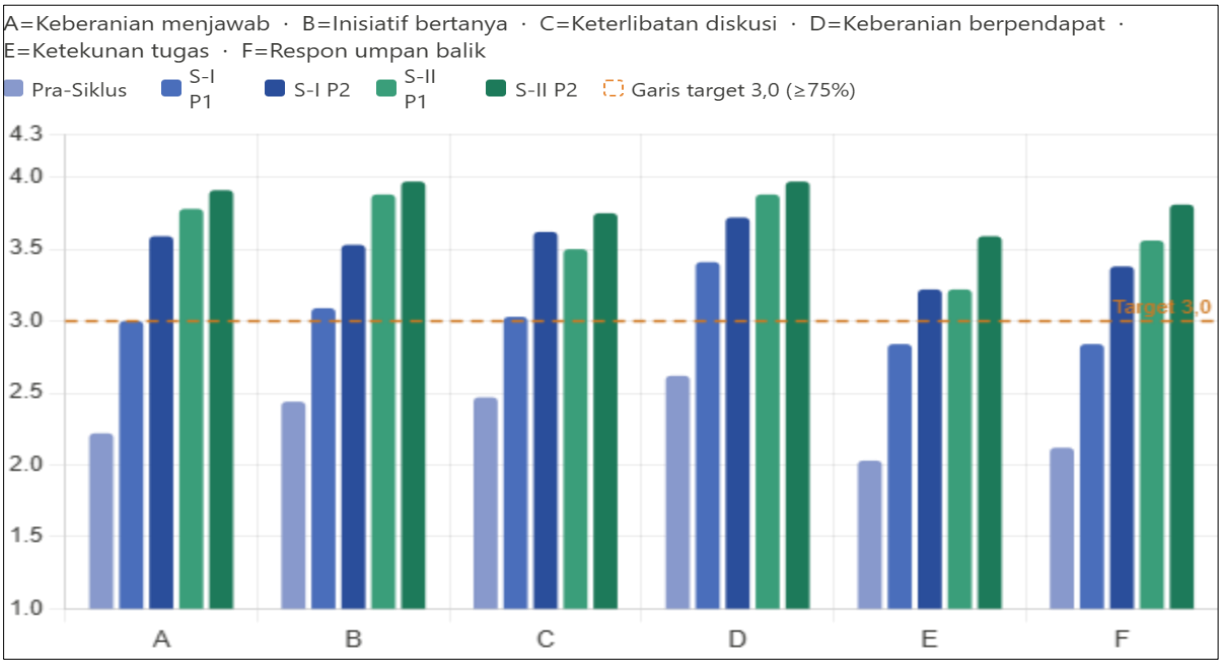

Figure 3. Diagram Showing the Percentage of Achievement of Performance Indicators (Target ≥75%)

Pre-cycle observation data, with an average score of 13.91 (57.94%, "Fair" category), reflects a classroom dynamic dominated by passive engagement. Students only participated when directly called on by the teacher, rarely took the initiative to ask questions, and often expressed confusion without attempting to find solutions on their own. The indicators with the lowest scores at this stage were persistence in the face of difficult tasks (indicator E, average 2.03) and response to feedback (indicator F, average 2.12)—two aspects that most directly reflect low self-efficacy.

In Cycle I, improvements occurred gradually in each session. In Session 1 of Cycle I, the average observation score reached 18.22 (75.91%, "Good" category), an increase of +17.97% from the pre-cycle. Behavioral changes began to become evident: more students were willing to answer questions without being called on, group discussions became more lively, and some students began to ask questions spontaneously. In Session 2 of Cycle I, the average observation score increased further to 21.06 (87.76%, "Very Good" category), a +11.85% increase from the previous session. The PAI teacher confirmed in a post-research interview that "the frequency has increased; students who previously remained silent have started to answer questions and occasionally ask questions of the teacher."

In Cycle II, the consistent pattern of improvement continued in both sessions. In Session 1 of Cycle II, the average observation score remained stable at 21.06 (87.76%, "Very Good" category), indicating a consolidation of the behaviors established in Cycle I. In Session 2 of Cycle II, the average observation score peaked at 23.00 (95.83%, "Very Good" category), an

increase of +8.07% from the previous session. The behavioral change was qualitative: shifting from reactive engagement (answering when called on) to proactive engagement (taking the initiative without waiting for instructions). The PAI teacher described this condition as "students appearing more active during lessons; the classroom atmosphere became livelier, and more students began to respond." In fact, during some sessions, a "healthy competition" emerged among students as they vied to provide the best answers to win a QR Mystery Box card.

Interview Findings: Students' Subjective Experiences

To deepen our understanding of the psychological processes underlying the increase in self-efficacy, the researchers conducted in-depth interviews with four students who were purposively selected based on variations in their initial self-efficacy profiles. The main themes that emerged from the interviews are summarized in Table 3.

Table 3. Main Themes from Student Interviews

Interview Statement (Student)	Respondent	Theme
"I became more willing to answer questions because I wanted to get the reward too."	Ibni M. F.	Participation motivation
"I felt happy and became more confident after receiving the reward."	Jizzy H. E.	Self-efficacy reinforcement
"Although I still feel nervous sometimes, now I try to answer more often."	Jizzy H. E.	Increased courage
"When I opened the mystery box and saw the reward, it made me curious from the beginning."	Jericho K.	Surprise element and curiosity
"It felt like all the effort I made was worth it."	Jericho K.	Mastery experience

From the summary of these interviews, three main psychological mechanisms appear to play a role in increasing self-efficacy. First, the experience of mastery: the statement "it feels like my earlier efforts weren't in vain" (Jericho) indicates that the rewards received reinforce the students' perception of their own success, allowing them to internalize the experience of success as tangible proof of their competence. Second, the shift from extrinsic to intrinsic motivation: the initial motivation to earn rewards gradually evolved into internalized confidence, as evidenced by the statement that they "tried to answer more often" even though they still sometimes felt nervous. Third, psychological safety: the element of surprise and the enjoyable competitive atmosphere created a sense of safety to try and fail without excessive shame.

Interviews with Islamic Education Religious teachers revealed a striking contrast between conditions before and after the study. Before the intervention, teachers described students

as a group that "had fairly good abilities, but their self-confidence still needed improvement." After the intervention, teachers noted that "many students began to dare to express their opinions, although they sometimes still needed a little encouragement." Teachers also stated that this medium helped them "build more positive emotional connections with students through constructive appreciation."

Theoretical Analysis and Discussion

The consistent and significant increase in self-efficacy across each cycle can be explained through four theoretical mechanisms that mutually support and reinforce one another. First, the Mystery Box Reward directly activates the mastery experience—the strongest source of self-efficacy according to Bandura—through the moment of receiving a reward that feels tangible, meaningful, and personal. When students successfully answer a question and then witness an AR animation appear from the card they received, this experience provides concrete confirmation that "I am capable, and my efforts are valued." This confirmation is far stronger than verbal praise alone because it is visual, interactive, and experienced through multiple senses.

Second, AR visualization functions as reinforced social persuasion. In Bandura's theory, social persuasion—in the form of encouragement and positive feedback from the environment—is a key source of self-efficacy. In this study, positive feedback comes not only from the teacher verbally but also from the AR system, which provides immersive visual responses. The combination of the teacher's appreciation and AR animations creates a layered reinforcement experience that is more impactful and leaves a longer-lasting impression in students' emotional memory.

Third, the element of surprise in the Mystery Box activates curiosity, which drives intrinsic motivation. This condition creates what Csikszentmihalyi refers to as a "flow state"—a state of optimal engagement where students are fully absorbed in the learning activity. Students in a flow state no longer view learning as a burdensome obligation but rather as an enjoyable and meaningful experience. It is in this state that self-efficacy grows organically: students try, succeed, receive rewards, and become increasingly confident in their abilities.

Fourth, an inclusive reward design provides equal opportunities for all students to participate, fostering psychological safety in the classroom. When students feel that their efforts are valued without needing to be the best, anxiety about social evaluation decreases. This reduction in anxiety is directly linked to the fourth source of self-efficacy identified by Bandura: physiological and emotional states. A more positive and appreciative classroom atmosphere creates an emotional environment conducive to the growth of self-confidence.

The findings of this study align with and simultaneously reinforce various previous studies. Nurvitasari's (2023) study demonstrates that fostering self-efficacy through varied rewards enhances students' self-confidence and courage, consistent with the findings of this study. Azizah et al.'s (2024) research proves that the mystery box medium increases students' cognitive engagement, aligning with the observed increase in active engagement indicators in this study. What distinguishes this study from the others is the integration of AR, which provides a layer of visual-interactive experience to reinforce the mastery experience—an innovation never previously examined in the context of Islamic Education at the high school level.

Several critical notes should also be noted. Of the 32 students analyzed, one student (Nawang Arum) did not achieve mastery in Cycle II with a score of 93 (77.50%). Analysis of this student's profile showed consistent improvement (86→88→93), though at a slower rate compared to her peers. This indicates that technology-based interventions do not have a uniform impact on every individual; factors such as techno-anxiety, learning styles, and personal socio-emotional conditions need to be considered in future implementations. Additionally, four students who were consistently absent could not be analyzed, so generalizing the findings must be done with caution.

CONCLUSION

This study has empirically demonstrated that the implementation of the Augmented Reality-based Mystery Box Reward effectively enhances students' self-efficacy in Islamic Education in Class X-E at SMAN 3 Tuban. The implementation, conducted through two cycles of action research, demonstrated a process that was well-planned, adaptive, and responsive to students' needs.

Quantitatively, three main findings can be summarized. First, the average self-efficacy percentage increased consistently from 65.47% (pre-cycle, "Fair" category) to 77.94% (Cycle I, "Good" category) and 88.75% (Cycle II, "Very Good" category). Second, classical mastery rates increased from 15.62% to 96.88%, exceeding the set minimum target of 75%, with only one student remaining unmastered but very close to the threshold. Third, the N-Gain values in both cycles fell into the moderate category (0.35 and 0.47), indicating a proportionally significant improvement.

Qualitatively, observations and interviews confirmed a tangible shift in behavior: from a classroom dominated by passive engagement toward a dynamic classroom characterized by proactivity and initiative. Observation data showed a gradual increase from 57.94% (pre-cycle) to 95.83% (Cycle II, Session 2, "Very Good" category). Students who were previously reluctant to answer questions now dare to participate voluntarily, even

competing healthily for the opportunity to open the AR Mystery Box.

These findings contribute to the development of knowledge in two areas. Theoretically, this study reinforces the argument that digital technology-based rewards can activate all four sources of Bandura's self-efficacy simultaneously—particularly mastery experience and physiological/emotional states—in ways conventional rewards cannot achieve. Practically, the AR-based Mystery Box Reward is recommended as an adaptive alternative learning strategy for Islamic Education tailored to Generation Z characteristics, while considering the school's technological infrastructure readiness.

Further research is suggested to examine: (1) the long-term effectiveness of this medium on students' self-efficacy resilience; (2) a comparison of effectiveness across PAI subjects at various educational levels; (3) the development of AR content that is more integrated with Islamic Education Religious subject matter; and (4) the influence of this medium on students' cognitive learning outcomes.

REFERENCES

Ahmad, H., & Yanti, S. D. (2025). Pengaruh konseling cognitive disputation terhadap self confidence siswa SMP. *Realita: Jurnal Bimbingan dan Konseling, 10*(2), 2908–2933. https://doi.org/10.33394/realita.v10i2.17436

Aditama, P. W., Adnyana, I. N. W., & Ariningsih, K. A. (2019). Augmented reality dalam multimedia pembelajaran. *SENADA, 2*, 176–182.

Aditia, R. (2024). Peran dan tantangan teknologi augmented reality dalam meningkatkan pengalaman pengguna media. *Amerta Jurnal Ilmu Sosial dan Humaniora, 4*(1), 35–43. URL jurnal: https://journal.amerta.ac.id

Akmal, S., & Susanti, E. (2019). Analisis dampak penggunaan reward dalam pembelajaran Pendidikan Agama Islam di SMA Muhammadiyah Aceh Singkil. *Jurnal Ilmiah Didaktika, 19*(2), 159–177. https://doi.org/10.22373/jid.v19i2.5031

Andriana, E., & Rokmanah, S. (2023). Pengaruh reward terhadap motivasi belajar peserta didik di kelas 1 SDN Cinanggung. *Didaktik: Jurnal Ilmiah PGSD STKIP Subang, 9*(5), 2456–2472. https://doi.org/10.36989/didaktik.v9i5

Awaliyani, S. A., & Ummah, A. K. (2021). Upaya meningkatkan kepercayaan diri siswa melalui kegiatan muhadhoroh. *Indonesian Journal of Teacher Education, 2*(1), 246–252. URL jurnal: https://journal.publicationcenter.com/index.php/ijte

Azizah, F. F., Solehah, K., Rakhmawati, D., & Novianti, R. (2024). Pengaruh penggunaan media Mystery Box untuk meningkatkan kemampuan literasi dan numerasi siswa kelas V SDN 1 Imbanagara Raya. *Jurnal Kreativitas Mahasiswa, 2*(2), 64–73.

Bandura, A., & Evans, R. I. (2006). *Albert Bandura*. Insight Media. URL penerbit: https://www.insight-media.com

Bela, W. N. S. (2025). *Analisis dampak pemberian reward terhadap motivasi belajar siswa kelas III SDN Penggaron Kidul Semarang* (Skripsi). Universitas PGRI Semarang. URL repositori: https://repository.upgris.ac.id

Budiarso, A. (2023). Efektivitas penggunaan reward dan punishment untuk

meningkatkan keberhasilan pendidikan karakter di sekolah dasar. *Education: Jurnal Sosial Humaniora dan Pendidikan, 3*(1), 52–64.

Dinarti, S. (2024). Pengaruh alat peraga berbasis augmented reality terhadap hasil belajar matematika siswa sekolah dasar. *JEDMA: Jurnal Edukasi Matematika, 5*(1), 9–18.

Indahsari, L., & Sumirat, S. (2023). Implementasi teknologi augmented reality dalam pembelajaran interaktif. *Cognoscere: Jurnal Komunikasi dan Media Pendidikan, 1*(1), 7–11. https://doi.org/10.61292/cognoscere.v1i1.20

Khasanah, U., Rahayu, D. W., Mustofa, M., & Sunanto, S. (2025). Pengaruh penggunaan media pembelajaran Wordwall dan pemberian reward terhadap hasil belajar siswa SDN Sidosermo 1 Surabaya. *Indonesian Research Journal on Education, 5*(1), 1236–1240.

Latifah, E. (2023). Peran Guru Pendidikan Agama Islam Dalam Pembinaan Karakter Siswa. *Jurnal Tahsinia, 4*(1), 40–48. https://doi.org/10.57171-/jt.v4i1.357

Melinda, I. (2018). Pengaruh reward dan punishment terhadap motivasi belajar siswa kelas IV A SDN Merak I. *International Journal of Elementary Education, 2*(2), 81–86. https://doi.org/10.23887/ijee.v2i2.14408

Mukhid, A. (2009). Self-efficacy: Perspektif teori kognitif sosial dan implikasinya terhadap pendidikan. *TADRIS: Jurnal Pendidikan Islam, 4*(1), 106–122. https://doi.org/10.19105/tjpi.v4i1.247

Neliwati, N., Siregar, F. T., Siregar, A. A., & Batubara, H. (2023). Upaya guru pendidikan agama Islam dalam meningkatkan minat belajar siswa madrasah tsanawiyah. *Munaddhomah: Jurnal Manajemen Pendidikan Islam, 4*(2), 297–306. https://doi.org/10.31538/munaddhomah.v4i2.435

Nurdianto, I. (2025). *Teori behavioristik dan implikasinya dalam pembelajaran*. Angkasa.

Nurvitasari, E. P. (2023). *Penanaman self efficacy dalam meningkatkan motivasi belajar melalui pemberian reward game kelas V MIM 7 Sidoharjo Pulung Ponorogo* (Skripsi). Universitas Muhammadiyah Ponorogo.

Pahleviannur, M. R., Harmain, H., Nasution, M. Z., Haqiqi, A. K., Putra, A. H., Bahri, S., Purba, B., Chaerul, M., Widiastuti, A., Simarmata, J., & others. (2022). *Penelitian tindakan kelas*. Pradina Pustaka.

Pasaribu, M. S., & Pohan, S. (2024). Analisis dan strategi upaya guru PAI dalam meningkatkan kepatuhan peserta didik pada nilai-nilai agama Islam. *Didaktika: Jurnal Kependidikan, 13*(4), 4471–4484. https://doi.org/10.58230/27454312.7807

Pratiwi, R. E. K. A. (2020). *Pengaruh penghargaan (reward) dan efikasi diri (self-efficacy) terhadap efektivitas kerja guru SMA Negeri Kota Bekasi* (Tesis). Universitas Negeri Jakarta.

Sarah, D. M., Vika, A. I. V., Hasibuan, N., Sipahutar, M. S., & Simamora, F. E. M. (2022). Pengaruh pemberian reward dan punishment terhadap motivasi belajar siswa. *Edu Cendikia: Jurnal Ilmiah Kependidikan, 2*(1), 210–219. https://doi.org/10.47709/educendikia.v2i01.1590

Tarigan, E., Atrizka, D., Hutabarat, A. C. H., Utami, C. N., & Tarigan, F. B. (2024). Hubungan efikasi diri terhadap motivasi belajar pada mahasiswa Fakultas Psikologi Universitas Prima Indonesia. *Ranah Research: Journal of Multidisciplinary Research and Development, 6*(2), 269–281. https://doi.org/10.38035/rrj.v6i2.820