Experimental Method Effectiveness on Learning Outcomes and Honesty Values in Islamic Education: A Classroom Action Research

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Abstract: Previous studies on the experimental method have generally focused on science subjects and cognitive achievement, while its application in Islamic Religious Education (PAI), specifically regarding the topic of honesty, remains limited. This study aims to analyze the learning activities, learning outcomes, and the improvement in mastery levels among seventh-grade students at SMP Negeri 1 Abuki using the experimental method in PAI instruction. This Classroom Action Research (CAR) was conducted over two cycles, each comprising planning, action, observation, and reflection, with 20 students as subjects. Data were collected through observations of teacher and student activities, learning outcome tests, and documentation, then analyzed using descriptive quantitative methods based on a Minimum Mastery Criterion (KKM) of 73 and a minimum class mastery threshold of 80%. In the first cycle, teacher activity reached 89.6% and student activity 89.4%, with an average score of 71.5 and a mastery rate of 65%. In the second cycle, teacher activity increased to 92.2% and student activity to 92.3%, with an average score of 78 and a mastery rate of 80% (16 out of 20 students), thereby meeting the success indicators. The originality of this research lies in demonstrating the potential of the experimental method as a PAI pedagogical approach that bridges direct experience, active engagement, and the understanding of the value of honesty, rather than focusing solely on cognitive achievement. These findings broaden the application of a constructivist perspective within PAI instruction and provide a practical reference for teachers to integrate cognitive and affective engagement when teaching values.

Keywords: Learning Outcomes, Honesty, Experimental Method, Islamic Religious Education, Classroom Action Research.

INTRODUCTION

Education is a deliberate and systematic process of developing learners' attitudes, knowledge, and skills as an integrated whole, rather than a routine transfer of content from teacher to student. In Indonesia, this mandate is articulated in Law No. 20 of 2003 on the National Education System, which aims to develop learners' spiritual and religious strength, self-control, intelligence, noble character, and the skills needed by themselves and society (Habe & Ahiruddin, 2017). The Merdeka Curriculum reinforces this vision through the Pancasila Student Profile, which envisions learners who are faithful, independent, critical, creative, and globally minded. Classroom interaction is therefore the point at which these normative aspirations either become pedagogical practice or remain policy rhetoric.

Within this framework, Islamic Religious Education (*Pendidikan Agama Islam*, PAI) occupies a distinctive position. Ideally, PAI does more than deliver religious knowledge; it internalizes values and shapes character (Mahfud & Zahriyah, 2025). Honesty (*sidq*) is one of the most fundamental of these values, since it underpins trust, academic integrity, and social responsibility. Achieving this goal requires learning experiences in which students construct meaning and connect moral concepts to their own behavior, in line with constructivist views that knowledge is actively built through experience and social interaction.

In practice, however, a persistent gap separates this ideal from classroom reality. PAI instruction is still often dominated by teacher-centered, lecture-based delivery that positions students as passive recipients (Ikmah et al., 2025). Opportunities for dialogue, exploration, and direct experience remain limited. As a result, value-laden material tends to stay at the cognitive level of definitions and textual evidence and does not become internalized moral awareness, so the transfer of values is not optimal.

This gap is also evident at SMP Negeri 1 Abuki. Preliminary observations showed low active participation in PAI lessons: students lacked confidence in expressing ideas, showed limited interest in following lessons fully, and struggled to connect abstract concepts with everyday life. Weak literacy and low engagement in group and individual tasks suggest that instruction has not yet fostered critical and reflective thinking. This condition contrasts with the demands of twenty-first-century learning, which emphasizes student-centered pedagogy.

Constructivist theory and experiential learning offer a conceptual response. Learning is most effective when students can discover, test, and

reflect on knowledge individually and collaboratively. The experimental method, in which learners observe, conduct trials, discuss findings, and draw conclusions, operationalizes this principle. Recent studies report that experiential and active learning strategies enhance cognitive, affective, and psychomotor engagement (Bada & Olusegun, 2015; Zajda, 2021).

The existing literature on the experimental method has concentrated heavily on science education, where it has been associated with improved conceptual understanding and learning outcomes (Matriano, 2020). Research on character and values education has explored strategies such as discussion, role-play, and habituation (Bhattacharjee, 2015), and some PAI studies have examined active learning models (Bonk & Cunningham, 2012). Yet these strands have rarely been brought together.

A gap analysis of these studies reveals three limitations. First, contextually, the experimental method has been applied predominantly to empirical science subjects, with scant evidence from PAI. Second, in terms of content, value-laden topics such as honesty are seldom examined through experience-based designs; they are more often taught through exposition. Third, methodologically, studies on active learning in PAI often report outcomes without documenting how learning activity and mastery improve across successive action cycles.

This study addresses these gaps by adapting the experimental method, conventionally associated with empirical inquiry, to the teaching of honesty in PAI. Rather than presenting honesty only as a normative definition or textual proof, the instruction engages students in observation, simple social experiments, group discussion, and reflection on the consequences of honest and dishonest behavior. The novelty therefore lies in the contextual transfer of the experimental method into religious value education, combined with a cyclical classroom action research design that tracks improvements in learning activity and outcomes across two cycles.

The urgency of this research is both theoretical and practical. Theoretically, it responds to the need for PAI instructional models aligned with constructivist and humanistic paradigms, echoing Driyarkara's view of education as the humanization of young people, which requires students to be active, reflective, and responsible subjects. Practically, it offers PAI teachers a concrete strategy for moving from information provider to facilitator of collaborative, exploratory learning in which students share roles, test ideas, and reach conclusions together. Such a process can strengthen not only achievement but also communication, social skills, and moral responsibility.

Accordingly, this study aims to (1) analyze teacher and student learning

activities, (2) measure learning outcomes, and (3) evaluate improvement in mastery learning against the school's minimum mastery criterion among seventh-grade students at SMP Negeri 1 Abuki through the experimental method in PAI. By doing so, it contributes empirical evidence on experience-based value education and offers a replicable pedagogical model for strengthening character-oriented PAI instruction.

METHOD

This study employed classroom action research (CAR) conducted with seventh-grade students at SMP Negeri 1 Abuki, Abuki District, Konawe Regency, Southeast Sulawesi, Indonesia, during the odd semester of the 2022/2023 academic year. CAR was selected because it aims to improve instructional practice directly through deliberate interventions in the classroom setting (Kemmis & McTaggart, 2002; Sanjaya, 2016). The participants were 20 seventh-grade students enrolled in the Islamic Religious Education (PAI) course, selected through total sampling because the intervention was implemented in one intact class. The study followed Kemmis and McTaggart's cyclical model, comprising planning, action, observation, and reflection, across two cycles. In each cycle, the researcher, who also acted as the PAI teacher, prepared a lesson plan and student worksheets for the experimental method on honesty material. Students then carried out the learning stages in small groups: formulating problems, conducting simple social experiments, observing and recording results, discussing findings, and drawing conclusions linked to Islamic teachings on honesty. Reflection findings from Cycle I, including the unmet mastery indicator, informed revisions to the lesson design in Cycle II.

Data were collected through three techniques: (1) structured observation sheets used by a collaborating observer to record teacher and student activities, (2) end-of-cycle learning outcome tests, and (3) supporting documentation such as photographs, student worksheets, and school records. The observation instruments and tests were validated through expert judgment. Quantitative data were analyzed descriptively, using the percentage of observed activity, the mean score, and classical mastery learning. A student was considered to have mastered the material by scoring at or above the school's minimum mastery criterion (KKM) of 73. The action was deemed successful when classical mastery reached at least 80% and teacher and student activity fell into the good category. Cycle I results were compared with Cycle II results to determine improvement.

RESULTS AND DISCUSSION

Results

Indicator	Cycle I	Cycle II	Change
Teacher activity (%)	89.6	92.2	+2.6
Student activity (%)	89.4	92.3	+2.9
Mean learning outcome score	71.5	78.0	+6.5
Students reaching KKM (n = 20)	13	16	+3
Classical mastery (%)	65	80	+15 percentage points
Students below KKM	7	4	−3

This study traced learning activity and learning outcomes across two action cycles of the experimental method on honesty material in Islamic Religious Education. The results are reported in the order of the research objectives: learning activity, learning outcomes, and improvement against the mastery indicator.

In Cycle I, observed teacher activity reached 89.6% and student activity 89.4%, both in the “very good” category. Instruction was therefore already active and well structured from the first cycle. This high baseline of activity is a distinctive feature of the data and shapes how the later gains should be read.

Despite this high activity, reflection showed that many students struggled with the epistemic steps of experimentation. They had difficulty formulating hypotheses, organizing work procedures, and drawing systematic, logical conclusions. Participation was thus visible, but the reasoning that should accompany it was uneven.

The same dissociation appeared in outcomes. Cycle I produced a mean score of 71.5, below the KKM of 73, and classical mastery of 65%, with 13 of 20 students meeting the criterion. The success indicator (e”80%) was not met, even though activity scores were already high.

Reflection identified two causes: limited prior understanding of experimental procedures and shallow group discussion of what honesty means. Observations of group work showed that students completed the tasks without examining the moral significance of their findings.

Cycle II introduced four revisions: a more tightly guided experimental design, rearranged seating to support group interaction, stronger teacher instruction and scaffolding during discussion, and integration of Q.S. Al-Baqarah verse 42 as a normative basis for honest behavior. These revisions were direct responses to the Cycle I reflections.

Activity rose modestly after these revisions, with teacher activity at 92.2% and student activity at 92.3%. The gains of 2.6 and 2.9 percentage points are small because activity was already near ceiling, and the improvement lay more in the quality of interaction than in its quantity.

Learning outcomes changed more visibly. The mean score rose from 71.5 to 78.0, moving the class average from below to above the KKM. Classical mastery rose from 65% to 80%, with 16 students meeting the criterion and four still below it. The mastery indicator was met exactly at its threshold.

According to the score recapitulation, most students improved, including those who began in the low-achievement group, and several showed marked gains, according to the score recapitulation, the class mean rose by 6.5 points and classical mastery rose from 65% to 80%, with three students newly meeting the KKM criterion. All three had scored below the KKM in Cycle I, so the gains were reached by students in the low-achievement group. The improvement was therefore spread across the class rather than concentrated among high achievers.

Because all indicators were met in Cycle II, the action was stopped after two cycles. The most distinctive empirical pattern is that outcomes improved more markedly than activity, which was already high. This suggests the gain came from better-guided reasoning and meaning-making within the activity, not from increased participation alone.

Discussion

The central finding, that mean scores and classical mastery rose between cycles, is consistent with constructivist accounts in which knowledge is built through active engagement with experience (Sarah Salsa et al., 2025; Teguh Handoyo & Ani Ani, 2025). Honesty, usually delivered as a definition or a textual proof, was here approached through observation, trial, and discussion. This supports the study's premise that experimental pedagogy can be transferred from empirical subjects to value-laden religious content.

The more instructive result is the gap between activity and outcomes in Cycle I. High activity did not produce mastery, which suggests that behavioral engagement is not equivalent to cognitive engagement. This echoes the distinction between "hands-on" and "minds-on" learning: students can carry out every procedural step without constructing the conceptual meaning the activity was designed to reveal. The finding cautions against using activity percentages alone as evidence of effective learning (Pintrich & Schragben, 2012).

The Cycle II improvement can be interpreted through Vygotsky's zone of proximal development and the notion of scaffolding (Xi & Lantolf, 2021). Students' difficulties with hypotheses, procedures, and conclusions indicate tasks just beyond independent capacity. The guided experimental design and structured teacher support in Cycle II likely worked as scaffolds that made these tasks achievable. In this reading, the gain reflects the quality of guidance and not the experimental method alone.

Kolb's (1984) experiential learning cycle offers a complementary lens (Wibowo et al., 2024). Cycle I appears to have emphasized concrete experience and active experimentation but under-supported reflective observation and abstract conceptualization, the phases that turn activity into understanding. Cycle II strengthened discussion and added normative framing, completing more of the cycle. The action research design itself mirrors this logic, since reflection after Cycle I drove the revision.

Ausubel's meaningful learning theory explains how the Qur'anic text may have contributed (Bryce & Blown, 2024; Hamida et al., 2022; Silva, 2020). New information is retained when it is anchored to existing cognitive structures. Students' own experiences of honest and dishonest behavior, evoked by the experiment, may have provided the anchor, while the verse offered an organizing normative concept. Together they may have turned abstract moral terms into connected understanding, which would explain the higher post-cycle scores.

The improvement among initially low-achieving students is consistent with social constructivism and peer learning (Boke et al., 2025; Cagatan & Quirap, 2024; Wahidah & Daryono, 2024). Small-group roles and discussion let students exchange ideas and explain concepts to one another, which can narrow gaps in achievement. The rearranged seating in Cycle II plausibly strengthened this mechanism. This interpretation remains provisional until individual-level data and group interaction records are analyzed.

The study also touches the affective dimension of PAI. Symbolic experiments that represent honesty can connect moral cognition with moral feeling (Harahap et al., 2025), which aligns with Lickona's view that character requires knowing, feeling, and acting on the good. Smagorinsky (2018) work likewise implies that moral reasoning develops through reflection on consequences. However, this study measured cognitive achievement and observed activity, not honest behavior. The evidence supports improved understanding of honesty, not changed conduct.

Relative to the literature, which has applied the experimental method mostly in science (see the Introduction), these findings extend its use to

religious value education. The distinctive contribution is the pairing of empirical inquiry with scriptural grounding: the experiment supplied lived experience, and the revealed text supplied normative orientation.

This contribution can be positioned against three strands of prior PAI research. First, experimental and quasi-experimental studies in PAI have typically targeted cognitive mastery of subject matter; fiqh, Qur'an–hadith, or aqidah content, without taking a specific moral value as the object of learning (Niyozov & Memon, 2011). The present study reverses that emphasis: the method serves not content mastery alone but the internalization of honesty. Second, treatments of honesty in PAI are largely normative–descriptive, arguing from scripture and theory that honesty should be formed through habituation and exemplary modeling, without testing the claim empirically (Yasin & Jani, 2013). The present study supplies that empirical component, while its own limitations—a single class and no comparison group—warrant equal caution. Third, prior classroom studies on values in PAI have generally measured either understanding or observed activity, not both (Douglass & Shaikh, 2004); by triangulating an achievement test with structured observation, this study made visible the gap between high engagement and incomplete mastery. Read together, the findings converge with these studies in reporting gains in learning outcomes, but extend them by transferring the experimental design to religious value education and by showing that experiential and normative sources—experiment and revelation—can work together in PAI rather than compete.

Unlike previous PAI studies that attribute improved outcomes to a method without specifying enabling conditions (Niyozov & Memon, 2011), the present account names three conditions under which the method worked: guided procedures, structured reflective discussion, and explicit normative anchoring. This sketches a "guided experiential–normative" approach to teaching values in PAI, a proposition to be tested rather than a settled model.

The magnitude of the effect should be interpreted with caution. Classical mastery reached exactly 80%, and four students remained below the KKM. The class mean rose by 6.5 points, but without a comparison group or inferential statistics, the gain cannot be attributed to the intervention alone. Other influences are possible: increasing familiarity with the test format, differences in difficulty between the cycle tests, the researcher also acting as teacher, and general maturation. The results show improvement consistent with the intervention, not proof of causation.

Taken together, the findings point to a conditional account. The experimental method improved outcomes in this class when three conditions

were present: guided procedures, structured reflective discussion, and explicit normative anchoring. Without these, high activity coexisted with incomplete mastery. This sketches a "guided experiential–normative" approach to teaching values in PAI, a proposition to be tested rather than a settled model.

For PAI teachers, the results suggest that using experiments is not enough; they must be paired with scaffolding, structured reflection, and links to Islamic sources, and teachers should monitor conceptual understanding rather than rely on participation indicators. For school leaders and curriculum developers, the findings support experience-based modules for value-laden topics in line with the Merdeka Curriculum's emphasis on student-centered learning. Theoretically, the study adds evidence that constructivist and experiential principles can be applied to religious value education.

The study involved a single class of 20 students in one school and used a classroom action research design without a control group or inferential testing, so generalization and causal claims are limited. The researcher's dual role as teacher may introduce bias, and different tests in each cycle may differ in difficulty. The study did not measure honest behavior or attitudes, so claims about internalization of values cannot be made. The mastery target was met at its minimum, and four students did not reach the KKM.

Future studies should use quasi-experimental or mixed methods designs with larger, multi-school samples, control groups, and parallel or validated instruments. They should add measures of honesty attitudes and behavior, such as scales, behavioral tasks, or teacher and parent reports, and delayed post-tests to assess retention. Qualitative data from interviews and reflective journals could clarify how students make meaning. Comparing guided and unguided versions of the method would also test whether scaffolding is the key condition. Teachers are advised to adopt the method with explicit scaffolding and to give extra support to students who remain below the mastery threshold.

CONCLUSION

This classroom action research found that applying the experimental method to honesty material in PAI was associated with improved learning outcomes among seventh-grade students. Mean scores rose from 71.5 to 78.0, and classical mastery rose from 65% to 80% over two cycles, meeting the success indicator. The distinctive finding is that activity was already high in Cycle I yet mastery lagged, and outcomes improved after guided

design, structured discussion, and normative grounding were added. Participation alone did not secure understanding; guided reasoning did.

The findings imply that PAI teachers should combine experiential activities with scaffolding, reflective discussion, and scriptural anchoring, and should assess understanding directly rather than infer it from activity. Given the single-class design, small sample, and lack of a comparison group or behavioral measures, the conclusions are provisional. We recommend that future research test this approach using controlled, multi-site designs and measure honest behavior as well as achievement.

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