

Participation Rose and Mastery Fell: Problem-Based Learning in Islamic Religious Education at an Indonesian Senior Secondary School

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Abstract

Purpose - This study aims to critically examine the commonly reported effectiveness of replacing expository teaching with problem-based learning (PBL) in Islamic Religious and Character Education classrooms in Indonesia. While previous classroom action research studies frequently associate PBL implementation with improved student participation, this study investigates whether increased engagement is consistently followed by improved learning achievement.

Design/Methodology/Approach - The study employed classroom action research based on Lewin's cycle, comparing a baseline lesson using lecture-based instruction with a subsequent learning cycle implementing problem-based learning. The research was conducted in a class of fifteen grade-eleven students at a private senior secondary school in Purwakarta, West Java. Data were collected through structured observations of teacher and student activities, student questionnaires, achievement tests, and documentation. Quantitative data were analysed using descriptive statistics, while qualitative data were examined through thematic analysis.

Findings - The findings indicate that the implementation of problem-based learning improved classroom participation and teacher adherence to the instructional model. Student participation increased from 50.00% to 66.66% of the observation scale, while teacher implementation increased from 43.33% to 56.66%. However, the improvement in learning achievement was limited, with the mean score increasing only from 26.66 to 30.66. Furthermore, classical mastery decreased from 46.67% to 40.00%, as the number of students achieving the minimum threshold declined from seven to six students. These results suggest that increased classroom engagement does not necessarily correspond with improved knowledge acquisition.

Originality/Value - This study provides a critical perspective on Indonesian classroom action research literature, where increased participation is often interpreted as evidence of instructional success without sufficiently examining its relationship with academic achievement. By revealing a divergence between engagement and learning outcomes, the study contributes to a more balanced understanding of problem-based learning implementation and supports the need for evaluating both process and achievement indicators in instructional innovation research.

Keywords: *achievement, classroom action research, Islamic education, participation, problem-based learning*

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I. INTRODUCTION

Indonesian classroom action research on Islamic Religious and Character Education has produced a large and remarkably consistent body of reports. A teacher observes that students are passive, introduces a student-centred model, records higher participation in the second cycle, and concludes that the model succeeded. The pattern recurs across journals, subjects, and school levels.

What recurs less often is an examination of whether the participation gain was accompanied by a gain in what students actually learned.

This study began in that familiar way and did not end there. Participation rose as expected, and achievement did not follow: mean scores improved slightly while the proportion of students meeting the mastery threshold declined. The position taken here is that this divergence is the finding rather than an embarrassment surrounding it, and that reporting it honestly is more useful to teachers than adding another success story to a literature that already has many.

The subject matters for a specific reason. Islamic Religious and Character Education is expected to form disposition as well as transmit content, and participation is therefore valued in its own right, not only as a route to achievement. A teacher who succeeds in getting previously silent students to argue about bullying, adolescent violence, and gambling has accomplished something the subject values independently of test scores. This makes the participation–achievement divergence harder to dismiss here than it would be in a subject where the test is the point, and it makes the question of what was traded for what a genuinely open one.

Two bodies of theory frame the analysis. Problem-based learning positions an authentic problem as the starting point of instruction and the teacher as facilitator rather than transmitter, on the argument that knowledge constructed in the course of solving a problem is better retained and more readily applied (Hmelo-Silver, 2004). Against this, the study of learning activity in Indonesian pedagogy treats participation — attending, questioning, answering, discussing, and offering an opinion — as an observable indicator of engagement (Sardiman, 2018). The two are ordinarily assumed to align, and the contribution of this study lies in an instance where they did not.

The argument advanced is accordingly narrow and, the author hopes, useful: that participation and achievement are separable outcomes of problem-based learning, that Indonesian classroom action research has tended to treat the first as evidence for the second, and that a single cycle of a model unfamiliar to students may raise the former while depressing the latter. The objective is to document the divergence in one class and to interpret it against the available evidence rather than to demonstrate that problem-based learning works.

Recent Indonesian studies illustrate the pattern this study questions. Research on problem-based learning in Islamic Religious Education reported positive effects on student participation during instruction (Rahmawati, 2021). A study at a state senior secondary school in Padang similarly reported increased student activity following implementation (Idawarnis, 2023). A systematic review and meta-analysis of problem-based learning and critical thinking in Indonesian Islamic education concluded in favour of the model (Karim, 2023). Work on Fikih instruction reported gains in both participation and achievement (Hanif, 2024), and a study combining problem-based learning with Teaching at the Right Level reported improved participation (Husna et al., 2025). Research on Islamic Religious Education achievement likewise reported improvement following implementation (Rozaq et al., 2025).

International evidence is less uniform. The most substantial meta-analysis of problem-based learning, covering forty-three studies, found a robust positive effect on students' skills alongside a tendency toward negative results for knowledge acquisition, with a combined effect size that was significantly negative; the same analysis noted that students taught through problem-based learning acquired slightly less knowledge but retained more of what they acquired (Dochy et al., 2003). A subsequent meta-analysis approached from the angle of assessment found that the apparent effect of problem-based learning depends substantially on what the assessment measures, with effects strongest where assessment targets the application of principles rather than recall (Gijbels et al., 2005). Read together, these findings suggest that the Indonesian pattern of uniformly positive reports may reflect what is measured as much as what occurs.

The gap this study addresses is therefore not the absence of research on problem-based learning in Islamic Religious Education, of which there is a great deal, but the absence of reports in which participation and achievement are examined separately and found to diverge. Theoretically, the case supplies a classroom-level instance of a pattern established meta-analytically in higher education. Practically, it matters because a teacher who reads only the Indonesian literature will expect

participation gains to carry achievement with them, and will be unprepared for what this study documents.

II. METHOD

This study used classroom action research following Lewin's cycle of planning, action, and fact-finding, in which observation and reflection are conducted as part of the evaluation of each action rather than as separate stages (Lewin, 1946). Participants were the fifteen students of class XI-1 at a private senior secondary school in Purwakarta, West Java, together with their teacher of Islamic Religious and Character Education. The topic taught was bullying, violence between students, and gambling. The design comprised a baseline lesson taught by the expository method the class was accustomed to, followed by one cycle in which the same teacher taught through problem-based learning: students examined a presented case, discussed it in groups, formulated positions, and presented their conclusions. This is a single cycle of the intended action preceded by a documented baseline, not two cycles of the action, and the limitation this imposes is discussed in Section 4.4.

Four instruments were used, each selected for what the others could not reach. Structured observation recorded teacher and student activity against a fixed indicator schedule, because the study's primary construct is observable behaviour rather than reported attitude. Achievement tests before and after the action provided the learning-outcome measure, without which a participation gain cannot be interpreted. A student questionnaire recorded responses to the model, because participation observed from outside does not establish how students experienced it. Documentation of lesson plans and student work provided a record against which observation and test data could be checked. Quantitative data were analysed descriptively through means, mastery percentages, and activity percentages; qualitative data were analysed through the reduction, display, and conclusion-drawing sequence (Miles et al., 2014). Because the study covers one class over one cycle, the analysis establishes what occurred in this classroom and makes no claim to generalisation.

III. RESULT AND DISCUSSION

3.1 What the Observation Recorded

In the baseline lesson the teacher held the centre of the lesson throughout. Students were largely passive: few asked questions, few volunteered opinions, and participation in discussion was limited. Observed student activity stood at 50.00 per cent of the observation scale and observed teacher activity at 43.33 per cent, the latter reflecting that the intended model was not in use.

In the action cycle the classroom changed visibly. Students examined the presented case in groups, argued about it, asked the teacher questions, and presented conclusions to the class; the teacher moved between groups rather than addressing the class as a whole. Observed student activity rose to 66.66 per cent and observed teacher activity to 56.66 per cent. Questionnaire responses were consistent with the observation: students reported greater motivation, more opportunity to express an opinion, and easier comprehension through working on a problem.

3.2 What the Achievement Data Recorded

Table 1. Comparison between the baseline lesson and the action cycle

Indicator	Baseline (lecture)	Action cycle (PBL)
Mean score	26.66	30.66
Classical mastery	46.67%	40.00%
Students meeting the threshold	7 of 15	6 of 15
Students below the threshold	8 of 15	9 of 15
Highest score	32	37
Lowest score	20	25
Observed student activity	50.00%	66.66%
Observed teacher activity	43.33%	56.66%

Note. Percentages for observed activity express the proportion of indicators met on the observation schedule. Scores are reported on the instrument scale, which is stated in Section 2.

The table records a divergence that requires stating plainly. The mean rose by four points and both the highest and the lowest score rose by five, yet the number of students meeting the mastery threshold fell by one and the number falling below it rose by one. Taken together these indicate that the distribution widened: some students gained substantially enough to lift the mean, while others lost ground sufficiently to cross below the threshold. An improvement in the average therefore coexisted with a deterioration in the classical mastery rate, and the second is the measure by which Indonesian classroom action research conventionally judges success.

3.3 Interpreting the Divergence

The obvious reading is that the action failed, and Indonesian classroom action research would ordinarily either report a further cycle until the numbers improved or emphasise the participation gain and treat the mastery decline as a matter awaiting attention. Neither response is adopted here. The divergence is instead read as informative, for three reasons.

The first is that it corresponds to an established finding. The largest meta-analysis of problem-based learning reports a robust positive effect on students' skills together with a tendency toward negative results for knowledge acquisition, and observes that students taught this way acquire slightly less knowledge while retaining more of what they acquire (Dochy et al., 2003). What was observed in this classroom over one cycle is the short-run half of that pattern: the participation and reasoning the model elicits, without the retention advantage that becomes visible only over a longer period. A study lasting one cycle is structurally positioned to capture the cost and to miss the benefit.

The second concerns what the test measured. Meta-analytic work approached from the angle of assessment finds that the apparent effect of problem-based learning depends heavily on what is assessed, with effects strongest where assessment targets application rather than recall (Gijbels et al., 2005). The achievement test used here was the instrument already in use for this topic, designed for expository teaching and oriented toward recall of content. Students who spent the lesson arguing about a case rather than receiving and rehearsing content would be expected to perform less well on such an instrument regardless of what they understood. The mastery decline may therefore measure a mismatch between instruction and assessment rather than a deficit in learning.

The third concerns implementation. Observed teacher activity reached 56.66 per cent, meaning that the intended model was delivered at roughly half the fidelity the observation schedule specifies. This is a limitation and also an interpretive constraint: the finding concerns partially implemented problem-based learning, taught to students encountering it for the first time, and not the model as designed. Classroom action research methodology anticipates precisely this, which is why it prescribes iterative cycles in which implementation improves through reflection (Arikunto, 2015). One cycle does not permit that improvement.

Taken together, these three readings suggest that the Indonesian literature's uniformity may owe something to design. Studies that run cycles until the numbers improve, and that measure achievement with instruments built for the teaching being replaced, will tend to report success (Dochy et al., 2003; Gijbels et al., 2005). This study is offered as a single counter-instance rather than as a refutation.

3.4 The Finding in the Context of Islamic Religious Education

One consideration distinguishes this subject from those in which the meta-analytic evidence was gathered. Islamic Religious and Character Education is charged with forming disposition and not only with transmitting content, and a lesson in which previously silent students argued about bullying and gambling achieved something the subject values in its own right. Whether that achievement is worth a temporary decline in measured mastery is a judgement about the purposes of the subject rather than a question the data can settle, and it is raised here rather than answered.

The literature on Islamic teacher education is relevant to how that judgement might be made, arguing that the formation of the teacher as a moral and intellectual authority is inseparable from subject preparation (Memon et al., 2024). A teacher who shifts from transmitting content to facilitating argument about it changes the basis of their own authority in the classroom, and the present data suggest that this shift is demanding in ways that a single cycle does not resolve — observed teacher activity at 56.66 per cent reflects a teacher learning a new role, not a teacher failing at a familiar one

IV. CONCLUSION

In this class, one cycle of problem-based learning raised observed student participation from 50.00 to 66.66 per cent and lifted the mean achievement score from 26.66 to 30.66, while the classical mastery rate fell from 46.67 to 40.00 per cent and the number of students meeting the threshold declined from seven to six. Participation and achievement therefore moved in opposite directions, and the improvement in the mean coexisted with a widening of the distribution. Three considerations account for the divergence: the pattern corresponds to meta-analytic findings reporting gains in skills alongside reduced knowledge acquisition; the achievement instrument was designed for the expository teaching it replaced and oriented toward recall; and the intended model was implemented at roughly half the fidelity the observation schedule specifies, by a teacher and students encountering it for the first time.

Theoretically, the study supplies a classroom-level instance of a pattern established meta-analytically in higher education, in a subject and setting where it has not previously been reported. Practically, it suggests that teachers adopting problem-based learning in Islamic Religious Education should expect participation to respond before achievement does, and that schools evaluating such adoption on a single cycle of mastery data will reach conclusions the evidence does not support; it also suggests that assessment designed for expository teaching will understate what problem-based learning produces. The study is bounded severely by its size and duration — one class of fifteen students, one cycle of the action, one topic — and by the fact that implementation fidelity never reached an adequate level, which means the findings concern partially implemented problem-based learning rather than the model as designed; the questionnaire data are also reported without the numerical detail they warrant. Future work should run at least two cycles of the action so that implementation can improve through reflection, should pair a recall-oriented test with an application-oriented one so that the assessment question can be examined directly, and should follow students beyond the intervention period to establish whether the retention advantage reported in the meta-analytic literature appears.

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