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Implementation of Quiz-Based Assessment at the Start of Chemistry Lessons to Improve Student Attendance Discipline

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ABSTRACT

This classroom action research was conducted with the aim of helping to improve student punctuality in chemistry lessons through the use of summative quizzes at the beginning of each lesson. The action was carried out in class XD at Palu State High School 2, which consisted of 35 students, over two cycles. Data collection involved observation, teacher reflection, and documentation of student attendance. The results showed that student punctuality increased from 31.4 percent before the action to 52.9 percent in cycle I and 84.3 percent in cycle II. The summative quiz, which affected the final semester grade, was proven to increase student motivation and responsibility for learning, thereby improving their punctuality.

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INTRODUCTION

Time discipline reflects a student's responsibility and readiness to learn, which is an essential component of successful learning. Students who arrive early have better mental readiness, which has a direct impact on how effective their learning process is (Slameto, 2013). Nonetheless, tardiness is often a persistent problem that hinders the learning process.

According to pre-action observations in the XD class of SMA Negeri 2 Palu, around 68.6% of students are often late. This causes delayed learning and reduced focus of teachers and students. The delay in learning will have an impact on the implementation of learning strategies designed by teachers. Therefore, a non-punishment-oriented approach is necessary to realize the habit of discipline. Positive reinforcement is a suggested method to improve student discipline in various learning contexts (Dartiningsih & Daputri, 2020; Durrotunnisa & Cristinovita, 2021).

In terms of social and emotional learning (PSE), time discipline is related to self-awareness and self-management. To improve student discipline, conduct summative quizzes or assessments at the beginning of the lesson. Summative assessments are usually carried out in the middle or end of the semester to assess learning outcomes. However, there is evidence that summative evaluations can also be performed after a single unit of learning or subject is completed (University of Colorado Boulder, 2024; Institute of Teachers, 2024; Unismuh, 2023; UNP, 2023). After one unit of learning, a summative evaluation is carried out, which is

considered valid and relevant, as it still aims to evaluate how well the learning objectives are achieved. Summative assessments, unlike formative assessments, have an impact on students' final assessments and can increase their desire to arrive on time. The principle of positive reinforcement underlies this approach. Pleasant consequences or rewards are given in response to expected behavior (Haqq, 2019; Wadesango, 2022). Therefore, summative assessments not only serve as an assessment tool but also help improve disciplined behavior, encourage students to arrive on time, increase learning readiness, and keep the learning process running smoothly.

RESEARCH METHODS

This study uses the Kemmis and McTaggart Class Action Research (PTK) model which includes four stages: planning, implementation, observation, and reflection. The research was carried out in class XD of SMA Negeri 2 Palu with 35 students. The action is carried out by giving a short summative quiz at the beginning of the meeting (3–5 questions from the previous material). Quiz scores are calculated in daily assessments to foster learning responsibility. Data was collected through observation sheets, teacher reflection notes, and attendance recaps. Data analysis was carried out descriptively, quantitatively, and qualitatively.

RESULTS AND DISCUSSION

The results of the study are based on the pre-cycle stage, cycle I, reflection cycle I, and cycle II.

Pre-Cycle

The initial condition of discipline of class XD students showed that only 11 out of 35 students (31.4%) arrived on time, and 24 students (68.6%) arrived late. This shows that students are not aware of their time and responsibilities to study. The teacher then plans a summative quiz for positive reinforcement at the beginning of the lesson.

Stage/ Action		Number and Percentage of Attendance of 35 students		Number of Students	Information
		On time	Late		
Pre-Action-		11 Students (31.4%)	24 Students (68.6%)	35	Initial conditions before action
Cycle I	1	17 Students (48.6%)	18 Students (51.4%)	35	The application of the summative quiz for the first time has a score weight of 20%
	2	20 Students (57.1)	15 Students (42.9%)	35	Advanced sessions with the same action pattern
Average Cycle I-		18,5 (52,9%)	16,4 (47,1%)	35	-
Cycle II	1	27 Students (77.1%)	8 Students (22,9%)	35	After increasing the quiz weight to 50%
	2	32 Students (91.4%)	3 Students (8,6%)	35	Advanced corrective actions
Cycle II Average-		29,5 (84,3%)	5,5 (15,7%)	35	-

Cycle I

At the beginning of the lesson, the researcher used a short summative quiz that gave a score of 20% of the total daily score. The results showed an improvement in discipline: 17 students (48.6%) attended the first meeting and 20 students (57.1%) attended the second meeting. Cycle I averaged 52.9% on-time attendance, but even with this increase, there are still about 16 students who are not motivated to be on time.

Reflection Cycle I

Reflection shows that some students have not received the most full support. The researchers decided to improve the second cycle by increasing the weight of the quiz scores to fifty percent. Researchers assume this will have a greater motivational effect.

Cycle II

In cycle II, the quiz strategy at the beginning of learning is still applied with the weight of the score increased to 50%. The results showed a significant improvement: 27 students (77.1%) attended on time at the first meeting, and 32 students (91.4%) attended on time at the second meeting. The average on-time attendance in the second cycle was 84.3%. This improvement suggests that quizzes with high grade weights can encourage students to attend on time.

Reflection Cycle II

As shown in Cycle II, the increase in the weight of quiz scores has a positive impact on students' disciplinary behavior. Students become more aware that they must be present on time and the atmosphere of the class becomes more orderly. Teachers know that maintaining a balance between intrinsic and extrinsic motivation is essential for students to not only learn for grades, but also to learn with awareness.

CONCLUSION

The application of summative quizzes at the beginning of chemistry learning is effective in increasing the discipline of class XD students of SMA Negeri 2 Palu. Discipline increased from 31.4% in pre-action to 52.9% in cycle I and 84.3% in cycle II. Summative quizzes with high weight play a role as positive reinforcement that encourages student responsibility and motivation to learn. Teachers are advised to use this strategy proportionately in order to continue to foster students' intrinsic motivation.

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