

TEACHER PERFORMANCE IN CARRYING OUT COGNITIVE ASSESSMENTS IN MATHEMATICS LEARNING AT STATE JUNIOR SCHOOL IN THE DISTRICT OF MAKASSAR CITY

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Abstract

This research uses a qualitative approach with the aim of knowing the teacher's performance in conducting assessments in accordance with learning mathematics to achieve certain competencies in public junior high schools in the Makassar district. Data collection technique using documentation technique, observation technique, and interview technique. The research subjects were 3 mathematics teachers at Rappocini Middle School, Makassar District. The results of the study show that the teacher's performance in planing cognitive assessments in mathematics at state Junior High School in the makassar city district is able to develop assessments tools that are in accordance with learning objective to achieve certain comptencies as written in the lesson plans. Meanwhile, teacher performance in carrying out cognitve assessments in the subject of mathematics in public middle schools in the district of Makassar city, namely carrying out assessments with various assessmnets technique and announcing the results and their implications for students, regarding the level of understanding of the learning material that has been and will be studied. Teacher performance in analyzing appropriate cognitive assessments by learning mathematics to achieve certain competencies in state Junior High School throughout the District of Makassar City, namely partly analyzing the results of the assessments to identify diffuclt basic indicators/competencies so that the strengths and weaknesses of each studnets are known for remedial and enrcihment purpose. The teacher's performance in reflecting on the results of cognitive assessments in accordance with learning mathematics achive certain competencies in public middle schools in the district of Makassar City, namely that they have not maximaized/utilized input from students so that they do not reflect enough to imprive learning.

Keywords: Learning, Mathematics, Teachers, Performances, Assessment, Cognitive.

INTRODUCTION

In the world of education in Indonesia, there are still many teachers who carry out assessments by only looking at the results of student assignments and tests. This is considered insufficient to see the level of student ability because not all students have the same type of ability so teachers need an assessment tool that can cover all aspects of student abilities, including students' cognitive abilities. With the teacher's ability to develop an assessment plan, it is hoped that the teacher will be able to carry out a fair assessment and lead to improvement. So that students feel not harmed by the assessment process carried out by the teacher and of course it will automatically increase student interest and achievement.

Assessment of learning outcomes by educators is carried out continuously. Assessment of student learning outcomes is one of the abilities that must be possessed by a teacher, which is included in pedagogic competence. Assessment of learning outcomes by educators is carried out on an ongoing basis to monitor the process, progress, and improvement of results in the form of daily tests, midterm tests, final semester tests, and grade increase tests. To assess the achievement of student competence, material for preparing progress reports on learning outcomes, and improving the learning process.

Teacher performance has certain specifications. Teacher performance can be seen and measured based on specifications or competency criteria that must be owned by each teacher. The form of teacher performance behavior in question is the teacher's activities in the learning process. Educators are professionals whose job is to plan and carry out the learning process, assess learning outcomes, conduct mentoring and training as well as conduct research and community service, especially for educators in tertiary institutions (Law No. 20 of 2003 concerning the National Education System, article 39 paragraph (2)).

Other information explains the standard of teacher performance in carrying out their professional duties, the teacher is obliged to plan learning, carry out quality learning processes and assess and evaluate learning outcomes. The main task of the teacher which is manifested in teaching and learning activities is a form of teacher performance. (Law No. 14 of 2005). The teacher's performance can be seen when he carries out learning activities in class including his preparation both in the form of semester programs, syllabus, and lesson plans. The terms mathematics (English), mathematic (Germany), mathematique (French), matematico (Italian), matematiceski (Russian), or mathematick/wiskunde (Dutch) come from the Latin word *mathematica*, which was originally taken from the Greek word, *mathematike*, which means "relating to learning". The word has the root *mathema* which means knowledge or science. So, based on etymology (Elea Tinggih in Suherman, 2003) the word mathematics means "knowledge obtained by reasoning".

Two important things that are part of the goals of learning mathematics are the formation of traits, namely patterns of critical and creative thinking. Students must be accustomed to being given the opportunity to ask questions and give opinions, so that it is expected that the process of learning mathematics is more meaningful. In learning mathematics at school, teachers should choose and use strategies, approaches, methods, and techniques that involve students actively learning, both mentally, physically, and socially. So, the teacher as a teaching staff must pay attention to the development of students, especially junior high school students as developing individuals. Where a person's learning ability will be influenced by the level of development and the breadth of experience he has.

Based on the explanation above, it can be concluded that assessment can be interpreted as a systematic process to determine the value of something (objectives, activities, decisions, performance, processes, people, objects, and others). A good assessment tool is one that can measure the success of the educational process precisely and accurately. Basic competency assessment is carried out based on competency achievement indicators that contain one or more domains (cognitive, affective, and psychomotor). In this case Benjamin S Bloom and his colleagues reveal the types of goals that can be assessed in schools with the title Bloom's taxonomy, namely the cognitive domain, the affective domain, and the psychomotor domain (Ali and Khaeruddin, 2012: 6).

Related to the cognitive domain, namely the ability to think, which includes intellectual abilities, ranging from the ability to remember to the ability to solve problems. Bloom divides and hierarchically arranges the levels of cognitive learning outcomes starting from the lowest and simplest, namely memorization, to the highest and most complex, namely evaluation. The higher the level, the more complex and mastery of a level requires mastery of the previous level. The six levels are memorization (C1), understanding (C2), application (C3), analysis (C4), synthesis (C5) and evaluation (C6). (Purwanto, 2013:50)

About the affective domain, Krathwohl, Bloom and friends have developed a taxonomy of the affective domain which can be used in classifying test subjects for forms of affective behavior in 5 (five) levels, namely acceptance, participation, assessment/determination of attitudes, organization and formation. lifestyle (Ali and Khaeruddin, 2012: 8-9). In relation to the psychomotor domain, according to Harrow, psychomotor learning outcomes can be classified into six: reflex movements, basic movements, perceptual abilities, physical abilities, skill movements, and wordless communication. (Purwanto, 2013: 52-53) These three domains are characteristics human beings and in the field of education these three domains are learning outcomes.

Cognitive realm is a realm that includes mental (brain) activity. According to Bloom, all efforts related to brain activity are included in the cognitive domain. The cognitive domain relates to thinking skills, including the ability to memorize, understand, apply, analyze, synthesize, and evaluate abilities.

According to Bloom's cognitive domain, there are six aspects or levels of thinking processes, starting from the lowest level to the highest level. The six levels or aspects in question are: a. Knowledge (knowledge) C1, is knowledge concerning the behavior of students whose emphasis is on recalling material or materials that have been studied previously. b. Understanding (comprehension) C2, is the ability to absorb the meaning of the material or materials that have been studied. Application (application) C3, is the ability to use something that has been learned in a new concrete situation. c. Analysis (analysis) C4, is related to understanding and application. d. Synthesis (synthesis) C5, includes the ability to unite elements, parts and so on so that they form a whole. e. Evaluation (evaluation) C6, includes the ability to form an opinion about something or several things along with accountability for that opinion based on certain criteria. (Ali & Kheruddin, 2012: 6-7)

Ability can be interpreted as something that is controlled by someone who is part of himself, so that person can carry out cognitive, affective, and psychomotor behavior as well as possible. Furthermore, the teacher's ability to make cognitive assessment instruments is based on the pedagogic competencies that must be owned by a teacher. Pedagogic competence includes a) understanding of students, b) planning of lessons, c) implementation of learning, d) evaluation of learning outcomes, e) development of students to actualize their various potentials. Thus, the teacher's ability to make cognitive assessment instruments is something that must be mastered by teachers in making cognitive assessment instruments and implementing these assessments in mathematics subjects at school. What the teacher must master is understanding indicators in making cognitive assessment instruments.

RESEARCH METHODS

This research is ex post facto research using a qualitative approach with the data revealed coming from the teacher's performance in planning and carrying out cognitive assessments and is described as a whole. The research subjects were 4 mathematics teachers in the Rappocini sub-district who were actively teaching in the 2021/2022 academic year, spread across 3 public schools namely SMPN 13, SMPN 33 and SMPN 21. The research was conducted from July to September 2022.

The focus of the research examines teacher performance in carrying out cognitive assessment in mathematics learning algebraic material divided into 4 dimensions, namely 1) cognitive assessment planning, 2) cognitive assessment implementation, 3) Analysis of cognitive assessment results, 4) reflection on cognitive assessment results.

The instruments used were document study guidelines, observation guidelines, and interview guidelines. The data that has been collected includes observation results, documentation results and interview results which were analyzed qualitatively to answer "whether the developed observation sheets, document study sheets and interview guidelines can describe teacher performance in planning cognitive assessment in mathematics learning in State Junior High Schools in the Rappocini District" Makassar city.

RESULTS DAN DISCUSSION

The results of the study show that the performance of mathematics teachers in state junior high schools in Makassar City is:

- a) In planning cognitive assessment in mathematics is quite good. The four subjects revise the syllabus every year and the RPP at the beginning of each semester or at least before the KD is taught, all components related to assessment such as KD, indicators, learning objectives and item items are contained in the RPP and have appropriate item items. Only one subject does not include a rubric or scoring guidelines in the lesson plan.
- b) In carrying out cognitive assessments in mathematics, the three subjects carry out assessments by carrying out assessments in accordance with learning objectives, the questions used are in accordance with learning objectives, using appropriate techniques and forms, individual assessments. Three subjects use scoring guidelines / rubric assessment in lesson plans, assess by noting the strengths and weaknesses / mistakes of students in learning, convey the results of the assessment of learning to students individually.
- c) In analyzing cognitive assessments that are in accordance with learning mathematics to achieve

certain competencies, namely partly analyzing the results of the assessment to identify difficult basic indicators/competencies so that the strengths and weaknesses of each learner are identified for remedial and enrichment purposes.

- d) In reflecting on the results of cognitive assessments that are in accordance with learning mathematics to achieve certain competencies in Public Middle Schools in the District of Makassar City, namely that they have not maximized/utilized input from students so that they do not reflect enough to improve further learning.

CONCLUSION AND SUGGESTION

Conclusion

The teacher's performance in carrying out cognitive assessments in mathematics learning in public junior high schools in Makassar District, is:

1. Teacher performance in planning cognitive assessments in accordance with learning mathematics to achieve certain competencies in State Junior High Schools in the Makassar City District, namely being able to develop assessment tools that are in accordance with learning objectives to achieve certain competencies as written in the RPP.
2. Teacher performance in carrying out cognitive assessments in accordance with learning mathematics to achieve certain competencies in Public Middle Schools in the Makassar City District, namely carrying out assessments with various assessment techniques, and announcing the results and their implications for students, regarding the level of understanding of the learning material that has been and will be studied.
3. Teacher performance in analyzing cognitive assessments that are appropriate to learning mathematics to achieve certain competencies in State Junior High Schools throughout the Makassar City District, namely partly analyzing the results of the assessment to identify difficult basic indicators/competencies so that the strengths and weaknesses of each student are known for remedial and enrichment purposes.
4. The teacher's performance in reflecting on the results of cognitive assessments in accordance with learning mathematics to achieve certain competencies in State Junior High Schools in the District of Makassar City, namely not maximizing/utilizing input from students so that they do not reflect enough to improve further learning.

Ssuggestion

- a. Teachers are expected to always carry out cognitive assessments by compiling appropriate assessment tools, carrying out assessments with various techniques and forms of instruments, analyzing assessment results to identify difficult basic competencies so that the strengths and weaknesses of each student are known for remedial and enrichment purposes. input from students and reflect on it to improve further learning.
- b. To carry out optimal assessments, teachers should be given training, motivation, and assistance in implementing them at school.
- c. For future researchers who will conduct the same research should pay attention to the limitations of this research so that it can be of higher quality and more perfect.

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