Implementation Of Diagnostic Assessments In Learning Design For Optimal Learning Outcome

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Abstract

Learning as a process towards changing knowledge, attitudes and behavior of students with the intermediary of teachers as education servants. The teacher's role in delivering learning materials is often constrained by several things, one of which is the ability of students to absorb material. This is because the teacher does not know the strengths and weaknesses of the students. For this reason, researchers conducted research to determine teachers' understanding of diagnostic assessments and how teachers use information regarding students' diagnostic assessment results in learning design to obtain optimal learning outcomes. This qualitative descriptive research was conducted using interview techniques with 5 teachers from different elementary schools. From the results of the study, it was found that the teacher's understanding of the diagnostic assessment was quite low, and the use of the results of the information from the implementation of the diagnostic assessment at the beginning of learning as the basis for preparing the learning design received less attention.

Keywords: diagnostic assessment, learning desain,

INTRODUCTION

Learning is a form of a conscious effort to develop oneself as a whole. According to M. Sobry Sutikno, learning is an effort process carried out by a person to get a new change as a result of his own experience in interaction with his environment. (Ridha Albaar, 2020) Comprehensive because it touches all aspects of both physical, spiritual, and psychological or cognitive, affective, and psychomotor aspects. In learning activities, these three aspects must be developed together with a balanced and enjoyable portion.

Fun learning activities will have an impact on the sustainability and success of learning. The meaning of learning will be stored in the memory of students for a long time. The integration of the development of cognitive, affective, and psychomotor aspects coupled with interesting and fun learning strategies will be a challenge for educators to continue to seek knowledge regarding learning design in the classroom.

To design learning that is fun and meaningful, educators need to know the strengths and weaknesses of students.

This is intended so that in designing the learning that educators do will be right on target by the development of students including cognitive abilities, family background, absorption, and learning methods of students.(Wahyudi et al., 2022)

Diagnostic assessment is one way of detecting the weaknesses and shortcomings of students both cognitively and non-cognitively. (Rachmawati & ..., 2022). Diagnostic assessments that are often carried out are to detect the success of learning or to diagnose the weaknesses and strengths of students in one learning material or to be included in the assessment for learning. Many of the scientific articles focus on carrying out diagnostic assessments at the end of the lesson.

Several scientific articles discuss diagnostic assessments such as the scientific journal Jere Confrey Meetal Shah with the title Examining instructional change at scale using data from diagnostic assessments built on learning trajectories in 2021. This journal discusses how teachers use the results of diagnostic assessments from students

then to design, implement, and evaluate the lesson studies conducted (Confrey & Shah, 2021). In this study, the research subjects were teachers from grades 6 and 7, who then evaluated the results of the lesson study through learning videos that had been done by the teachers. The result of the research is the need for teacher sharpness in interpreting the results of the diagnostic assessment data so that it can be used as a basis for determining the learning strategies to be carried out.

Another international journal, namely the writings of Kyong Mi Choi, Jihyun Hwang, Jessica Jensenc and Dae S. Hong with the title Teachers' use of assessment data for instructional decision making, is also a reference material where the research subjects are teachers with data collection techniques in the form of interviews. . From the results of this study, it was found that the teacher reacted excessively to the results of the assessment and was not supported by the teacher's ability in pedagogic knowledge so that he could not respond appropriately to the results of the diagnostic assessment data (Choi et al., 2022).

Based on previous studies conducted concerning diagnostic assessments of understanding concepts (Soeharto, 2021), (Anggara, 2021), (Brendefur et al., 2018),(Tang & Zhan, 2021) diagnostic assessments with problem-solving (Setyawan & Sukestiyarno, 2018), (Arifin et al., 2018), (Putro, 2021),(Akbay et al., 2018), (Ketterlin-Geller et al., 2019), (Vermeulen et al., 2020), (Tang & Zhan, 2021) and measurement of learning outcomes (Cook et al., 2022) (Clements et al., 2022). These studies raise the problem that the diagnostic assessment carried out is only used as material for improvement and enrichment and to measure learning outcomes only.

The achievement of optimal learning outcomes is also influenced by the learning design, " design is a process making dream come true" (Magdalena & Dkk, 2020) therefore a diagnostic assessment carried out at the beginning of learning which then uses the assessment results data in designing learning designs will make learning run effectively because it is right on target.

Based on this thought, in this study, the purpose of this study is to determine the teacher's understanding of diagnostic assessments and how teachers carry out diagnostic assessments and use assessment data in designing learning designs to achieve optimal learning outcomes.

METHOD

This study uses a qualitative descriptive study conducted in October 2022. The independent variable in this study is a diagnostic assessment with the dependent variable being learning design and the intervening variable being learning achievement. This study involved 7 elementary school teachers in Malang Regency and City as a population. The research procedure is to observe the implementation of learning and conduct interviews with several teachers, namely 2 teachers from Malang City and 5 teachers from Malang Regency. From 7 teachers , 2 were male teachers and 5 female teachers with an age range of 30-50 years. The research instrument used was a structured interview sheet with 15 questions, a Learning Implementation Plan sheet, and an observation sheet.

RESULT AND DISCUSSION

From the results of conducting field interviews with these teachers, it was found that 5 teachers had heard of the term diagnostic assessment from several sources including social media, curriculum training, and information received at college. For the question of the purpose of carrying out a diagnostic assessment, the information obtained from the diagnostic assessment, and information on the results of the diagnostic assessment, 7 teacher answers stated that the diagnostic assessment is used to assess or measure learning outcomes, the information obtained from the diagnostic assessment only relates to the attitude aspect of the problematic student. not related to the cognitive aspect.

While the question regarding learning design, the answers from 6 teachers stated that they were almost similar to the understanding of the Learning Implementation Plan (RPP) not

a specific answer about the notion of learning design, in particular, the components in it. However, of the 7 teacher answers, 2 teacher answers stated the components of the learning design with 80% correct answers. This is supported by the results of observations on the lesson plans used by teachers, in their preparation it does not show any use of the results of diagnostic assessment information, both information regarding aspects of attitude, cognitive and psychomotor. This means that the inclusion of these specs is not based on field data obtained by the teacher from observations or questions and answers with parents.

For questions regarding the relationship between learning design and learning success, 6 out of 7 teacher answers were answered with "there is a relationship" in this case the teacher stated that learning success was also influenced by learning design. Teachers have not thoroughly designed learning by integrating assessment data or information obtained, it can be seen that the designs designed are only monotonous or refer to the templates commonly used.

In a previous study on diagnostic assessments (Kramer et al., 2021) it was discussed how the diagnostic assessment was carried out to design TPACK-based learning. Based on this research, the results of the diagnostic assessment carried out are processed by the teacher to design learning designs by developing aspects of technology, pedagogy, content, and knowledge.

By comparing the article references above with what is in the field, it is found that teachers do not understand diagnostic assessments yet so they have not optimally implemented or used the results of diagnostic assessment data in designing their learning designs. For this reason, it is necessary to carry out a special assessment in order to obtain data or materials in the preparation of learning designs that are adapted to the conditions of students and strategies, and learning approaches.

The limitation of this study is that there has not been any observation of learning outcomes after carrying out a diagnostic assessment and using the

findings in designing learning that is in accordance with the needs of students.

CONCLUSION

Based on the result of the research that had been done in two cycles in the research entitled using comic strips media to improve students' writing in Recount Text, It can be concluded the students ability in writing recount text improved after being taught by using comic strips media, they could write easily without consuming more time. They are able to write their experience. It showed by the score of cycle 1 and cycle 2. In the pre-cycle using diagnostic test of students' writing result were 56.82 students still have classified poor score. It means that the value of students' writing result was poor. In the cycle I of students' writing result were 63.37 students still have fairly score. It means that the value of students' writing result was average, but based on criteria assessment, students are still fair. Cause students' writing result is not reach maximal so the researcher decided to get

the cycle. In the cycle 2 of students' writing result were 77.18 students have good score. It means that the value of students' writing result was good enough. So, the improvement of the students' writing ability between d- test to cycle I was 11.51% and the improvement cycle I to cycle II was 21.85%. Based on the percentages above It helped the students to write a recount text easily and accurately, because they could write the parts of generic structure ad language features there are significant improvement the students' writing ability through Comic Strips Media.

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