

The Ability of Javanese Language Teachers in Semarang City to Conduct Cognitive Diagnostic Assessments

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ABSTRACT

Keywords:

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There is still much variation in how people understand diagnostic assessment and how it is done. This is also true for Javanese language teachers in Semarang. This study aims to describe how well Javanese language teachers in Semarang can do diagnostic assessments. The data for this study are from documents about diagnostic assessments done by Javanese language teachers in Semarang. The data sources for this study were Javanese language teachers in Semarang City. Data were collected using document analysis, questionnaires, and interviews. The instruments used were data cards, questionnaires, and interview guidelines. Data were validated using triangulation techniques. The validated data were then analyzed using content analysis, which involved categorizing the data into the diagnostic assessment preparation, implementation, and follow-up stages. The study results showed that 32 (71.1%) respondents had carried out diagnostic assessment preparation and implementation stages. Fifteen (33.3%) respondents had carried out follow-up activities. This indicates that not all respondents who had carried out the diagnostic assessment preparation and implementation stages also performed follow-up activities. The following recommendations were made based on these results. Cognitive diagnostic assessment instruments must be designed for each topic with varying difficulty levels. Cognitive diagnostic assessments need to be conducted regularly, especially for new material. Follow-up activities should be conducted. This is to integrate several learning components, including diagnostic assessment, differentiated learning, formative assessment, and summative assessment.

INTRODUCTION

Diagnostic assessment is one part of the *Merdeka* Curriculum. Diagnostic assessment aims to identify students' weaknesses, strengths, knowledge, skills, and characteristics over a specific period (Zhan et al., 2021; Fan et al., 2021; Tang & Zhan, 2021). Teachers can further utilize the results of the diagnostic assessment. Based on the diagnostic assessment results, learning can be designed according to the competencies and conditions of the students and what needs to be improved (Bradshaw & Levy, 2019; Paulsen & Valdivia, 2022). This will positively impact teachers, who can adjust and determine the learning methods or models to deliver learning outcomes according to the students' abilities. This supports the future paradigm of education, which is enjoyable learning that benefits the development of skills, character, and psychosomatic well-being (Kizi & Shadjalilovna, 2022).

In its implementation, diagnostic assessment consists of two types: cognitive and non-cognitive diagnostic assessment (Rahman, 2022). Each type has different objectives. The Ministry of Education and Culture (2022) sets the objectives of non-cognitive assessment to determine: students' psychological and social-emotional well-being, activities during home-based learning, family conditions, social background, learning styles, character, and interests. Cognitive diagnostic assessment, on the other hand, aims to identify students' competency achievements, adjust classroom learning to the average competency of students, and provide remedial classes or additional lessons to students whose competencies are below average. Procedurally, both non-cognitive and cognitive

diagnostic assessments follow the same implementation procedures, including preparation, implementation, and follow-up (Ardiansyah et al., 2023; Maut, 2022; Nasution, 2022).

Various parties, especially teachers, may not fully realize this desired condition. Teachers remain hesitant in conducting diagnostic assessments. A study (Laulita, 2022) found that although 90.91% of teachers know the independent curriculum, 59.09% of respondents still express uncertainty about implementing it. Their knowledge and understanding of the *Merdeka* Curriculum are primarily obtained through social media (68.18%). After conducting a more in-depth study on diagnostic assessment, the results align with their understanding of the *Merdeka* Curriculum. A total of 63.64% of respondents were already familiar with diagnostic assessment; 45.45% of respondents had conducted diagnostic assessment; 40.91% of respondents did not fully understand and felt they had never conducted diagnostic assessment; and 77.27% of respondents had never participated in socialization or training related to diagnostic assessment. Another study by Yusron (2024) states that teachers find it challenging to develop diagnostic assessment instruments and that diagnostic assessments have not provided good student feedback. This is because diagnostic assessments have not been well planned and implemented in a structured manner.

Similarly, the researcher learned about implementing diagnostic assessments from interviews with several Javanese language teachers in Semarang City. The conclusions that the researcher gathered from the interview results are as follows. Diagnostic assessment has been known for a long time, but has only been implemented when applying the independent curriculum. As in previous ministry programs, there was training and dissemination, but this diagnostic assessment did not exist. Teachers learned independently to formulate the instruments. This made teachers unsure whether the instruments they had developed met the criteria. There is no technical guidance or best practices in developing diagnostic assessment instruments, especially for Javanese language lessons. Some teachers equate diagnostic assessment with prompt questions or pre-tests. Teachers seek and discover the concept and form of diagnostic assessment on their own to meet the requirements of independent learning. Teachers are expected to seek information and exchange experiences regarding their teaching activities actively. However, the opposite may also occur. The diagnostic assessment products produced by teachers merely fulfill institutional requirements. The quality and follow-up of these products are not yet indicators of their performance. Therefore, the procedures for conducting diagnostic assessments by Javanese language teachers in Semarang City must be further studied.

RESEARCH METHOD

This qualitative study examines documents using a naturalistic approach (natural setting) because the research was conducted under natural conditions (Sugiyono, 2008). This study was conducted on natural objects. Natural objects are objects that develop as they are, without being manipulated by the researcher, and the researcher's presence does not affect the dynamics of the object. The data collected in this study is the suitability of the diagnostic assessment instruments developed by Javanese language teachers with the stages of diagnostic assessment implementation. The data is sourced from diagnostic assessment instruments developed by Javanese language teachers in Semarang City.

Data was collected using document analysis techniques with intensive reading, questionnaires, and interviews. The data was read intensively and then entered into data cards. Teachers were given questionnaires to determine the process of developing diagnostic assessments. The questionnaires contained the respondents' identities, diagnostic assessment procedures, and examples of diagnostic assessment instruments developed by teachers.

Table 1. Instrument Grid

No	Stage	Activity Indicators
1	Preparation	a. Making an assessment schedule b. identifying assessment materials c. developing simple questions
2	Implementation	a. diagnostic assessment topics b. assessment implementation time
3	Follow-up	a. processing assessment results b. dividing students into result groups c. topic learning assessment d. conducting formative assessment

Interviews were conducted with some respondents to validate the data. The research instruments used data cards, questionnaires, and interview guidelines. The collected data was then analyzed using content analysis. After the content analysis was presented in a table, the suitability of the assessment implementation stages was analyzed. This table drew conclusions regarding which stages had been and/or had not been fulfilled in developing diagnostic assessment questions for the Javanese language subject.

RESULTS AND DISCUSSION

In this section, the researcher presents the results obtained from the field through document review, questionnaires, and interviews regarding the diagnostic assessment procedures carried out by Javanese language teachers in Semarang City. The results are grouped into three diagnostic assessment stages, including the preparation, implementation, and follow-up stages (Laila, 2024). These results were obtained from collecting 45 diagnostic assessment instruments, distributing questionnaires to 45 respondents, and conducting interviews with 15 respondents. In general, the results obtained are illustrated in Table 2.

Table 2. Implementation of Diagnostic Assessment by Javanese Language Teachers in Semarang City

No	Assessment stage	Number		Distribution (%)
		Yes	No	
1	Preparation	32	13	71,1
2	Implementation	32	13	71,1
3	Follow-up	15	30	33,3

Preparation Stage of Diagnostic Assessment

The preparation stage for the diagnostic assessment activity, as exemplified by the Ministry of Education and Culture (2022), includes three activities. These three activities are: (1) creating an assessment implementation schedule, (2) identifying assessment materials based on the simplification of basic competencies provided by the Ministry of Education and Culture, and (3) compiling simple questions. Simple questions include two questions appropriate for the class level on new learning outcomes, six questions on topics one grade level below, and two on topics two grade levels below.

The results of the analysis conducted by the researcher indicate that 32 respondents (71.1%) have prepared for diagnostic assessment activities. These results were obtained through a questionnaire and confirmed by interview responses from the respondents. However, the preparations made by the respondents did not fully meet the criteria set by the Ministry of Education and Culture (2022). For example, respondents 5, 7, and 18 did not include topics from lower grades when developing simple questions. The questions were entirely taken from the learning outcomes to be taught in the current grade. Regarding the scheduling of diagnostic assessments, respondents who prepared the assessment schedule mostly did so at the beginning of the semester. This means that respondents conducted diagnostic assessments only once per semester. The identification of assessment materials conducted by respondents varied. The materials used for diagnostic assessments and analyzed by the researcher were diverse.

Diagnostic Assessment Implementation Stage

The results of the analysis of the implementation of diagnostic assessments in Javanese language subjects in Table 1 show that 71.1% of respondents have carried out diagnostic assessments. This finding differs from a study by Laulita (2022), in which only 45.45% of respondents had ever done diagnostic assessments. This difference is significant, meaning that training related to understanding and developing diagnostic assessments influences teachers' commitment to conducting diagnostic assessments. This also differs from Yusron's (2024) study, which states that teachers have difficulty developing diagnostic assessment instruments. The following description is detailed based on several aspects, namely: learning outcome topics and implementation time.

From learning achievement topics, the assessment instruments developed by Javanese language teachers in Semarang City are diverse. There are 12 (37.5%) respondents who developed instruments and conducted diagnostic assessments on the topic of Javanese script. This diagnostic assessment on Javanese script covers reading and writing elements. 15 (46.9%) respondents developed and implemented the text or discourse comprehension topic. This topic is interesting and relatively easy to develop diagnostic assessment instruments for. The diagnostic assessment instruments developed include reading elements. Although there are speaking elements in the text/discourse topic, no respondents developed diagnostic assessment instruments. The *pacelathon* topic was developed and implemented by 3 (9.4%) respondents. The diagnostic assessment form for the *pacelathon* topic consists of dialogue texts in various forms, including greetings, verbs, and nouns belonging to the person being spoken to or discussed. These words were then used as questions with options indicating the correct application. Additionally, 2 (6.25%) respondents developed and implemented mixed-topic diagnostic assessments. Mixed topics are a collection of several topics and elements. This instrument is like a

comprehensive test question containing several topics/materials. For example, respondent 9 developed a diagnostic assessment instrument consisting of *undha-usuk tembung*, greetings in the *krama* register, Javanese script, and paragraph writing. This form of diagnostic assessment does not meet the instrument development criteria. However, teachers believe that the questions developed are functional for grouping students.

The timing of the diagnostic assessments conducted by the respondents also varied. The results of the analysis related to the timing of the assessments are summarized as follows.

(1) Respondents conducted diagnostic assessments once at the beginning of the semester at the start of the academic year. (2) Respondents conducted diagnostic assessments once in the middle of the semester when changing learning outcome materials. (3) Respondents conducted diagnostic assessments more than once in one semester.

Diagnostic assessments conducted at the beginning of the semester at the start of the academic year were carried out by respondents who compiled diagnostic assessment instruments with mixed topics. This assessment was conducted to comprehensively determine the initial abilities of students in the Javanese language subject, especially new students. Respondents who conducted diagnostic assessments once in the middle of the semester were respondents who were not yet confident with the diagnostic assessments they had developed. This occurred in respondents whose understanding of diagnostic assessments was still lacking, but who tried to develop and conduct diagnostic assessments. The chosen topics were also relatively easy to develop diagnostic assessments for. Respondents who were already proficient and accustomed to developing and implementing diagnostic assessments were those who conducted diagnostic assessments several times in one semester. These respondents could already be models for their peers in developing and implementing diagnostic assessments.

Follow-up Stage of Diagnostic Assessment

The next stage is the follow-up of the diagnostic assessment results. The diagnostic assessment results should be followed according to the students' level of understanding after the assessment (Insani et al., 2023). Fifteen respondents (33.3%) followed up on the diagnostic assessment results. Following up on the results of a diagnostic assessment is not easy. The above results reinforce Yusron's (2024) finding that diagnostic assessments have not provided good student feedback. Follow-up on diagnostic assessment results is aimed at three groups of students: those who obtained average scores, those who obtained below-average scores, and those who obtained above-average scores.

Students who achieve average grades follow the learning process by the objectives for the specified phase. Students who score below average will be given guidance and remedial assistance to address competencies that are not yet optimal. In contrast, students who score above average will be encouraged to participate in more in-depth learning or enrichment activities (Forniawan, 2024). The respondents in this study have not fully implemented Forniawan's opinion. Respondents are still in the process of processing the results of the diagnostic assessment. The results of this processing are then categorized into groups that fully understand, partially understand, and do not understand. At this point, respondents have not taken further action, such as providing remedial assistance, following the phase material, or providing enrichment. The results are still limited to information related to student abilities known by teachers.

A more structured follow-up is the incorporation of diagnostic assessment results into teaching modules. These teaching modules clearly outline differentiated learning programs. The elements of differentiation are clearly stated. The creation of teaching modules that already include differentiated learning has not been based on processing diagnostic assessment results. Teachers still understand diagnostic assessment and differentiated learning separately, so there is no synchronization between the two.

CONCLUSION

Based on the analysis of the ability of Javanese language teachers to carry out diagnostic assessments, the following conclusions can be drawn. Javanese language teachers in Semarang City have generally performed diagnostic assessment procedures for preparation, implementation, and follow-up. The results are detailed: the preparation and implementation stages have reached 71.1%, while the follow-up stage has reached 33.3%. The follow-up carried out by teachers has not been integrated with the diagnostic assessment results.

Based on these results and conclusions, it is recommended that cognitive diagnostic assessment instruments be designed for each topic with a more varied level of difficulty. This is intended to provide a more comprehensive understanding of students' abilities. As a follow-up to the cognitive diagnostic assessment results, it is necessary to conduct assessments periodically for each new material to be delivered so that the initial knowledge level of students can always be measured. Reinforcement activities are carried out at the follow-up stage. This combines several learning components, including diagnostic assessment, differentiated learning, formative assessment, and summative assessment.

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