

Information Communication and Technology (ICT)-Based PAI Learning Innovation Based on The Application of Non-Cognitive Diagnostic Assessment

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Abstract

Non-cognitive diagnostic assessment is one of the assessments that must be implemented in the independent curriculum. From non-cognitive assessments, teachers can create learning innovations. This study aims to examine PAI learning innovations based on the application of non-cognitive diagnostic assessments. This research is a qualitative research with a case study research type. Based on the results of the study, it can be concluded that (1) Non-cognitive diagnostic assessment is carried out in accordance with the stages and aims to determine the learning styles and interests of students. (2) ICT-based PAI learning innovation is made based on the application of diagnostic assessment. The results of this study indicate that ICT-based PAI learning can be a solution for PAI teachers who have been experiencing difficulties and stagnation in the learning process, especially the aspect of learning methods.

Keywords: Innovation, Non-Cognitive Diagnostic Assessment

A. Introduction

Learning innovation is a teaching and learning process designed by teachers that is new, not what is usually done, and aims to facilitate students in building their own knowledge in the context of a process of behaviour change towards a better direction according to their potential and differences (Muhali, 2019). Thus, learning innovation can be defined as a series of activities carried out and developed by educators in designing learning to facilitate students in acquiring knowledge through the achievement of innovative skills.

PAI learning innovation is very necessary. One of them is ICT-based learning (Information Communication and Technology) as a new alternative in the learning process of Islamic Education so that problems can be solved and the desired goals can be realised. However, the form of application of ICT-based Islamic education will be studied and designed according to the needs of students. ICT-based

Islamic education learning here means the process of learning Islam that tries to solve educational problems by utilising all available resources as effectively as possible. However, it is more emphasised on the utilisation of ICT, especially the internet as a medium for learning Islamic religious education.

The Merdeka Curriculum in its implementation is challenging for schools. This is based on the Covid-19 pandemic which has caused learning loss (R. Donnelly & R. Patrinos, 2021). The challenge of implementing the Merdeka Curriculum lies at the core of the educational process, namely the teaching and learning process. One of the important points in the Merdeka Curriculum is the evaluation or assessment system. The assessment in the Merdeka Curriculum prioritises the diagnostic assessment process.

Diagnostic assessment is divided into two, namely cognitive assessment and non-cognitive assessment. Cognitive assessment is carried out to identify how far the competencies that students have obtained. Meanwhile, non-cognitive assessment has the aim of assessing psychological aspects related to the readiness to learn of each learner (Ulfa Laulita, Marzoan, 2022). Diagnostic assessment then becomes important for teachers in determining the teaching and learning process by taking into account the learning styles of learners and the independent curriculum.

Teachers hold an important responsibility in diagnosing students' learning process. Moreover, it is aided by the curriculum that requires implementing diagnostic assessments. Often teachers are negligent in knowing the initial abilities of their students. So what happens is limited to the transfer of knowledge only. Teachers do not know the weaknesses of their students which leads to low mastery of the material.

Diagnostic assessment can be used as a basis for providing appropriate treatment or follow-up for students (Rachmawati, 2022). The treatment and follow-up can be in the form of learning innovations. Teachers can make learning innovations that are in accordance with the needs of students and the times. For example, in PAI subjects within the scope of elementary schools (SD) which are the

fundamentals of education. Teachers must then make learning innovations for students so that PAI subjects are not seen as old-fashioned.

In a research article by Ermiyanto, DKK. with the title Diagnostic Assessment of Learning Styles of Grade VII Students at SMPN Padang Panjang, it is explained that non-cognitive diagnostic assessment is one of the main assessments that must be implemented in the independent curriculum. This study aims to reveal the learning styles of seventh grade students at SMPN 4 Padang Panjang. The research was conducted quantitatively by going directly to the field to collect research data. Quantitative research is a research method related to data in numerical form. The results of the study illustrate that the learning styles of seventh grade students at SMPN 4 Padang Panjang vary with a ratio of 33.9% visual learning style, 33.2% auditory learning style and 32.9% kinesthetic learning style. These learning style variations are spread in a relatively equal ratio (Ermiyanto et al., 2023). The difference with the author's article is in the research method used and the object studied. This research both examines diagnostic assessments.

While in the research article by Arbain Nurdin with the title Learning Innovation in Islamic Religious Education in the Era of Information And Communication Technology explains that in the current era of technology has demanded innovation in learning, technological advances must be utilised as well as possible by educators, especially Islamic educators. Utilisation or innovation in Islamic religious education learning must be done immediately, especially in learning methods. Internet as a learning media can be an alternative method of learning Islamic religious education. This research is library research (Nurdin, 2016). The difference with the author's article is in the research method and the object of research. While the similarity lies in the study of Islamic education learning innovation.

From the explanation above, the author is interested in conducting research on PAI Learning Innovation Based on the Application of Non-Cognitive Diagnostic Assessment. With the aim of knowing PAI Learning Innovations made by grade 1 PAI teachers at SD IT Gondang based on the application of non-cognitive

diagnostic assessments. This is in order to strive for the use of diagnostic assessments to support the independent curriculum.

B. Methods

The research used in this article is field research with a case study research type. In-depth studies use data collection techniques directly from people in their natural environment (Untung, 2022). The nature of the research used is descriptive analytic, namely by describing or describing the reality and analysing the innovation of PAI learning through the application of non-cognitive diagnostic assessments.

The approach used in this research is to use a qualitative approach. A qualitative approach is an approach that emphasises its analysis on deductive and inductive inference processes and analysis (Untung, 2022). In this study, the data sources that will be taken in its implementation are divided into two, namely primary data sources (main) and secondary data sources (support). The main data source is the PAI teacher at SD IT Gondang. While secondary data sources are books or journals that discuss PAI learning innovations and diagnostic assessments.

To obtain data and process the materials needed in this study, the authors used several techniques including; interviews, observations, and documentation. As for analysing the data, it starts from reducing the data, then presenting the data and finally drawing conclusions.

C. Result and Discussion

Application of non-cognitive diagnostic assessment

Non-cognitive diagnostic assessment can be carried out at the beginning of learning or before the delivery of material to explore learners' psychological and socio-emotional well-being, learners' activities while learning at home, learners' family and social conditions, learning styles, characters, learners' interests, and other aspects according to learners' needs (Kemendikbudristek, 2021).

Non-cognitive aspects is a term associated with the emotional and motivational aspects of personality. Anxiety levels, one's self-esteem, and ability to control

oneself with the environment are all part of non-cognitive aspects. All of these factors can influence and determine how far learners will be motivated to perform in assessments (Lawrence, 2007).

Non-cognitive diagnostic assessment can be done through descriptive questions or other forms by making various questions on non-cognitive aspects such as psychological well-being, social background, motivation, etc. Then learners can answer questions on these aspects. Learners can then answer these questions by writing, drawing or narrating. The following table shows the stages of implementing non-cognitive diagnostic assessment through preparation, implementation, diagnosis, and follow-up activities.

No	Kegiatan	Tahapan
1	Persiapan	Membuat jadwal pelaksanaan asesmen. Menyiapkan alat bantu berupa gambar-gambar yang mewakili emosi peserta didik. Membuat daftar pertanyaan kunci mengenai kegiatan peserta didik.
2	Pelaksanaan	Meminta peserta didik untuk mengekspresikan perasaannya selama belajar di rumah dan menjelaskan berbagai kegiatannya. Ekspresi tersebut dapat dilakukan melalui: a. Bercerita; b. Menulis; dan c. Menggambar. Strategi asesmen diagnostik non-kognitif dapat menggunakan strategi tanya jawab dengan memperhatikan: a. Pertanyaan jelas dan mudah dipahami; b. Berikan stimulus yang dapat membantu peserta didik menemukan jawaban; c. Memberikan kesempatan untuk berpikir sebelum menjawab.
3	Diagnosis	Lakukan pengolahan hasil asesmen melalui identifikasi peserta didik dengan ekspresi emosi negatif. Identifikasi peserta didik berdasarkan pada gaya belajar, karakter, minat, dll.
4	Tindak Lanjut	Mengajak diskusi empat mata kepada peserta didik dengan emosi negatif, bila diperlukan dengan orang tua untuk memberikan saran, bantuan, dan masukan. Memberikan masukan terkait gaya belajar, karakter, minat belajar peserta didik melalui komunikasi yang intens kepada yang bersangkutan, bila diperlukan berkomunikasi dengan orang tua. Ulangi asesmen diagnostik non-kognitif pada awal pembelajaran dengan berbagai pertanyaan kesejahteraan psikologis, sosial emosi, gaya belajar, karakter, minat, pergaulan, dll.

Table 1. Stages of Diagnostic Assessment

Source: Modified from Kemendikbudristek, 2021

In the preparation stage, the Grade 1 PAI teacher at SD IT Gondang scheduled the implementation of the non-cognitive diagnostic assessment at the beginning of the lesson. The teacher then prepares media in the form of pictures that represent students' emotions (Lia Sa'adah, Interview, 28 September 2023). The picture below is the media used in non-cognitive diagnostic assessment. Learners are asked to tell about themselves, their families and favourite activities. This aims to

find out about learners' backgrounds, interests and learning styles. These various learning styles certainly need to be mapped so that teachers can find out the learning style of each student (Ermiyanto et al., 2023)..



Figure 1. Non-cognitive diagnostic assessment

Source: Twinkl

At the implementation stage, PAI teachers ask students to tell about learning activities at home. The teacher then gives feedback by giving some questions to students (Lia Sa'adah, Interview, 28 September 2023). Feedback is given with positive and constructive principles. So that students do not feel pressured when given questions by the teacher.

Furthermore, at the diagnostic stage, the teacher conducts diagnostics by processing and identifying the results of the assessment. From the diagnostic results, two things were found, namely the interests of the learners and their learning styles. First, the interest of grade 1 learners at SD IT Gondang tends to be in games. Secondly, that of the 28 grade 1 learners at SD IT Gondang, 8 learners have auditory, 9 visual and 11 kinesthetic learning styles. (Lia Sa'adah, Interview, 28 September 2023). Auditory learning style is more dominant in the auditory function. Visual learning style is a learning style that is more likely to prioritise the sense of sight. Furthermore, kinesthetic learning style is a learning style that prioritises movement or practice (Ermiyanto et al., 2023). From the diagnostic results above, it can be seen that grade 1 students at SD IT Gondang like to play

and have different learning styles. Some tend to be visual, some auditory, and some kinesthetic. Based on the research conducted, it can be seen that students' learning styles vary in a relatively balanced and evenly distributed amount.

Finally, at the follow-up stage, PAI teachers provide information to homeroom teachers regarding the diagnostic assessment that has been carried out. This is to be informed to the parents or guardians of the students so that there is confirmation and feedback for a better teaching and learning process for their children. Teachers also make PAI lesson plans based on the results of non-cognitive diagnostic assessments (Lia Sa'adah, Interview, 28 September 2023).

ICT-based PAI Learning Innovation Based on the Implementation of Non-Cognitive Diagnostic Assessment

The development of the times makes the era of information, communication and technology develop rapidly. Learning in this era requires teachers to be able to teach and manage classroom activities effectively. In addition, teachers must be able to build effective relationships with learners and the community in their school. Teachers in this era must be able to use technology to support learning and reflect on learning on an ongoing basis (Darling, 2006).

In grade 1 PAI subjects at SD IT Gondang, PAI teachers are required to make learning innovations. This aims to create learning that favours students because it is tailored to their needs (Lia Sa'adah, Interview, 2023). PAI learning innovation can be done by utilising information technology in its learning. Learners who have been spoilt with technology from childhood will feel happy if asked to learn through technology.

Innovation in PAI learning has progressed. This is proven by the number of Islamic software created by experts that can be utilised in supporting learning media. Such as power point, flash, digital al-Qur'an, digital Hadith, e-book, games and so on. Thus, the use of ICT (Information Communication Technology) can have a positive impact on Islamic Education learning. It can facilitate learning, as well as can present learning that is not boring by relying on only one method. PAI

teachers are also not seen as outdated, but can pioneer moral and dignified ICT (Nurdin, 2016).

ICT-based PAI learning innovations are based on the application of diagnostic assessment. The grade 1 PAI teacher at SD IT Gondang on the material I Know Hijaiyah Letters teaches the material by playing videos on YouTube and using the help of a projector. Students are invited to sing together and follow the movements on the screen. The teacher also displays a power point that contains a game. Learners are given the opportunity to play the puzzle of hijaiyah letters (Lia Sa'adah, Interview, 28 September 2023). The learning innovation is carried out after the teacher knows the learning style that evenly includes audio, visual, and kinesthetic as well as the students' interest in games. So learning is focused on that.

D. Conclusions

From the description above, it can be concluded that PAI learning innovations based on the application of non-cognitive diagnostic assessments are: First, in its application, the assessment carried out by grade 1 PAI teachers at SD IT Gondang is in accordance with the stages that must be carried out, namely the preparation, implementation, diagnostic, and follow-up stages. Non-cognitive diagnostic assessments are made to determine the learning styles and interests of students. The known results of the diagnostic assessment are that students tend to be interested in games and of the 28 students, 8 have auditory, 9 visual, and 11 kinesthetic learning styles. Second, the ICT (Information Communication Technology)-based PAI learning innovation was made based on non-cognitive diagnostic assessment. Where learning utilises the internet and technology. ICT-based PAI learning can be a solution for PAI teachers who have been experiencing difficulties and stagnation in the learning process, especially the aspect of learning methods.

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