

Conceptions of formative assessment among Malaysian secondary school teachers

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Abstract

Assessment plays a crucial role in teaching and learning process. Thus, teachers' understanding towards assessment seems to be an important part to make sure that this process is in the right path. Past studies indicate that teachers are giving more priority towards summative assessment compared to formative assessment. This qualitative study aims to explore Malaysian secondary school teachers' conceptions on formative assessment. Ten secondary school teachers were identified randomly to take part in this study. Data were gathered via semi structured interviews and document analysis. Thematic analysis was applied as data were categorized into the particular related themes. Data analysis revealed different understanding of formative assessment namely, testing and measuring, monthly test and enrichment activity. Additionally it was found that, teachers' application of formative assessment matches with their professed understanding of formative assessment. Findings suggest that, teachers need continuous support from policy maker to make sure that they are on the right path in process of assessing students throughout teaching and learning process. Ongoing and onsite may best help them to have a clear understanding of formative assessment and how it can be integrated into teaching and learning.

Keywords: formative assessment, teaching and learning, ongoing assessment

1. Introduction

21st century teaching and learning skills are totally different compared to the orthodox teaching and learning method (Darling-Hammond, 2010) [8]. Teachers are not only playing a role to teach students but it is beyond than that. In 21st century teaching, teachers need to play a role as well as an educator and a guider so the students will not left behind in learning process. To cater this kind of learning environment, teachers need to have a depth understanding on 21st century teaching skills. Students in this century are more advanced compared to the previous generation as media and electronic gadgets had influenced their lifestyle (Koh, Tan & Ng, 2012) [11]. To make sure, students did not simply get bored with learning process, teachers need to improve on the pedagogical knowledge to create students interests in classroom learning. Various aspects has been emphasized in 21st century teaching skills, such as subject content knowledge, pedagogical knowledge, uses of ICT skills, knowledge on guidance and counseling, and finally classroom ongoing assessment

One aspect that becomes a main highlight to the researchers is classroom ongoing assessment. This is particularly because; ongoing assessment has a close relationship with teaching and learning process. Ongoing assessment will give more feedback for teachers to gather information about students learning process (McMillan & Abrams 2010) [13]. The gathered information not only will benefits the students, but also will help the teachers to do further improvement in their teaching skills (Marshall & Jane Drummond, 2006) [12]. Mahamod & Lim (2011) stated that, this ongoing assessment is more on formative type of assessment, which need to be done during teaching and learning process. They even have suggested asking questions orally as one of the method that can be used as ongoing assessment tools.

However, studies have indicates that, teachers are giving more priority to summative assessment compared to formative

assessment (Black & William, 2005 [1], Brown, Kennedy, Fok, Chan, & Yu, 2009 [3] & Pakarinen, Lerkkanen, Poikkeus, Kiuru, Siekkinen, Rasku-Puttonen & Nurmi, 2010) [14]. In this case, it shows that classroom assessment does not happen frequently. Teachers are more focusing on teaching rather than assessing students' understandings toward the lesson. Due to this issue, Umer, Majeed & Omer (2015) [18] suggested that there is a need to study why teachers still prefer summative assessment compared to formative assessment and what aspect that lead to their preferences. In order to get a clearer picture on teachers' preferences, researchers feel that there is a need to understand teachers understanding towards formative assessment before we zoom into their preferences. Teachers' classroom application will always match their professed understanding (Fullan, 2014) [10]. This literature gap, has given an opportunity for the researchers to explore in depth on Malaysian secondary school teachers' understanding towards formative assessment.

2. Formative Assessment

Assessment is the term used to describe those actions for collecting information about what the students have learnt in terms of cognitive, psycho-motor and affective domains (Black & William, 2009). It should be an integral part of the education process. (Popham, 2011 [15] & Shepard, 2000) [16]. In school practice, assessments are mostly summative in the form of standardized tests and examinations which measure student learning outcomes for the purpose of holding schools accountable for their student performance (Shepard, 2005) [17]. Nevertheless, assessments can be formative when teachers provide information to students to enable them to improve their learning; and, on the basis of this information, teachers are able to adjust their teaching strategies to meet the identified learning needs of their students. Cizek & Bunch (2007) propose two models of formative assessment in schools. They are planned

formative assessment and interactive formative assessment. These two models are cyclical in nature and the components involved are mutually related. Moreover, the purpose of formative assessment determines how the assessment information is collected and used. In the process of planned formative assessment, the teachers plan to use various assessment strategies to elicit information about student learning. For example, the teachers usually ask their students to write something on a piece of paper or to make a physical model. The teachers interpret the collected information with a pre-determined set of criteria and make judgment on the achievement levels of the students. Then the teacher action is to interpret information to improve student learning by providing students with different tasks or materials to work with. Interactive formative assessment occurs during student-teacher interactions. Unlike planned formative assessment with pre-determined assessment activities, interactive assessment arises out of a learning activity. The teachers are unable to plan the details of this kind of formative assessment because they cannot predict what exactly the students would be doing. In the actual process of interactive formative assessment, the teachers firstly get information which is verbal (e.g. students' answers) or non-verbal (e.g. students' body language). This sort of information is short-lived and in progress. The teachers recognize the significant levels of this information and determine its implications for their student learning. Then the teachers make response to the information so as to improve their students' learning.

According to Christoforidou, Kyriakides, Antoniou & Cormier (2010), schools have benefits in using formative assessment. At classroom level, the quality of teaching has been improved. Teachers have developed their ability to scaffold learning goals for students and to adapt instruction to meet individual learning needs. They also pay closer attention to teaching approaches that work well and put them into practice more often. Their relationships with students and parents are stronger. Parents know specifically on what their children are learning and students have greater involvement in the learning process with their teachers. Moreover, students are taking more responsibility for their learning, and produce better work products. At school-wide level, a number of case study schools have moved from failing to exemplary status. Such dramatic changes in school performance required time, dedication, creativity, and the willingness of teachers to take risks. Evidence of benefits includes: students have improved "learning to learn" skills, students' achievements have high value-added, increased student retention and attendance, aims in academic achievement and greater attention to the weakest students.

3. Objective of the Study

Using qualitative approach, this study explores a group of teachers' conceptions of formative assessment and how they integrated it into teaching and learning.

4. Methodology

Participants

Using random sampling method, ten secondary school teachers teaching the core subjects (Malay Language, English Language, Mathematics, Science, History and Moral Education) were selected to participate in this study.

Participants that have been selected randomly can give variety to the data (Creswell, 2013) [6]. The number of participants was not determined prior to data collection. Instead, it depended on the resources and time available as well as the iterative nature of qualitative data collection (Delamont, 2002) [9]. For confidentiality reasons, in this paper nick names were used. They were identified as Aryan, Johan, Anita, Muthu, Cheong, Benedict, Reza, Kuna, Raksha and Sindhu.

Table 1: Participants background

Name	Teaching experiences (Years)	Subjects
Aryan	20	Malay Language
Johan	18	Malay Language
Raksha	18	History
Muthu	17	History
Reza	17	History
Anita	15	Mathematics
Cheong	14	Mathematics
Benedict	14	English Language
Kuna	12	Moral Education
Sindhu	10	English Language

Based on table 1, participants for this study have a teaching experience in between 10 to 20 years. They are mainly teaching core subjects from form one (13 years old) to form 5 (17 Years old).

Data collection and analysis procedures

For explorative purpose, it was suggested by Braun & Clark (2013) [2] to conduct interviews. Therefore, researchers have conducted semi-structured interviews based on an interview protocol. The interview questions were reviewed to ensure that the participants understood them and able to respond. The teachers were interviewed three times throughout the study to ensure consistencies in their responses. Following each round of the interviews, data were analyzed for recurrent themes based on a priori categories and emergent categories to reflect the teachers' understanding of formative assessment (Braun & Clark, 2013 [2] & Creswell, Plano Clark, Gutman & Hanson, 2008). For validate the data gathered through interviews, researchers also did some document analysis. Students' workbooks and portfolio had been analyzed. This process helped in order to strengthen the data.

In order to creating the themes, researchers have reviewed some of the related literature. Then, all the audio recorded interviews were transcribed. Both of this ways helped the researchers to develop the themes. After develop the themes, data were coded accordingly to the themes. Data revealed from interviews were cross checked with the data revealed from document analysis. In the final stage all the data from both interviews and observation coded accordingly to the themes that were developed at the early stage of data analysis process. Researchers also reread all the data to ensure that there is no data were left out.

5. Results and Discussions

Data analysis of the teachers' understanding of formative assessment revealed the following themes: Formative assessment as a testing and measuring method, formative assessment as a monthly grading and formative assessment as an enrichment activity.

Testing and Measuring

Out of the ten teachers, Aryan, Johan, Benedict and Sindhu were categorized into this theme. They are claiming that formative assessment as a kind of testing and measuring students' achievement.

I think formative assessment is more to test students' achievement after a period of teaching process (Aryan).

Formative assessment is on how we are measuring students' understandings (Johan).

Based on the excerpt, Aryan and Johan claimed that, formative assessment is more on testing students' achievement which will be done after a period of teaching. However, they did not mentioned clearly on how long is the period of teaching.

Formative assessment is more on how a teacher is testing the students. It can be done by giving a test which includes a few chapters of the lesson (Benedict).

Formative assessment is more on how a teacher can test the students after teaching few topics (Sindhu).

Benedict and Sindhu understood formative assessment is more on how a teacher is testing the students understanding after been thought a few chapters. Similarity among these four teachers are formative assessment has been understood as a test that can be done after teaching few chapters and the purpose is for measuring students.

The Second theme that revealed from this study is formative assessment as monthly test. Raksha, Muthu, Reza and Kuna have been categorized into this theme.

Formative assessment is a monthly test that will be done every month (Raksha).

I think formative assessment is more like giving a monthly test for students (Muthu).

Raksha and muthu clearly stated formative assessment as a monthly test that will be given by teachers every month.

Formative assessment is a test that will be given end of every semester (Reza).

Formative assessment is more on a test that will be given before every semester break (Kuna).

Even though all of these teachers stated formative assessment as a monthly test, but there is a different in between them. Raksha and Muthu understood formative assessment as a test that needs to be done monthly whereas; Reza and Kuna understood it as a test that will be given before the end of each semester.

The third theme that revealed from this study is, formative assessment as an enrichment activity. Anita and Cheong are the teachers that understood in this way. Both of them claim that, each of the classroom enrichment activity can be categorized as formative assessment.

Formative assessment is a classroom enrichment activity that can help the students to learn and giving information about the students to the teacher (Anita)

Formative assessment means all kind of activities that teacher will conduct in classroom to help students to understand better (Cheong).

Both of them understood formative assessment as a classroom activity that is giving a clearer picture on students learning process. Based on the findings reported in this study, it is

clearly shows that teachers have different understandings towards formative assessment. Some of them still perceived formative assessment as students' measuring tools compared to students learning activity.

Based on literature, formative assessment is more on understanding students' learning process rather than giving grade. But in this study, there are eight teachers that are still saying about measuring students for grading purpose compared to the two that are saying about classroom learning activity. This shows that teachers still do not have a depth understanding on formative assessment.

Students' work book and portfolio analysis also revealed the same findings as found via semi-structured interview. Teachers those who understood formative assessment as a measurement tools seems to give a test once they completed the particular chapter, but those who understood as an ongoing classroom activity seems to give more enrichment activity. Besides that, they also give more comments and feedback for the improvement purpose.

6. Conclusion

In a nutshell, we can conclude that, teachers are still lack of information regarding formative assessment. Due to this, they intend to prepare test which can measure students' achievement rather than preparing assessment for learning process. To overcome this situation, it is advisable to the policy maker to observe and guide the teachers to make sure that they are in the right path in achieving the objective of national education philosophy.

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