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Primary Students’ Conceptions of Assessment

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Abstract -
A small-scale qualitative study involving Primary 5 students from a Singapore school, investigating their conceptions of assessment in terms of purpose and usefulness of assessment, particularly with conventional and alternative assessment. The findings are similar with conceptions found in existing literature and reflect students’ awareness of the purposes, with “testing of knowledge” being the main response. Student participants’ reactions were also gathered and found to be largely negative due to the competitive and pressurising need to do well in assessment as a form of academic achievement. This study provides an exploratory insight into students’ conceptions and reactions as well as pedagogical implications for educators.

Keywords – conceptions, alternative assessment, conventional assessment, primary students, qualitative

INTRODUCTION

Conception refers to an organized system of beliefs that a person holds, encompassing meanings, concepts, mental images and preferences (Thompson, 1992, p. 141). According to Green’s (1971) model of conceptions, beliefs are grouped in clusters and may be held separately (as cited in Cooney, 2001). This somewhat explains the at-times incoherent and puzzling relationship between belief (conception) and behaviour (reaction) where while one may express a particular belief, they may behave in an unexpected manner depending on the situation and possibly driven by another unspoken belief in the background. This definition would aid in better understanding the student participants’ interview responses regarding assessment.

Assessment is a general term to refer to a process of obtaining information for decision-making with regards to students and schools (Brookhart & Nitko, 2008, p. 4). In this study, the focus is on two main types of assessment entrenched in Singapore’s education system – Conventional and Alternative Assessment.

Conventional assessment is also referred to as ‘traditional’ or ‘pen-paper’ assessment. The latter term ‘pen-paper’ was used during the data collection (interviews) as it was found that student participants were unfamiliar and hence confused with the term ‘conventional assessment’.

On the other hand, alternative assessment aims to provide a more holistic education experience and commonly includes project/group work, oral presentations, portfolios and journal writing.

This paper shares the qualitative findings of a Singapore study that investigated primary school students’ conceptions of assessment and how they react to it. It will first review existing literature in the field, thereafter sharing the study’s methodology, results, discussion, implications and concluding with suggestions for future research.

LITERATURE REVIEW

Assessment has been identified as the most influential factor in students’ learning (Gibbs & Simpson, 2004) and serves purposes of accountability - meaning how well students learn - and improvement (Danielson, 2008). This resonates with Singapore’s education system which is identified as exam-oriented and involves high-stakes assessment (Ratnam-Lim & Tan, 2015). It is critical to consider students’ thinking and conceptions about educational processes as numerous studies have shown that their understanding can impact their own educational experiences (Brown & Hirschfeld, 2007).

According to existing research, how students conceive and respond to assessment meaningfully correlate with their learning process and outcomes/achievements (Brown & Hirschfeld, 2007). This means that if students possess positively-loaded conceptions, it will have positive implications on achievement, vice versa. On the other hand, unproductive conceptions are said to reduce effectiveness of educational interventions, instructions and tasks (Fransson, 1977).

Numerous educational research in the field of assessment have explored teachers’ conceptions as well as students’ conceptions of assessment at several levels of education from secondary to university levels (Brown & Hirschfeld, 2007; Brown & Wang, 2013).

To date, few research has looked into the overarching purposes of assessment. While adults in the field (i.e. teachers and policy makers) may be aware of the
This categorization is made based on their latest Ability (HA), Middle Ability (MA) and Low Ability (LA). This categorization is made based on their latest

Hence, this exploratory study looks into primary students’ conceptions in terms of purpose and usefulness of assessment as well as their reactions in terms of preparation, emotions and attribution aspects.

The researcher hypothesised that student participants would possess similar conceptions to Brown’s (2011) study, namely “assessment for improvement of teaching and learning, school accountability, student accountability, and assessment is irrelevant”.

**AIMS**

This study aims to explore and answer the following research questions under 3 identified categories:

**Students’ Conceptions**

1) How do student participants perceive the purpose and usefulness of the two modes of assessment?

**Students’ Reactions**

2) How differently do student participants prepare for a conventional assessment as compared to an alternative assessment?

3) How do student participants respond to the outcome/results of an assessment?

4) What do student participants attribute to their own performance in an assessment?

**Relation between the two aspects**

5) How do students’ conceptions affect their reactions towards assessment?

**METHODOLOGY**

A qualitative approach was adopted for this research study. Semi-structured interviews were conducted face-to-face with Primary 5 students from a co-educational government primary school in Singapore. The interviews were carried out in an empty classroom within the school compound, after curriculum hours. The interview process was audio-recorded and field notes were written down by the researcher. Thereafter, the data collected was transcribed and coded into similar key words and themes for further analysis.

**Participants**

The sample size of twelve Primary 5 students were chosen according to their academic ability – High Ability (HA), Middle Ability (MA) and Low Ability (LA). This categorization is made based on their latest examination results, class ranking and their form teacher’s feedback. Participants also randomly vary in terms of race and gender. The selection criteria also required participants to be Singaporeans who have gone through the local government education since Primary 1 so that they are familiar with the assessment system. Upon successful selection, participants were issued an information sheet and parental consent form to obtain approval from their own parents/guardian.

**Instrument**

The interview was guided by a set of 6 main questions with several sub-questions. The questions were categorised under ‘Students’ Conceptions’ and ‘Students’ Reactions’ to answer the research questions of this study. The flexible nature of the interview process allowed for further clarification and extension of participants’ responses. It also allows for probing as the young participants might not be able to verbalise their opinions on the complex matter.

**Procedure**

Student participants were first briefed on the topic and had key terminologies (i.e. conventional/pen-paper assessment and alternative assessment) clarified to avoid misunderstandings. Thereafter, they were given a few minutes to gather their initial thoughts on ‘Assessment’ and allowed to jot them down on paper before being interviewed by the researcher.

Prior to the interviews, participants were asked to complete assent forms to indicate their willing involvement. They were also informed that their responses will remain strictly anonymous, not having any impact or involvement with their school grades. This is to increase willingness of participants to share their true responses without being swayed by external factors such as the need to be politically-correct.

During the interview process, the researcher makes a conscious effort to ask mostly open-ended questions and practice member-checking to clarify the responses made by the participants to ensure alignment in the researcher’s interpretation.

**Analysis**

The audio-recorded interviews were transcribed almost word-for-word, excluding fillers such as “um” and “er”, while maintaining the essence of the participants’ content. Pauses were noted at a basic level with ‘…’, indicating a short pause less than 3 seconds while ‘(...)’ describes a longer pause. Transcribing is done to allow for simple qualitative content analysis where the data is coded into categories based on key words relating to the research questions and broad themes.

**RESEARCH & DISCUSSION**

**Students’ Conceptions of Assessment**

It is interesting to note that at the start of the interview, most of the participants related the topic of
‘Assessment’ to conventional assessment (e.g. “(surprise) tests”, “exams” and “quizzes”). There was only a rare reference to other forms of assessment such as “physical”, “art” and alternative assessment. This could be attributed to Singapore’s exam-oriented education system (Ratnam-Lim & Tan, 2015) where high-stakes examination such as national examinations take on the conventional type of testing. Even though there has been a shift towards a more holistic approach by incorporating alternative testing, it is undoubtedly conventional assessment that dominates.

Student participants also showed an apparent obsession with grades, which could have been driven by parents’ expectations. In response to the question “Is there a need to do well?”, almost all participants responded with a resolute “yes”. A HA student said “must die die do well!” while another MA said “My parents will be so disappointed if I don’t. So good marks is very very important!” Only one participant from the LA group provided a different answer, placing importance on effort and the process instead of the end-product, in other words grades.

Participant #12: “I think that doing well is up to me... whether I want to pass or fail. If I don't do well, it’s ok, then I will start to remind myself that I tried my best and it’s ok and can do better next time.”

Feelings that were evoked by the thought of assessment were generally negative in nature, with “stress” being the top-cited response by participants followed by “anxious” and “nervous”. There was a pattern that more positive feelings came from the HA and MA participants, where Participant #1 mentioned feeling “excited” and viewing examination as a “challenge (to) myself”.

The conceptions of assessment in terms of purpose and usefulness extracted from this study’s findings are categorised into the following:

(a) Assessment is for testing students’ subject knowledge
(b) Assessment gives feedback to students
(c) Assessment improves students’ learning
(d) Alternative assessment is fun
(e) Assessment is useful and beneficial

The first three conceptions come together in a sense that there was a testing-feedback-learning cycle observed. Participants identified the main purpose of assessment as testing their knowledge, skills and ability in what has been taught. Upon receiving feedback and results, students “learn from mistakes”, “find out what are their weak areas” and ‘see where I rank’. This somewhat links to the conception in Brown’s (2011) study - “assessment for improvement of …learning”. Only in one instance was the purpose of assessment viewed through the teachers’ lens as well.

Participant #3: “MOE can see... if the teachers are teaching well enough. Then, if teachers think that they are not then maybe they can improve their teaching ways.”

All the participants also responded that assessment is generally useful and beneficial. The reasons given were linked to providing feedback for improvement, learning subject/content knowledge as well as more practical reasons such as to “get a degree and good job” through the certification received from a national examination. However, a few did express negativity towards conventional assessment on top of recognising its usefulness.

Participant #1: “I think not so much because once we work we won't do exams and it's more hands-on and real.”

Participant #10: “(if) you're just working for a normal job, then you don't need to use all that subject... and they don't ask you to plus minus, can just use calculator.”

Next, alternative assessment, which was seen as the “more fun way of testing”, is beneficial as it allows for development of social, communication and leadership skills for instance “interact with others”, “teamwork”, “learn to listen to other people”, “respect for each other”, self-expression (e.g. “how to tell my friends my idea”) and people management (e.g. “to discipline others”).

Unlike Brown (2011), this study’s findings did not show that students thought assessment should make them or their school accountable. Although participants were aware of the usefulness of assessment and how it can improve their learning, there was no evidence of them taking action by being responsible and accountable for their learning. Instead, they ascribe poor grades to the difficulty of an examination paper and lack of teaching.

Participant #3: “how difficult the exam paper is? If it's too difficult then it is difficult to get good marks... Or something like my teacher hasn't taught me before or she never teach me properly”.

Nevertheless, in keeping with this study’s hypotheses, students’ conceptions of assessment did largely centre around themselves. There was also a strong focus on the necessity for good grades and guidance from teachers. This matches Brookhart and Bronowicz’s (2003) study which found that, regardless of grade or type of assessment, students’ responses revolved around their personal interests and needs. The potential value of assessment for other key-holders such as teachers, school and the community was not particularly recognised.

It was also found that student participants were unlikely to go beyond what is taught and tested in the syllabus. This matches the backwash effect that the local education system engenders a hidden curriculum which
favours “education for earning, not learning” (Cheah, 1998, p. 192 as cited in Ratnam-Lim & Tan, 2015). The implication is that whatever is not tested in the national examinations would be cast aside and learning becomes less of a meaningful activity instead more mechanical.

Participant #10: “if you learn more... you actually quite confuse[ed]. And you might forget the one you learn.”

Participant #5: “I only go beyond if I really feel interested in that subject or in that topic, which is rare.”

Students’ Reactions towards Assessment

In terms of preparation, findings reflect a difference in the way participants prepared for an assessment, depending on the type. It seems that more hard work and time was invested into preparing for a conventional assessment as compared to an alternative assessment. Resources such as “textbooks”, “assessment books”, “practice papers” and “tuition” were utilised to prepare for a conventional assessment compared to the limited usage of resources for alternative assessment, mostly citing “internet”, “teacher’s notes” and people around them including friends and family as references. This could be due to more emphasis placed on conventional assessment which is also reflected in teachers’ teaching styles and methods such as “drilling” and “spoon-feeding” (Ratnam-Lim & Tan, 2015).

Emotional responses to assessment results depend on whether the grades received were ‘good’ or ‘bad’, though this can be a subjective measurement as one person’s idea of a good grade does not equate to another’s. Though generally, it appears that the achievement emotions steer towards the negative end. This resonates with international research findings that “as the stakes of schooling increase... students’ dominant emotional response to assessment appear to become increasingly negative” (Brown & Wang, 2013, p. 1039). Although it is said that secondary and university students possess more negative views of assessment compared to younger students (Brown & Wang, 2013), the nature of Singapore’s competitive and results-driven community could explain the added pressure on younger students to perform well and thus develop more negative conceptions towards assessment.

An interesting comment brought up by a HA participant highlights the idea that learning does not stop upon attaining the maximum level as one can always strive for more.

Participant #1: “there's always room for improvement even if you get 100, you might not remember what exactly the concept you used.”

In answering the fourth research question, almost all the participants identified “hard work” and “effort” in terms of amount of time invested in doing revision as the main attributing factor of one’s results. Some also mentioned support system such as “parents and my tuition teacher” as well as friends (e.g. “You can have friends to play with but then you also must have friends to study with”). This ties in with the Asian values and mindset, for example through Chinese proverbs that emphasize how ‘hard work pays off’.

Relation between Students’ Conceptions and Reactions

Although the findings and sample size are limited, they point to a pattern between the two aspects, that they seem to share a direct relationship. If participants had a generally positive conception of assessment, their reactions tend to be positive in nature as well. Hence, it is believed that if students are able to change their conceptions to “adaptive beliefs on a growth pathway” (Brown, 2011, p. 744), sizeable learning achievements can be attained. In this study, it was interesting that although participants had negative emotions connected to assessment such as “stress”, they could still appreciate the value and importance in the purpose of assessment and hence this reflects in their reactions such as their studying behaviour during preparations.

Implications

Overall, it is believed that these findings have embedded pedagogical implications. While assessment is supposedly a planned and meaningful activity infused in teaching and learning, students may not hold this perception. Hence, it would be beneficial if teachers discuss with students regarding broader functions of assessments allowing for misconceptions to be clarified (Carnell, 2000). Next, students do not seem to recognise the variety in assessment types, linking assessment only too the conventional type. The implication is that they would naturally not acknowledge alternative assessment as similar in status and so tend to place lesser importance. Additionally, parents need to be roped in so that their ideas on assessment and learning would be aligned with teachers’. Lastly, with information on students’ conceptions and reactions, teachers can work with students to come up with learning strategies and help manage their emotional well-being. If identification of students with unproductive conceptions of assessment can be made, teachers can act to counter these conceptions that are labelled as an obstruction to academic achievement (Elen & Lowyck, 1999; Fransson, 1977).

CONCLUSION

This qualitative study aimed to explore students’ conceptions of assessment. The findings presented a variety of candid responses, with participants generally sharing similar ideas, pointing out that the main purpose of assessment is to test and inadvertently improve one’s knowledge. Additionally, assessment is largely conceived as useful and beneficial despite the negative achievement emotions linked to it.
A point to consider would be that participants may be slightly pressured to provide politically-correct answers during the interview seeing it took place in the classroom which could be viewed as a formal setting.

With that said, the findings from this study largely coincides with Brown’s (2011) study in terms of students’ conceptions.

Due to the small sample size involved in this study, the findings do not show a significant relationship between students’ conceptions and their ability which was the initial categorization of participants. The results may also not be generalised to the bigger population.

This paper leaves doors open for further research which could expand upon this study to see whether the findings are able to be replicated with the use of various data collection methods, possibly involving a mixed-method approach to include not just qualitative but the quantitative angle to the phenomenon as well. The Students Conception of Assessment (SCoA) inventory (Brown, 2011) could be adapted to elicit self-reported responses.

Longitudinal research could be done to explore if students’ conceptions changes over time from lower to upper primary or from the start to the end of a school year. Also, variables such as nature of school (private versus government), age, gender and academic ability could be explored to examine if there is a relationship with students’ conceptions of assessment.

Despite the limitations, the findings from this study are particularly valuable for education practitioners (policy-makers, teachers and students) as they act as a stepping stone and could provide an inkling or reference in understanding students’ conceptions and reactions towards assessment.

ACKNOWLEDGEMENT

The student researcher would like to thank ER supervisor, Dr. Luo Wenshu for her invaluable guidance and constructive feedback throughout the process of this study.

Additionally, acknowledgement and thanks goes to the primary school involved in this study, particularly the principal who gave immediate approval, the teachers who assisted in settling the logistic matters as well as the twelve student participants who contributed during the interview.

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