Berry, R. (2010). Teachers' orientations towards selecting assessment strategies. *New Horizons in Education*, 58(1), 96-107.

Teachers' orientations towards selecting assessment strategies

Dr Rita BERRY Hong Kong Institute of Education

Abstract:

The literature suggests two main types of orientations influencing teachers' choice of assessment strategies - "Knowledge acquisition and retention (K orientation)" and "Understanding and Conceptual change (U orientation)" with the former more directly related to surface learning types of assessment strategies and the latter more to do with strategies which encourage deep learning. The study aimed to investigate what kinds of strategies teachers used to assess their students and how teachers' self-reported assessment strategies reflected the orientations suggested in the current literature. In addition, it identified the governing forces that impacted on the orientations of the teachers in their assessment strategy selection. Ninety-four Hong Kong teachers from nine primary schools and six secondary schools took part in semi-structured interviews which focused on the strategies they used for assessing their students. The teachers reported using many types of strategies including tests, exams, projects, etc. The results of the study showed that there were forces that drew teachers towards "Knowledge acquisition and retention" orientation while selecting assessment strategies for use. More effort has to be made to encourage teachers to attain a better balance between assessment aimed at measuring knowledge and assessment aimed at learning and understanding.

Key words:

Assessment strategies, orientations, teaching and learning

Teachers' orientations in selecting assessment strategies

Introduction

Assessment is part of a teacher's classroom routine and teachers use a considerable amount of classroom time for conducting assessment activities. Stiggins and Conklin (1992) have estimated that as much as one third of a teacher's instructional time is connected in some way to assessment. Assessment activities in the classroom are not restricted to formal tests and quizzes. They may refer, as Raveaud (2004) points out, to "the time spent checking ongoing work, making suggestions, giving oral feedback to pupils or marking their work in front of them" (p. 194). Knowles and Brown (2000) explain that "assessment is actually a set of strategies for discovering what students know or can do and it involves a number of activities designed to determine students' achievement" (p.127). Assessment strategies are akin to plans or procedures for helping students achieve learning goals. Welch (2006) suggests that assessment strategies can be viewed as aspects of evaluation. In other words, assessment strategies serve the purpose of evaluating student performance before, during, and after the learning processes. They can be plans for guiding learners to work towards their learning goals, comprising an on-going data collection process in which teachers monitor their students' work and render help when deemed necessary. These strategies can also form a basis for judging students' academic achievements and for reflecting on one's teaching. The assessment strategies teachers adopt are in fact a reflection of their orientations to learning and teaching and maybe also systemic constraints such as existing school practices. It is therefore important to understand the teachers' orientations towards selecting the strategies for assessing their students. This paper reports on an investigation of the strategies that Hong Kong teachers' used to assess their students. It investigated whether the self-reported assessment strategies reflected the orientations suggested in the current literature and identified the governing forces that impacted on the orientations of the teachers in their assessment strategy selection.

Different kinds of assessment strategies

A variety of assessment strategies are canvassed in the literature including paper-and-pencil tests, portfolios, projects, oral presentation, observation, learning journals, learning contracts, and interviews (Knight & Yorke, 2003; Maurer 1996). Paper-and-pencil tests are commonly associated with scoring school-taught learning in a standardised test environment, thus allowing teachers to make objective comparisons of student performance. This form of assessment may contain test items

such as multiple choice, true or false, matching, short questions, or essays, all of which aim at challenging students cognitively. Some important skills and learner outcomes, however, do not lend themselves to being measured using test items. If care is not taken in their use, these forms of tests may focus largely on the retrieval of factual information. In Hong Kong, many schools rely heavily on using paper-and-pencil tests for summative purpose and the papers are unfortunately designed in a way that make memorization of facts an obvious focus (Berry, in press).

Quality education sees learning as an active construction of knowledge on the part of the learners. It is an interactive, organic process of reorganization and restructuring by the learner (Gipps, 1998; Klenowski 2004). These views of learning see the learner as an active interpreter and constructor of knowledge based on experiences and interactions with the environment (Klenowski, 2002). According to this new paradigm, assessment is emphasized as a means to support learning. It has important implications for changing assessment practice and sheds some light on the new directions in assessment policies (OFSTED, 2003; QCA, 2003). The way students are assessed has a major influence on their learning. If an assessment procedure is appropriately deployed, assessment can enhance student learning.

Teachers can use various forms of assessment strategies in addition to paper-and-pencil tests to broaden their understanding of student learning. They can, for example, ask students to work on a learning portfolio to develop their self learning ability. In doing an oral presentation, students have to organize their thoughts and present them in a logical manner in addition to demonstrating their academic abilities. These exercises all challenge students in different aspects of their learning. They also enable individual-specific meaningful information to be communicated to students and parents (Scott 2007). Individual assessment strategies have their own strengths and weaknesses and teachers from time to time have to make decisions as to which assessment strategies they should utilise in various learning and teaching situations. To attain the purposes of enhancing student learning, making good judgements in selecting the type of assessment strategies for use is significant.

Despite there being so many types of assessment strategies for teachers to use and the different contributions these assessment strategies could make, many teachers in Hong Kong still prefer paper-and-pencil tests as the key strategy for assessing students. The teacher's choice of one assessment strategy over another reveals as much about the 'value-laden interests' of the teacher as it does about the subject of their assessment. Raveaud (2004) says that "Routine assessment in the classroom

constitutes a prism through which one can examine teachers' beliefs and values" (p. 193).

Types of teacher orientations towards selecting assessment strategies

There are a number of orientations which govern teachers' selection of assessment strategies for use. Samuelowicz and Bain (2002) use a continuum to describe teacher orientations. They put "knowledge reproduction" at one end and "knowledge construction and/or transformation: at the other. Dirks (1997) prefers to categorise the orientations into three main types, namely, "Knowledge acquisition and retention", "Understanding and conceptual change", and "Knowledge acquisition and understanding". Dirks (1997) thinks that there should be a category which combines the two – "Knowledge acquisition and understanding". His argument is that teachers may use knowledge and acquisition assessment strategies to help their students garner the knowledge of the subject content and then use understanding and conceptual change strategies to facilitate the learners to use their newly acquired knowledge. The strategies of two different orientations can therefore take place in sequence or even simultaneously in one assessment setting. In this paper, the orientations will be interpreted as a continuum with one end being "Knowledge acquisition and retention" and the other "Understanding and conceptual change".

According to Dirks (1997), knowledge acquisition and retention is the common orientation towards choosing an assessment strategy. Teachers selecting assessment strategies under this orientation would want to find out if knowledge has been acquired and retained by the students. Dirks says that standardised paper-and-pencil tests are the default assessment method. The tests or examinations are set in a way that assesses students' abilities to reproduce what teachers have taught and what has been presented in the textbooks. Donnan (1996) suggests that this orientation promotes the following characteristics in learners: it adds to store of facts; builds repertoire of skills and procedures; breaks down problems into sub-units; works methodically and logically; uses memorization skills; makes links within units of knowledge; and uses systematic trial and error in problem solving. Samuelowicz and Bain (2002) point out that "teachers influenced by this orientation will see 'good' students as those who are able to recall the correct answers with which they are provided" (p.186-187). The learner outcomes associated with these types of assessments represent knowledge and skills as something to be mastered through acquisition, rather than through investigation, discovery and deep conceptual understanding.

"Understanding and conceptual change" is another common orientation for assessment strategy selection (Donnan, 1996). According to Atkins (1993), learners exposed to this orientation exhibit the following characteristics:

- A mastery of principles and concepts including the ability to apply them to an understanding of the 'real world'
- An understanding of the methods and tests for truth which a discipline uses
- An engagement with the societal contexts of the discipline, including associated theoretical and moral issues.

The assessment strategies for this orientation aim at stimulating students' abilities to create and apply a wide range of knowledge rather than simply engage in acts of memorisation. The strategies selected would provide a tool for students to see ways to improve their higher-order learning. Berry (2008) points out that:

By integrating different forms of alternative assessment strategies in their instruction, such as portfolios, observations, experiments, projects, simulations, interviews, performances, presentations, peer assessment, and self assessment, teachers stand a better chance to achieve a deeper understanding of students' learning and promote deeper learning on the part of the learners. (p.80)

Teachers influenced by this orientation will see assessment as a means to enhance student learning. The methods of assessment associated with "Understanding and conceptual change" might lend themselves more readily to a role of supporting learning by providing more detailed feedback, and by focusing on specific learner outcomes over an extended period (as in portfolios, and projects), in ways that summative paper and pencil tests ordinarily do not.

Hong Kong context

Since 2000, the Hong Kong government has officially embarked on a "Learning to Learn" education reform with a strongly emphasised "Assessment for Learning" agenda. The highlights of this agenda include reducing excessive use of tests and examinations, using assessment to understand and support learning, as well as using students' information to improve teaching (Curriculum Development Council (CDC) 2001). In sum, the reform stresses that assessment should also be used for enhancing learning in addition to its other purposes such as selection and accountability. The

CDC (2002) highlights in its document that:

All schools should review their current assessment practices and put more emphasis on assessment for learning. The latter is a process in which teachers seek to identify and diagnose student learning problems, and provide quality feedback for students on how to improve their work. Different modes of assessment are to be used whenever appropriate for a more comprehensive understanding of student learning in various aspects (Chapter 5, p.1).

The government stresses that assessment should not be treated merely as an end-of-learning activity with a single purpose of finding out whether the set learning outcomes have been met. It proposes the use of formative assessment whereby various kinds of assessment strategies can be used to help understanding and support student learning. Using paper-and-pencil tests as the sole or main strategy for assessing students is discouraged as they can only provide limited information on student learning.

Despite these strong indications, the current situation is that in most Hong Kong classrooms, paper-and-pencil tests are still the dominant assessment strategy used for summative purposes. This form of assessment strategy is commonly found in schools' internal tests and examinations, which place a high emphasis on gearing students up to meeting the requirements of external examinations. In its official document -Learning for Life, Learning through Life, Education Commission (2000, p. 4), the government notes that "... despite the huge resources put into education and the heavy workload endured by teachers, learning effectiveness of students remains not very promising, learning is still examinations-driven." In 2003, an eye-catching headline 'Rote-learning and high-stakes testing throughout school are out of place in modern Hong Kong' hit the front page of the education section of a local newspaper. The news article reported fierce criticisms made by a review undertaken by IBM Business Consulting Services and Vision in Business Consulting (IBM, 2003). The company was commissioned by the Hong Kong Government to review the Hong Kong Examinations and Assessment Authority (HKEAA). One of the main criticisms was that Hong Kong still regarded assessment as an event that occurred at the end of the education process, instead of something that deeply influenced learning and teaching. The criticism is probably well founded because, whilst bold curriculum reforms to improve learning and teaching are being pushed ahead, traditional assessment practices are still being adopted and the close relationship between

assessment and learning has not been fully acknowledged. The lessons learnt from experiences and research revealed the truism that change cannot be achieved without actively engaging the hearts and minds of teachers (Carless, 2005). It is crucial to understand why teachers strongly prefer paper-and-pencils tests over other types of assessment strategies, even though they acknowledge the merits of these other forms of strategies.

The study

This study was conducted in Hong Kong and addressed the following questions.

- 1. What kinds of strategies did teachers use to assess their students? How did the self-reported assessment strategies reflect the orientations suggested in the current literature?
- 2. What are the governing forces that impact on the orientations of the teachers in their assessment strategy selection?

Method. The study aimed at understanding teachers' assessment practices in the classroom. The focus of the investigation was on understanding the assessment strategies Hong Kong teachers used in the classroom and the orientations that governed their assessment strategy use. Semi-structured interviewing was used as the main method for investigation. The set of questions elicited information focusing on two major aspects: (a) the strategies teachers use to assess their students; (b) their rationale for selecting these strategies to assess their students.

Participants. Ninety-four school teachers from 9 schools representing high, medium and low academic abilities in Hong Kong (3 secondary and 6 primary) were invited to participate in the study. Amongst these, 31 were secondary school teachers (33.0%) and 63 (67.0%) primary. Twenty (21.3%) of them were male and 74 (78.7%) of them were female. The teachers represented a wide range of teaching experience, including 32 (34.04%) had 5 or less than 5 years of experience. When the interviews were conducted, 27 (28.72%) of them had been teaching for 6-10 years; 24 (25.53%) for 11-20 years; and 11 (11.71%) for 21 years or more. The teachers represented a wide spectrum of subjects with 36 of them teaching Chinese language, 42 English Language, and 35 Mathematics, 24 General Studies, 13 Computer Literacy, 2 Science, and 1 Liberal Studies. This is with the understanding that some teachers taught more than one subjects at their schools.

Procedures. The teachers were invited to have a one-to-one face-to-face interview at

their own schools. The interviews, conducted in Cantonese, took between 30 to 60 minutes each. With the consent of the interviewes, all interviews were audio-recorded. Prior to the interviews, the intended thrust of the interview was conveyed to the teachers. During the interviews, the teachers were prompted to respond based on the purposes for which the intentions were conducted.

All the interview content was transcribed. The translation was done by a research assistant who had a very strong grasp of English and Chinese. Another research assistant listened to a random sample of the audio recordings to double-check the accuracy of the transcriptions. To further ensure the validity and reliability of the transcriptions and translations, the principal researcher, who was also language trained, conducted another round of random checking of the transcriptions. Some minor inconsistencies, mainly in use of syntax between the two research assistants, were detected and corrected.

Data Analysis. A qualitative research software package NVivo (Version 7) was employed to analyse the data gathered. The data was analysed using the coding procedures suggested by Strauss and Corbin (1990). The insights garnered from the literature review were used as the basis for developing the assessment strategy categories for coding. This was done with an understanding that the final set of categories had to be negotiated and decided upon while the data was being analysed. When deciding on teachers' orientations in their selection of assessment strategies, decisions were made based on the way they used the strategies. Data analysis focused on three major aspects: (a) Identifying the types of strategies teachers used, (b) Relating the strategies identified to the two major types of orientations mentioned in the literature, and (c) Looking for the governing forces impacting on the orientations.

Results & discussion

Teachers' orientations towards selecting assessment strategies

The literature suggests two main types of orientations influencing teachers' choice of assessment strategies – "Knowledge acquisition and retention (K orientation)" and "Understanding and Conceptual change (U orientation)", which this study used as the basis for data analysis. As noted above, assessment strategies could be roughly grouped under these two umbrella terms. For example, some strategies such as examinations and quizzes were more inclined to the "K orientation", whereas others, such as projects and presentations, were closer to the "U orientation".

The teachers reported a total of 41 different types of assessment strategies they adopted in class. The assessment strategies that accounted for higher percentages of usage by the teachers were homework (n = 58, 61.7%), questioning (n = 57, 60.6%), tests and examinations (n = 56, 59.6%). Other strategies also frequently mentioned include project work (n = 40, 42.6%), quizzes (n = 34, 36.2%), observations (n = 30, 31.9%), classwork (n = 24, 25.5%), games (n = 24, 25.5%), worksheets (n = 22, 23.4%), class activities (n = 20, 21.3%) and group discussions (n = 17, 18.1%). Strategies the teachers had less frequently mentioned included anecdotal records (n = 6, 6.4%), revision (n = 5, 5.3%), reports (n = 4, 4.3%), debates (n = 2, 2.1%), and interviews (n = 2, 2.1%). Each teacher was at liberty to report multiple methods of assessment.

The study revealed that more than half of the teachers reported using tests and examinations (n = 56, 59.6%) as the main strategies to assess their students. More than one third of the teachers mentioned using quizzes (n = 34, 36.2%) to assess their students. Their frequent use of these strategies in fact reflected their perceptions of the demands from various sources. In the interviews, most teachers (n = 51, 54.3%)reported that standardized tests and examinations were school assessment policies. Throughout their education, students in Hong Kong have to sit for various kinds of examinations for different selection purposes. Most schools in Hong Kong require teachers to administer frequent and routine paper-and-pencil tests to prepare students for the examinations. Many of the strategies reported were directly related to meeting internal requirements of the school and of the parents, including tests and examinations, homework (e.g. complete the exercises in the workbook), quizzes, and worksheets (e.g. supplementary exercises). These kinds of assessment strategies are more inclined to "K orientation". The teachers did mentioned using some assessment strategies (e.g. questioning (n = 57, 60.6%), project work (n = 40, 42.6%)) that are more related to "U orientation". However, one can adopt a knowledge-based approach when using these strategies. One comment from a teacher was, "With regards to questions... you can tell whether students have grasped the subject knowledge or not.". Another comment was that they tended to use projects mainly as information searching and knowledge-based activities. The teachers interviewed also mentioned a number of other types of strategies that tend to be more U-oriented (e.g. discussions, debates and interviews). However, they prefer using the assessment strategies that were more related to K orientation for their day-to-day teaching work, possibly due to the underlying forces presented below.

Forces influencing teachers' orientations towards selecting assessment strategies

Teachers tended to select those assessment strategies related to the knowledge acquisition and retention orientation. Their choices of assessment strategies were very much bound by a number of gravitating forces including those that are system-compelled, curriculum-related, form-level-induced, subject-bound, and parents-obliged (see Figure 1).

System-compelled forces. The assessment policies in schools are largely influenced by the education system. Hong Kong has a long history of being an examination-driven education system. Currently, Hong Kong has two high-stake public examinations comparable to O-level and A-level in other countries (but which are to be merged in 2012) plus a number of other territory-wide assessment initiatives such as assessing students at primary 3, primary 6, and secondary 3. Because of the prevailing external examination system, many schools in Hong Kong are overburdened with tests and examinations. Although the Hong Kong government has recently urged reforms in assessment, the system still values highly the selective purpose of assessment. In order to help students meet the requirements, many schools adopt assessment policies which will help students survive the education system. Teachers are obliged to select the strategies which they believe will help students get through this system. Teachers involved in the study said, "We have public examinations, every school therefore gives students tests and examinations."; "Our school asks students to sit for tests and examinations." Teachers feel that they have to follow this assessment policy. Many of the teachers (n = 46, 48.9%) explicitly expressed that there was not a lot of room for them to use their discretion. However, the assessment strategies they select for their students tend to be quizzes, tests, and examinations. Test format and test items will follow as closely as possible to those used by the public examinations. As one teacher commented:

"This year (secondary 5), we have to rush to get everything taught. We have so little time... so little time to prepare students for the Hong Kong Certificate of Examination [equivalent to O-Level]. To prepare them for the public examination, I make them do worksheets and I get them to do past examination papers. I discuss with students how they can score higher marks. This is what we do in most lessons in the students' final year."

Curriculum-related forces. In Hong Kong, before a new term begins, the usual practice is that a curriculum/teaching schedule for each specific subject and different

year groups will be decided on and used as the basic guidelines for teaching. The schedule (frequently called as "syllabus" by the teachers) details the time-line for the year's key teaching areas and topics. Teachers tended to complain about the school's tight curriculum schedule. They thought it restricted their choice of assessment strategies, as reflected by the teachers involved in the project (n = 41, 43.6%). A teacher said, "Where the teacher is rushing to complete the curriculum, selecting what kinds of assessment strategies tends to be the last concern in their everyday teaching."

Form-level-induced forces. Some strategies offer better fit than others regarding different age groups. An appropriate choice of assessment strategies could help enhance students' learning. Amongst the teachers interviewed, twenty-three teachers (24.5%) reported that they chose different assessment strategies for students of different form levels. In the upper forms, teachers usually allowed more discussion time, as reflected by the following:

"In the upper forms, I would give them more opportunities for discussions, because they would learn a lot from discussions."

For dealing with the lower forms, two approaches undertaken by the participant teachers have been identified. At one end of the dichotomy, to keep students motivated, some teachers preferred to use assessment strategies which were perceived as more interesting to these students. One teacher said, "If you organize discussions for primary students, they don't often talk much. But if you give them some group competitions, they will respond better." The other end of the dichotomy is that some teachers would use a 'revise-to-consolidate' approach, which can be illustrated by the comment of a teacher:

"In the lower forms, I would place more emphasis on revising what the students have learnt in the previous lesson...often by Q&A. I usually devote the first 10 minutes of the lesson for this. Other times, I give students dictation. The dictation is to ensure students have revised those words with which they often made mistakes..."

Subject-oriented forces. Some assessment strategies are perceived to be more useful for particular subjects. In this study, some teachers (n = 8, 8.5%) said that they selected assessment strategies based on the syllabus or teaching content. An English teacher said:

"Um... Choosing methods of assessment, I think it depends on the content of the lesson. If the content is activity-based, then I would employ a more lively method of assessment. Maybe a question and answer session... like a competition."

Because of different nature and demands for learning and teaching between subjects, eighteen teachers (19.1%) reported that they would employ different strategies for different subjects. Teachers tend to have different perspectives towards the selection of strategies for the same subject, as stated by two Chinese language teachers. One teacher said,

"There aren't many choices for Chinese language. Normally, teachers assign dictation every week. This allows us to check how many more words students have learnt. That's all."

Another said,

"Chinese language is versatile. I could assess students through drama and radio broadcasting. I could ask them to read aloud a text. Even in a test paper, I could find out a lot of things about students' performance in different areas."

Parent-obliged forces. Accountability is one important issue in assessment. Eventually, students' assessment results will have to be reported to the parents. Many parents favour traditional forms of assessment strategies such as dictations, tests, and examinations possibly because there are marks / grades for easy reference of progress and comparisons with other students. For teachers, a general perception is that it is easier to communicate with the parents with objective tests and examinations. Six teachers (6.4%) indicated that the selection of the assessment strategies needed to take parents' interest into consideration, as reflected by a comment from a teacher, "All the time we use tests and examinations to assess our students. Parents find it easier to understand their child's performance."

Others forces. There are other considerations which may influence how assessment strategies are selected. Some teachers (n = 16, 17%) talked about the assessment strategies they used to cater for the students of different academic abilities and motivational levels. To take care of those who were academically less competent, some teachers gave them assessment tasks that were less challenging. Teachers also

incorporated some techniques in the assessment strategies such as giving these students easier items to do or offering them some hints. For the more competent ones, teachers might use a different tactic. Students who are academically stronger usually finish work faster than others. To satisfy these students, teachers gave them additional tasks. These students would feel happier when they realised that they could achieve more in a given time, the teachers reflected.

Teachers were quite concerned about the workload that different types of assessment strategies generated. A teacher said that her selection of assessment strategies was based on how much workload she had. She admitted that she just used traditional assessment methods. She said, "We have so little time to think about assessing students by different strategies. More often than not, I use traditional methods."

[Insert Figure 1 here]

Conclusion and implications

It is important for school personnel, educators, and policy makers to understand teachers' orientations towards selecting strategies because their choice reflects their dispositions for teaching and learning or inclination to obey the system. Strategies that are more K-oriented such as tests and examinations were frequently reported to be used for assessing students because teachers indicated they were bound by a number of external factors such as the assessment system, parents' views, and tight teaching schedules. More effort has to be made to free teachers from these restrictions so that a better balance can be attained between assessment aimed at measuring knowledge and assessment aimed at learning and understanding.

In addition, although tests and examinations are more inclined to the orientation of knowledge acquisition and retention, teachers could add elements of understanding and conceptual change to designing test and examination papers. In this connection, more attention should be given to how elements of understanding of subject knowledge and conceptual change can be included in tests and examinations. This is considered very necessary particularly in educational domains where tests and examinations are still very much emphasised. Strategies such as project and portfolios tend to be more U-oriented, but can be used for assessing surface learning. Teachers

could be directed to see the strengths of these kinds of strategies and to understand how they could be used to encourage deep learning.

The participating teachers also mentioned other forms of assessment strategies. However, their choice of assessment strategies was highly influenced by external factors including the system and parents. This is plainly problematic. Selection of assessment strategies should not be merely based on whether teachers are able to help students get good grades in the examination or meeting the expectations of the parents and the schools. Choices of assessment strategies should be made based on whether they will provide students with valuable educational experience and their capability in cultivating students' motivation in performance. Strategies selected should aid students in understanding subject knowledge and establishing linkages between knowledge and application in everyday teaching and learning.

For school administrators, accountability is an important issue. Eventually, the results of the students' assessments have to be communicated to different parties including the school board, parents, and their employers. When formulating school's assessment policies, inevitably, choices made are more inclined to selecting those strategies which have a known outcome. They are therefore reluctant to adopt new methods which may or may not enhance results. This will impact on teachers' choice of assessment strategies. The school should consider promoting the use of those assessment strategies which help students synthesize knowledge instead of memorizing knowledge (external support can be sought). Having good assessment planning at the school level, form level, and class level is useful for giving teachers a full picture of what assessment strategies can help students learn. For policy makers, it is important to understand the governing force behind teachers' orientations towards selecting assessment strategies. Much thought must be given to regarding how the message "What good assessment strategies mean to learning" can be conveyed to a school's personnel.

This study was conducted in a specific context – Hong Kong, and only included a small number of the many teachers of Hong Kong's schools. The results of the study could have been influenced by the locality and/or the particular educational culture within the schools from which the participating teachers were sourced. These limitations could be overcome by having a more representative interview population. Opinions could then be drawn from teachers working in different educational contexts and also from school administrators so that they can also be heard. The discussion of the above mentioned flowed from one research method – interviewing. A deeper

understanding can be achieved if the research could go a step further by looking deeply and systematically into how assessments transpire within classrooms.

References

- Atkins, M. J. (1993). Evaluating interactive technologies for learning. *Journal of Curriculum Studies*, 25 (4), 333-342.
- Education Commission (EC) (2000). *Learning for life learning through life, reform* proposals for the education system in Hong Kong. Retrieved July 20, 2007, from http://www.e-c.edu.hk/eng/reform/rf1.html
- Berry, R. (in press). Assessment trends in Hong Kong: seeking to establish formative assessment in an examination culture. *Assessment in Education*.
- Berry, R. (2008). Assessment for Learning. Hong Kong: Hong Kong University Press.
- Carless, D. (2005). Prospects for implementing of assessment for learning. *Assessment in Education*, 12 (1), 39-54.
- Curriculum Development Council (CDC) (2001). *Learning to learn: the way forward in curriculum development*. Hong Kong: Hong Kong SAR Government.
- Curriculum Development Council (CDC). (2002). *Basic education curriculum guide: Building on strengths (Primary 1 Secondary 3)*. Hong Kong: Author.
- Dirks, M. (1997). Developing an Appropriate Assessment Strategy: Research and Guidance for Practice. Paper presented at the *NAU/web.97 conference*, Flagstaff, AZ. Retrieved July 20, 2007, from http://www.eric.ed.gov/ERICDocs/data/ericdocs2sql/content_storage_01/0000019b/80/15/c8/c3.pdf
- Donnan, P. (1996). Assessment practices at Charles Sturt University. *Occasional Papers in Open and Distance Learning*, 19, 1-14.
- Gipps, C. (1998, May). Socio-Cultural Perspectives on Assessment, paper presented at the 24th Annual conference of the International Association for Educational Assessment, Barbados.
- IBM. (2003). Strategic review of Hong Kong Examinations and Assessment Authority. Retrieved July 20, 2007 from Hong Kong Examinations and Assessment Authority Web site: http://www.hkeaa.edu.hk/doc/isd/Strategic Review.pdf
- Klenowski, V. (2002). *Developing portfolios for learning and assessment: processes and principles*. London: RoutledgeFalmer.
- Klenowski, V. (2004). Attending to students' learning needs using assessment. *Assessment in Education*, 11 (2), 213-234.
- Knight, P. & Yorke, M. (2003). Assessment, Learning, and Employability. Berkshire:

- Open University Press.
- Knowles, T. & Brown, D.F. (2000). What every Middle School teacher should know. Portsmouth: Heinemann.
- Maurer, R. (1996). Designing Alternative Assessments for Interdisciplinary Curriculum in Middle and Secondary Schools. Boston: Allyn and Bacon.
- Office for Standards in Education (OFSTED) (2003). *Good assessment in secondary schools*. London: OFSTED.
- Qualifications and Curriculum Authority (QCA) (2003). *Using assessment to raise achievement in mathematics at key stages 1,2, and 3.* London: QCA.
- Raveaud, M. (2004). Assessment in French and English infant schools: assessing the work, the child or the culture? *Assessment in Education*, *11* (2), 193-211.
- Samuelowicz, K. & Bain, J. D. (2002). Identifying academics' orientations to assessment practice. *Higher Education*, 43 (2), 173-201.
- Scott, C. (2007). Stakeholder perceptions of test impact. *Assessment in Education*, 14 (1), 27-49.
- Strauss, A. L. & J. Corbin (1990). *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. Newbury Park: Sage Publications.
- Stiggins, R.J., & Conklin, N.F. (1992). *In teachers' hands: Investigating the practice of classroom assessment.* Albany: State University of New York Press.
- Welch, P. (2006). *Assessment strategies in UK higher education*. Retrieved July 20, 2007, from University of Wolverhampton Web Site: http://pers-www.wlv.ac.uk/~le1810/astrat.htm

Figure 1 Caption

Figure 1. The forces influencing teachers' orientations towards selecting assessment strategies.

