Missing Conceptions of Assessment: Qualitative Studies with Hong Kong Curriculum Leaders¹

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The key to successful of assessment reform depends on how teachers understand the concept and practices of assessment. Brown's (2003, 2004) studies provided initiation for educators in this area. Different versions of Brown's questionnaire on Teachers' Conceptions of Assessment (TCoA) used both in Hong Kong and China rendered new insights and information into the wide range of conceptions and practices of assessment among practitioners in Hong Kong and the Mainland China (Brown, Kennedy, Fok, Chan, & Yu, 2009; Li & Hui, 2007). These results showed that there might be a fundamental difference in conceptions and practices of assessment between practitioners in a Chinese context and those in the West. Qualitative interviews were conducted among five local primary school curriculum leaders of different backgrounds and subject specialists. Preliminary results showed that there are culture-specific as well as context-based differences. These are illustrated as assessment as a way to change students' learning attitude, assessment as identifying students' potentials, and using assessment to prepare students for future challenges. The results are helpful in revealing the possible cultural factors and their influences that contribute to the dissimilarities found in the conceptions of and practices in assessment. This missing link broadens our understanding and allows us to better measure teachers' conceptions and practices of assessment.

Keywords: conceptions of assessment/ Hong Kong curriculum leaders

Recent development in assessment reform in Hong Kong places much emphasis on assessment for learning or change of assessment policy and practice in schools to improve student learning. The idea is to ensure teachers have a full understanding of what assessment means and an effective maneuver of assessment for the benefit of students. As stated in the government document, Basic education curriculum guide, "teachers should use assessments (e.g., as simple as effective verbal questioning, observation of student behavior) and provide immediate feedback to enhance student learning in everyday classroom lessons" (Curriculum Development Council, 2002, Booklet 5, p. 1). Teachers are recommended to focus on why students do not learn well and to employ strategies to improve rather than just to find out what students have learned. However, success of this reform does not rely simply on the approaches or methods which teachers use to assess their students, but may be subject to the way teachers understand the meanings and functions of assessment and how they put these into practice. According to Brown (2003),

The study of teachers' conceptions of assessment is important because evidence exists that teachers' conceptions of teaching, learning, and curricula influence strongly how they teach and what students learn or achieve. [...] all pedagogical acts, including teachers' perceptions and evaluations of student behaviour and performance (i.e., assessment), are affected by the conceptions teachers have about many educational artefacts, such as teaching, learning, assessment, curriculum, and teacher efficacy (p. 303).

In other words, conceptions of assessment influence how teachers instruct their students (Tittle, 1994; Borke, Mayfield, Marion, Flexar, & Kumbo, 1997; d'Ydewalle, 2000), and by and large shape the reform of assessment at least in the classroom level (see for example, Brown & Harris, 2009).

Conceptions, as a more general mental structure, encompass beliefs, meanings, concepts, preferences, and the like (Thompson, 1992). The study of teachers' conceptions of assessment is an important area as it allows

us to make professional judgment if teachers are using all aspects of assessment to improve student learning. The work of Brown (2003, 2004) is critical in theorizing and measuring these conceptions. Traditionally, there are three purposes of assessment: the improvement of teaching and learning (i.e., improvement); certification of student learning (i.e., student accountability); and accountability of schools and teachers (i.e., school accountability) (see for example, Torrance & Pryor, 1998). In addition to this, Brown (2003) offered a fourth purpose: the treatment of assessment as irrelevant to the life and work of teachers and students (i.e., irrelevance), which highlights the degree of inaccuracy (e.g., standard error of measurement) published with any formal measurement that contributes to teachers' conception of assessment. Different versions of Brown's Teachers' Conceptions of Assessment (TCoA) questionnaire were trialed in Hong Kong and the Mainland China (Brown et al., 2009; Li & Hui, 2007). Results of these two studies indicated there are specific conceptions which teachers in a Chinese context hold on to and guide assessment practices and these conceptions are culturally bounded. In other words, there is a need to look into the phenomenon, the cultural influences on the construction of assessment beliefs using methods other than a quantitative approach. Thus, it is this demand that forms the focus of this study which is to investigate in-depth, through a qualitative approach, the conceptions of assessment which is not covered by the Teachers' Conceptions of Assessment (TCoA) questionnaire. The work reported here contributes to gaining an understanding of what conceptions of assessment are typical in a local Chinese context and how these conceptions are formed in such a context.

LITERATURE REVIEW

Assessment in Hong Kong

The assessment system of Hong Kong has long been examination-oriented. Biggs (1996) pointed out the fact that, "most students focus their learning on what they think they will be tested on: the test becomes the curriculum" (p. 8). This value is widespread and shared in the society, partly because "Chinese people have a tradition of changing their lives through examinations" (Dorgan, 2000, p. 15) and mostly due to the fact that opportunities for better education are limited and competition is keen. Therefore, to most students, to do well and excel in examinations become the major purpose of schooling and education. Summative assessments of any kinds are thus reinforced in the system. The situation does not seem to have changed even with the introduction of the education and assessment reform in the last decade. Yu, Kennedy, Fok, & Chan (2006) highlighted the centrally administered territory-wide assessment system, Basic Competency Assessments (BCA) for example, has threatened many schools. The effect of tests and examinations was always strong. Also, based on the case

studies of six local primary schools and a total of twenty-four interviews, Chan (2007) claimed that Hong Kong teachers do not consider changes in assessment policies and practices as equally important as they see the need to prepare students for high-stake examinations. To conclude, while there exists a great deal of literature that documented how to put into practice the idea of assessment for learning (see for example, Black, Harrison, Lee, Marshall, & William, 2003; Carless, 2005; Carless, Joughin, Liu, & Associates, 2006), Kennedy (2007) insisted "examinations remain an important part of assessment cultures in many Asian countries and their influence needs to be taken into account when assessment reforms are discussed" (p. 3).

Conceptions of assessment in a Chinese Context

In recent years, the study and measurement of conceptions of assessment has gained much attention in a Chinese community. The rationale is obvious that a more "reality congruent" understanding of how teachers think of assessment certainly provides insights to whether recent assessment reform is successful in opening up new directions to improve student learning and to promote changes in assessment policies and practices. With the work of Brown (2003, 2004) - the Teachers' Conceptions of Assessment (TCoA) questionnaire – there were studies in Hong Kong and the Mainland China that looked into the specific conceptions of assessment, which teachers in a Chinese context hold on to. Brown et al. (2009), for example, administered nearly 300 TCoA questionnaires (a Chinese translation of the 27-item short version TCoA questionnaire) to teachers of 14 Hong Kong primary and secondary schools. Results indicated that teachers believed learning outcomes were improved by using assessments to make students accountable and by preparing them for examinations. These suggested that broader Chinese cultural norms concerning examinations are part of school culture and may provide barriers for the assessment reform agenda in Hong Kong and other Confucian societies.

Li and Hui (2007) administered another Chinese translation of the long version of the 50-item TCoA questionnaire to all college lecturers (103 in total) of Hangzhou Wanxiang Polytechnic in the Mainland China. Results indicated that these college lecturers are holding a very different perception from what we commonly agreed to as identifying students' strengths and weaknesses and facilitating student learning. They concerned both if they have done well the required task of training their students to excel in examinations, and looked into the assessment results and evaluate if they have revealed what they intended to measure. Therefore, the assessment results that reflected in examinations did not necessarily infer how well students were learning and if they knew their strengths and weaknesses.

These two studies notably rendered new insights and information into the wide range of conceptions and practices

of assessment among Chinese practitioners and suggested there might be fundamental difference in the conceptions of assessment between practitioners in a Chinese context and those in the West. These conceptions at the moment might not have been covered by the TCoA questionnaire which is quantitative in nature. In other words, there needs to explore the nature of these conceptions in a more in-depth manner, through a qualitative approach, and to find out the perspectives of teachers in a Chinese context have on assessment. Thus, in times when the reform of assessment has been activated, the present study is significant to investigate these missing conceptions of assessment from the perspectives of curriculum leaders who have been active in implementing different measures of assessment reform in schools.

METHODS

Participants

Participants of this study were a cohort of five curriculum leaders, four female and one male, of different local primary schools. They had been in the teaching profession for at least 10 years. The selection criterion for the five participants was that they have been active in implementing different measures of assessment reform in their schools and have become leaders in the area. Three of them were participants of a research project that funded by the Quality Education Fund (QEF) of Hong Kong. This QEF project aimed to assist schools improve student learning through assessment.² Two of them were subject panelists and one of them was curriculum leader and holding the position of Primary School Master/Mistress (Curriculum Development), hereafter referred to as PSM (CD). The interviews were conducted in July 2007 by the co-investigator of the project and findings of these interviews had never been published.³

The other two curriculum leaders were selected purposively for investigating the (missing) conceptions of assessment. They were curriculum leaders and holding the position of Primary School Master/Mistress

(Curriculum Development), PSM (CD) in short. They were also the Executive Committee Members of a local professional organization, The Hong Kong Association of Curriculum Development and Leadership (HKACDL), which was in a position to promote curriculum development in Hong Kong. These two interviews were conducted in September 2008 by the author and another experienced interviewer.

It is important to note that interviewing helps to capture viewpoints of a particular group of people. It facilitates participants to express their views, often adding inner perspectives – "how" and "why" – to particular outward behavior. The information collected thus gives researchers more room to make precise and meaningful interpretations (Fontana & Frey, 1994; Measor, 1985).

Each of the participants was given a code for anonymity: PtcptS, PtcptF and PtcptC (male) for the three participants of the QEF project, and PtcptL and PtcptN for the two purposively selected PSM(CD)s.

Instruments

The interview guide adopted by the QEF project consisted of two major themes: (1) how they understand student assessment, and (2) how they transfer the idea of formative assessment into practice. For the interviews with the two purposively selected PSM(CD)s, another interview guide was developed. The interview themes included: (1) what they see as the principles and functions of assessment, (2) how they think toward the assessment reform, and (3) the experience they have in translating and implementing different assessment reform policies and practices in school. Table 1 shows the link between the interview themes of the two sets of interviews.

Procedures

Interviews were conducted in participants' school and they were in the local Chinese dialect (Cantonese). Each interview lasted for about one and a half hour. All interviews were audio-tape recorded, transcribed, and translated into English as necessary. Written transcripts were analyzed

 Table 1

 Link Between the Interview Themes of the Two Sets of Interviews

Interview themes for the three participants of the QEF project	Interview themes for the two purposively selected PSM(CD)s	
How do they understand student assessment?	What do they see as the principles and functions of assessment?	
	How do they think toward the assessment reform?	
How do they transfer the idea of formative assessment into practice?	What is the experience they have in translating and implementing different assessment reform policies and practices in school?	

through a process of identifying significant categories underlying their views (Bryman & Burgess, 1993; Miles & Huberman, 1994). In the discussion of the missing conceptions of assessment, an interpretative summary, supported with illustrative quotes, will be provided. This is intended to help readers understand the way by which participants answered the questions, the meanings of the significant categories, and most important the strong feelings these participants held regarding conceptions of assessment.

RESULTS AND DISCUSSION

In general, all the teachers interviewed had a common understanding of what assessment means. They thought of assessment as providing useful information to teachers as well as parents and other key stakeholders of what students have learned. Monitoring students' progress and identifying their weaknesses were often quoted in the interviews. As PtcptS explained, the rationale underlying the design of an assessment task was that, "we hope not only students but also parents and teachers could benefit from the task and ultimately feedback learning and teaching [...] through collecting students' performance, we have a lot of data to refer to, and we can then follow up with students' progress and see if they have improved". PtcptF and PtcptN echoed this and they said, "we have introduced a new mid-term assessment which aims to feedback to parents, in written form, what their children are good at and what they are weak in" and "assessment is for reporting to school and parents [...] and ultimately to improve students' learning". This common understanding is shared among Hong Kong teachers as the government has been emphasizing and promoting the importance of assessment in student learning in its reform documents (Curriculum Development Council, 2000, 2001, 2002). The message and recommendation are that there should be a change in assessment practices and schools should put more emphasis on "assessment for learning" as an integral part of learning, teaching and assessment cycle. Therefore, as PtcptL pointed out, "I learn about the idea of 'assessment for learning' in 2003 in a large forum that organized by the government [...] the main concern is to report students learning performance, to feedback to them, and to improve our teaching accordingly".

However, apart from this common understanding, analysis of the interviews revealed three distinctive culturally and contextually bounded conceptions of assessment which were not covered by the Teachers' Conceptions of Assessment (TCoA) questionnaire. These included "change of students' learning attitude", "identifying students' potentials" and "to prepare students for future challenges". These conceptions link closely to the education and assessment reform in Hong Kong and across other Asian countries. While the reform highlights a paradigm shift of what students need to demonstrate as "success" and how to better prepare them to meet the demand of a knowledge-based society, the five curriculum leaders in this study concerned how assessment could help to make those tasks possible. In the following, these conceptions will be elaborated in details, and Table 2 summarizes information about the prevalence of these conceptions among the five participants.

Change of students' learning attitude

With the impact of examinations on education opportunities and success, Hong Kong students in general favor a surface approach of learning. According to Biggs (1992) and Biggs, Kember, & Leung (2001), a surface approach of learning refers to the situation that: (1) students simply want to get the learning task out the way without failing, i.e. passive learners; and (2) they tend to use rote learning as a strategy, focusing on what appear to be important and reproducing them in assignments or examinations. This learning motive and strategy indeed affects a lot how students participate in classroom learning. For example, they are likely to subordinate their

 Table 2

 Prevalence of Conceptions of Assessment Among the Five Participants

Participants		Conceptions of assessment in a Chinese context			
Туре	Code	A common understanding	Change of students' learning attitude	Identifying students' potentials	To prepare students for future challenges
Participants of QEF project	PtcptS	Q	Q	Q	S
	PtcptF	Q	Q	S	Q
	PtcptC	S	Q	S	Q
Purposively selected PSM(CD)s	PtcptL	Q	Q	Q	Q
	PtcptN	Q	S		S

Note: "Q" means quoted & "S" means participant who shared the conception.

participation and learning performance to a more dominant culture, like the Chinese patterns of socialization which value children as being gentle, obedient, submissive, and non-competitive (Bond, 1991; Ho, 1986). In fact, evidence was found in the interviews that students were used to being passive and thus teachers intentionally wanted students to be more active and better engaged in their learning. Change of students' learning attitude became a major conception when the five teachers thought of and used assessment. As PtcptS illustrated, "our students are just lazy and they don't even want to remember [spell] the English words, however, I believe they are all smart kids but if we don't push them, they won't learn by themselves [...] thus, we want them to do well in dictations and so we have amended the policy and increased the percentage score for dictations". Let alone the debate of whether giving marks was over-emphasized, PtcptS was sensitive to its emotional impact on students' learning attitude. She said, "we do worry if such a change will create students with a sense of failure, and if this is really the case, then students may 'give up' their learning'.

A positive and active learning attitude is associated with a sense of responsibility and reflection in students. As PtcptS claimed, "assessment is meaningful only if we request students to have revision before, and since they realize the importance of revision, they will pay more attention in class [...] the rationale is that we want students to be responsible for their own learning". Many of the assessment tasks actually serve the purpose of cultivating this responsibility and reflection. For example, as elaborated by PtcptF, "students have to know their own ability [...] if we want them to improve, then we have to equip them with the ability to learn independently, which means even without the help or guidance of others, students could selfassess themselves, ask others and learn". This emphasis on responsibility and reflection matches perfectly well with one of the assessment for learning principles, which is: "assessment for learning develops learners' capacity for self-assessment so that they can become reflective and selfmanaging" (Assessment Reform Group, 2002).

As if responsibility and reflection are the sufficient conditions for positive learning attitude, then motivation and interest as literature suggested will be the necessary conditions (McClelland, 1987; Weiner, 1992). As PtcptC highlighted, "the major function of assessment is to monitor students' learning and to develop their interest in it; [for example, in Math,] although we have designed many questions, we don't want mechanical drilling, and if students are interested, then we will give them more questions; it's not that we first give them all the questions and make them feel bored and eventually don't like at all the subject". PtcptS even considered this interest as the very first criterion in the design of teaching and assessment and she said, "when this term started, we realized students are not very interested in learning English, and so we did take this into planning [...] we didn't intend to push up

their learning of grammar or so but rather made them feel interested in learning English, willing to speak in English and not hate the English lessons".

Therefore, as elaborated by the five participants in the interviews that, there were different innovative assessment practices in school, as integrated with teaching and learning activities, which aimed to promote students' interest and their active engagement. For example, there were: (1) "competition" and "extra challenging questions" in PtcptS's English lessons; (2) "student-directed dictations" in PtcptF's Chinese lessons; (3) "games" in PtcptC's Math lessons; (4) "tiered assignments" in PtcptL's school; and (5) "mini-projects" in PtcptN's English lessons. To illustrate how interesting these tasks are, for example, PtcptF's "student-directed dictations" allowed students to choose either Part A or B (Part A was more difficult than Part B) of the required Chinese text for dictations. Although there were only two parts to choose from, the less-able students were more motivated toward the task as they on one hand were assessed against the standard (Part B) and on the other hand challenged to have better performance (Part A). Thus, as evidenced by PtcptF, "for those who choose Part B, they do not feel underprivileged because we have informed them first to accept their ability and then go for Part A gradually". Also, as for the "tiered assignments", PtcptL stressed that, "it does not only arouse students' motivation but also make them more focusing on classroom tasks".

In summary, to the five participants, assessment was being thought of and used as a strategy to promote students' positive and active learning attitude. To achieve this, developing students with a sense of responsibility and the capacity for self-assessment was found to be critical. This is because students have to learn by themselves and teachers are there to guide and facilitate. Thus, there reported in the interviews many assessment tasks which aimed to promote students' learning motivation and interest and by and large their positive learning attitude.

Identifying students' potentials

The current education reform policy, as emphasized by the Education Bureau (EDB), recommends schools to reflect upon their strengths and to decide on ways to achieve the goal of quality school education. The focus is to provide students with all essential life-learning experiences for whole-person development in the domains of ethics, intellect, physical development, social skills, and aesthetics (Curriculum Development Council, 2000, 2001, 2002). Although it is a significant breakthrough giving individual schools the power and freedom to put into practice their own reform measures, teachers are all concerned on how best to create the environment for students to nurture the development of these essential life-learning experiences and how best to bring out the full potentials of students at their early age. There was evidence in the interviews that teachers linked this nurturance and identification of potentials with assessment. As PtcptL said, "the selection purpose of assessment is understandable because we have limited places for higher education and every society is facing the same resource problem, and therefore assessment is critical as it allows students to know about their strengths and to understand themselves better". Students are all different and teachers therefore see assessment as a means to recognize the full range of achievements of students. An interesting example was quoted by PtcptS in explaining the importance of this identification. She said, "there's a P.2 student who I taught before and who was quite naughty, he didn't follow at all teachers' instruction and his academic performance was poor, however, later we discovered that he's good at basketball and actually got some talent in it [...] it was the PE teacher who assessed him and realized his potential, I remember he said: 'the kid has high flexibility in his wrist movement' and so we put him in the school basketball team for training". Eventually, because of this identification and recognition, that student improved his attitudes and behaviors. As PtcptS said, "it's quite amazing that he has changed his attitudes and behaviors after an open demonstration of 'basketball shooting' which we invited him to". Acceptance, satisfaction and confidence could have explained the outcomes, however, what is worth noting is that many students might not have high scholastic achievement, yet would still make sound contribution to the society due to their personal qualities and potentials.

The nurturance and identification of potentials certainly benefits the full range of students, because individual students' development needs are taken into consideration. To further explain why assessment is critical for students to know about their strengths and to understand themselves better, PtcptL added, "the underlying thought of our assessment is to identify and cater for individual differences, for differentiation, that is to help students to know how well they are doing, to assess if they have met the standard and to help them to develop". Accordingly, there were both "pull-out programmes" (for the gifted students) and "remedial classes" in PtcptL's school, and more interesting, at the moment, if any of P.6 students was identified as gifted student, he or she would then be exempted from the final examinations. In fact, the emergence of this conception of identifying students' potentials relates too to the previous analysis of the influence of the Chinese patterns of socialization on students' learning attitude that students are just not keen enough to exhibit their potentials. Since these potentials fall onto any of the domains in ethics, intellect, physical development, social skills and aesthetics, the high-stake paper-and-pencil types of assessments obviously do not warrant the task. Therefore, various lowstake assessments were found in participants' schools. For example, there were: (1) "Student Ambassador Passport" in PtcptS's school to foster students' good conduct of helping others; (2) "Reading Aloud at Home Scheme" in PtcptF's school to develop students with a good sense of Chinese

language; (3) "Project-based Learning" in PtcptC's school to nurture students' mindset for scientific inquiry; and (4) "Portfolio" in PtcptL's school to let students decide and document their own learning evidence.

In summary, to all except one participant, assessment was being used as a means to nurture and identify students' potentials. These potentials are products and testimonies of the required life-learning experiences for whole-person development. They are not bounded to one's academic performance but rather freed to the domains of ethics, intellect, physical development, social skills and aesthetics. Therefore, to ease the task, different low-stake assessments were found in the interviews for opening up students with possibilities and opportunities. This conception matches well with what the early Reform Proposal reminded us.

Teachers could take into account the results of assessment in planning the teaching syllabus, designing teaching methods and giving guidance to individual students to help them learn effectively and exploit their potentiality fully. This will also enable students to have a deeper understanding of themselves. (Education Commission, 2000, Paragraph 7.12, p. 46)

To prepare students for future challenges

Compared to a tradition of emphasizing the sole importance of subject and discipline knowledge, the current education reform policy highlights too the development of attitudes and generic skills. Attitudes refer to one's personal dispositions toward particular tasks and the stated generic skills include collaboration skills, communication skills, creativity, critical thinking skills, information technology skills, numeracy skills, problem solving skills, self-management skills, and study skills. These generic skills are important skills because they are "fundamental to learning" (Curriculum Development Council, 2002, Booklet 1, p. 10), and these are developed through learning and teaching in the context of different subjects and are transferable from one learning situation to another. In other words, with these attitudes and generic skills, students are better prepared to fit in our society which is knowledgebased and which emphasizes lifelong learning. The lifelong learning movement is prevailing and authoritative because, according to the Organization for Economic Cooperation and Development (OECD, 2007):

Lifelong learning means that individuals can have access to and are willing to participate in ongoing, not recurrent, education. This "learning to learn" philosophy can begin with toddlers and it can extend throughout a person's life with branches that can extend into various experiences and careers.

Thus, it is the responsibility of teachers to make sure that the teaching-learning process and assessment do support the context for developing attitudes and generic (and lifelong learning) skills. A non-traditional two-way, an interactive approach of teaching and learning is preferred as it rejects surface learning, obedience and passivity with imaginativeness and curiosity. Also, assessment should move away from high-stake examinations and going to a direction that values real world performances. All the teachers interviewed shared this view. As PtcptL said, "examinations are needed but at the same time we have other types of assessments, the non paper-and-pencil types, for example, we have 'science inquiry' of doing experiments and we have many other performance assessments [...] different assessment tools serve different purposes and it all depends on what we want". Group work was another example that shared by PtcptF: "we require students to study and work in groups, we emphasize a lot of group learning because this is what the society needs, i.e., cooperation and collaboration [...] therefore we require teachers to incorporate group work as part of the formative assessment and we hope students can improve their learning through group work". Obviously, the purpose of these assessments is to have students practice more the required attitudes and generic skills and to prepare them more for the future.

The incompetence of examinations for attitudes and skills practice was also mentioned in the interviews. As highlighted by PtcptL, "be frank, report book [as informing examination results] can only tell the cognitive development of students but not other important aspects". These other important aspects included: (1) "skills to analyze and solve problems" and "good conduct of helping others" (PtcptS); (2) "ability to learn independently" and "good will to question" (PtcptF); (3) "attitudes to work in groups" and "problem-solving skills" (PtcptC); (4) "skills in compiling learning portfolios" (PtcptL); and (5) "high-order thinking skills" and "creativity" (PtcptN). Contrasting the life-learning experiences discussed in the last sub-section, these attitudes and skills are more outcome-based. In fact,

evidence was found in the interviews that these were even used as criteria and descriptors for performance check. Thus, observations and self- and peer-assessments were often used to meet the task.

In summary, to the five participants, assessment was being utilized as a context for the practice of the attitudes and skills required for future success. To put this conception in a sentence, as PtcptC said, "we conduct different modes of assessment because we want to equip students with the ability and competence to learn independently".

CONCLUSION

This study aimed to investigate in-depth the missing conceptions of assessment among Hong Kong curriculum leaders. Results of the interviews with five curriculum leaders of different backgrounds and subject specialists retrieved three cultural-specific and context-based conceptions of assessment which were not covered by the Teachers' Conceptions of Assessment (TCoA) questionnaire. They were "change of students' learning attitude", "identifying students' potentials" and "to prepare students for future challenges". These missing conceptions related closely to the recent education and assessment reform which required students to actively learn, be developed with reference to one's own strengths and potentials, and be prepared to meet the challenges and excel in a knowledge-based society. It was evidenced that changes in assessment in schools did go along with the reform agenda and teachers were there to work it out and make possible the preferred outcomes. With reference to Brown's Teachers' Conceptions of Assessment (TCoA) questionnaire, these missing conceptions associated strongly with and extended the domain of "improvement", which means "assessment improves students' own learning and the quality of teaching" (Brown, 2003, p. 304). Figure 1 shows the link between these missing conceptions and the work of Brown (2003, 2004).4

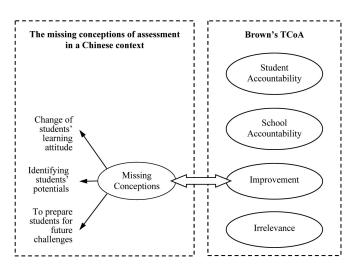


Figure 1. Link between the missing conceptions of assessment and Brown's TCoA.

The study of teachers' conceptions of assessment is critical because conceptions affect practices and students strategically learn according to what is being assessed (Satterly, 1989). Also, it provides clues to how assessment reform is being understood and practiced in schools and if this understanding has opened up new possibilities for students. Thus, the three retrieved missing conceptions have broadened our understanding of this reform and conceptions of assessment in a Chinese context. However, before going to a conclusion of how teachers in a Chinese context think of assessment, there needs further studies, perhaps by means of survey questionnaire and psychometric analysis, to validate the possible dimensions and indicators suggested.

NOTES

- ¹ Part of the research reported here has drawn on data from the Quality Education Fund (QEF) Project, *Assessment for productive learning: Developing an holistic conception of assessment's contribution to student learning.* The views expressed are those of the author and not of the QEF. Also, an earlier version of this paper was presented at The European Association for Research on Learning and Instruction (EARLI), 13th Biennial Conference Fostering Communities of Learning" held in Amsterdam, The Netherlands, August 25 29, 2009.
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