Prospects for the implementation of assessment for learning

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This paper analyses aspects of a Hong Kong school curriculum reform, which recommends amongst other things, a greater focus on assessment for learning. It outlines the principles of the reform as it pertains to assessment and discusses how structural changes are being employed to lend support to changes in the assessment culture in Hong Kong. The paper draws on a previous problematic attempt to introduce formative assessment through the Target-Oriented Curriculum initiative. Two examples of assessment for learning practice of 'early adopters' are used to illustrate both the potential and some of the challenges of implementation in the Hong Kong primary school context. From these cases, are drawn out some of the facilitating and inhibiting factors impinging on the implementation of assessment for learning in schools, building on a model of professional growth.

Introduction

Attempts at reforming teaching, learning and assessment in Hong Kong have revealed that assessment has usually been the most resistant feature to reform (Morris *et al.*, 2000a). This has particularly been the case when attempts to introduce formative assessments (Morris *et al.*, 1999) or school-based teacher assessments (Yung, 2001) have challenged a traditional emphasis on fairness and objectivity as the main features of the assessment process (Biggs, 1998). An examination-oriented culture is firmly embedded both in Hong Kong (Pong & Chow, 2002), and in other Confucian-heritage cultures (e.g. Morrison & Tang, 2002).[1] When examinations dominate the curriculum, there is a likelihood that moves to introduce progressive practices may be stifled, unless there is a corresponding change in high-stakes examinations (cf. Cheng, 1999).

In contemporary Hong Kong, there are ongoing attempts to reform teaching, learning and assessment through a 'Learning to Learn' reform which contains a vision

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of students attaining 'all-round development' and 'life-long learning' (Curriculum Development Council, 2001, p. i), hereafter, CDC). As part of this reform agenda, assessment for learning[2] (hereafter AfL) is promoted to 'reduce excessive tests, examinations and dictations' (p. iv) and 'help to provide information for both students and teachers to improve learning and adjust teaching' (p. viii). These reform principles are also supported by modifications to structural elements that may otherwise hinder the implementation of the reform. These structural issues include the status of examination providers and reductions in high-stakes examinations. By focusing on both learning principles and structural factors, the relevant agencies are seeking to achieve assessment reform where previous attempts have foundered.

Experiences of change over the last 30 years have revealed that reform is a complex and elusive endeavour (e.g. Tyack & Cuban, 1995; Fullan, 1999). It has become a truism that change cannot be achieved without actively engaging the hearts and minds of teachers. Professional development of teachers, whilst being central to reform, needs to go further than 'delivery models' comprising courses, workshops or other such events (Knight, 2002). What usually motivates teachers is not mandated change, but 'making a difference' in the lives of the pupils they teach (Day, 1999).

This article focuses on two central elements of a reform in Hong Kong: assessment change and professional development. A useful conceptualization to frame the study is the model of professional growth elaborated by Clarke & Hollingsworth (2002). They propose four change domains in their interconnected model:

- external sources of information or stimulus, such as an innovation (external domain)
- teacher knowledge, beliefs and attitudes (personal domain)
- professional experimentation, such as trialing of an innovation (domain of practice)
- salient classroom or pupil outcomes resulting from the experimentation (domain of consequence).

Change may be located in any of these domains and may be translated into change in another domain through a process of reflection and enaction. These domains are also contextualized by a Change Environment, wider external factors which can facilitate or constrain teacher professional growth or the implementation of an innovation.

The purpose and structure of the paper is as follows. The principal focus is on analysing the potential for implementation of the AfL reform agenda, within the framework proposed by Clarke and Hollingsworth (2002). Features of the Hong Kong context which impact on the prospects for implementation of the reform are examined, particularly a previous innovation, the Target-Oriented Curriculum (TOC); this analysis relates to the Change Environment and the external domain stimulus in Clarke and Hollingsworth's model. Two examples of primary practice from 'early innovators', taken from the subject of English as a second language, are then discussed. The discussion of these cases encompasses the other three domains in Clarke and Hollingsworth's framework. The value of the paper lies in

analysing AfL in classroom practice within a specific international context, in which there are both facilitating and inhibiting factors for implementation. The conclusion to the paper also draws out a wider exploratory cluster of factors impacting on the implementation of AfL in schools and the Clarke & Hollingsworth model extended.

Hong Kong assessment reform agenda

In this section are some brief comments on the Hong Kong primary school context, preceding a description of the learning and assessment principles underlying AfL in Hong Kong. Following this, some of the structural issues that are intended to support the implementation of AfL are examined.

Contextual background

Primary schooling in Hong Kong is of 6 years duration, starting from the age of six years old. Teachers have traditionally been trained through two- or three-year sub-degree certificate programmes, although in recent years more and more have been upgrading their qualifications to degree level. Teachers are specialists rather than generalists, usually teaching two to three subjects, although their degree of 'specialism' in their second or third subject may be limited.[3] The three main primary school subjects of Chinese, Mathematics and English (as a second language), dominate the curriculum. Teaching is generally traditional and text-book oriented (Adamson & Morris, 1998), an orientation which is reinforced by conservative views of parents, who are perceived to demand large quantities of homework and frequent testing. Biggs and Watkins (2001) discuss how unpromising conditions, such as large class sizes and repetitive drilling for examinations, still produce quite positive results, due to a complex array of factors, including diligence, perseverance and motivation to achieve. In such a climate, innovative pedagogical practices, often derived from western models, are usually viewed as unnecessary or impractical (Adamson & Morris, 1998).

At the end of primary schooling, students are divided into three bands of achievement (five bands before 2001). Band 1 schools are much sought after and often have elite status in view of their reputations for high academic standards. The allocation of students to bands was previously based on internal results calibrated against an external Academic Aptitude Test (AAT). The AAT was a test of verbal reasoning (in Chinese) and mathematical ability and had a largely negative impact on primary schooling (Biggs, 1998). Its removal in 2001 reduced the drilling and examination preparation that tended to distort upper primary school education. Now secondary school places are determined by a method of internal results calibrated against previous academic standards of the school in external assessments. This interim method is not ideal and the establishment of a long-term secondary school placement mechanism is currently under review (Hong Kong Government, 2004).

Teaching, learning and assessment principles

In the period 1999–2001, the Hong Kong government carried out a wide-ranging consultation as preparation for educational reform. The reform was underpinned by rhetoric of life-long learning and the needs of the twenty-first century, buttressed by a political dimension whereby the post-colonial government tried to make its mark in one of the key policy areas for the modern state. The ensuing reform blueprint was entitled Learning to Learn: Life-long Learning and Whole-person Development (CDC, 2001).

As part of this reform, there were a number of recommendations focused on enhanced AfL, informed by work in a number of countries, particularly the UK and Australia. Influential sources included: the Black and Wiliam (1998) meta-analysis, which argued that strengthening formative assessment can produce significant learning gains; school-based research into formative assessment processes (e.g. Torrance & Pryor, 1998); and practical strategies for monitoring and promoting student growth (e.g. Masters & Forster, 1996; Clarke, 2001).

The relevant section of the CDC proposals sets the stage as follows:

> Assessment is the practice of collecting evidence of student learning. It is an integral part of the learning and teaching cycle rather than a separate stage at the end of teaching. It helps to provide information for both students and teachers to improve learning and teaching (assessment for learning). (CDC, 2001, p. 80)

The document argues for a move away from the dominance of summative tests and examinations, in favour of greater integration of assessment with teaching and learning, and a focus on learning processes as well as products (CDC, 2001, pp. 80–83). CDC (2001) lists a number of practices, including the following[4], which it claims will encourage AfL:

- The development of school assessment policies, including more diversified modes of assessment and a reduction in tests and examinations;
- A focus on feedback to inform students of their strengths or weaknesses and how to address the weaknesses;
- Opportunities to do assessment collaboratively with students or to allow students to carry out peer or self-assessment;
- Sharing with students the goals of learning, so that they can recognize the standards they are aiming for;
- The use of assessments that probe higher-order thinking skills, creativity and understanding rather than rote memorization of facts.

A thread running through these principles is that they are focused on teaching and learning, rather than traditional concepts of assessment as measurement. Their basis within current learning theories includes, for example, Shepard's (2000) social-constructivist framework of assessment for learning and her warning that externally imposed testing for accountability discourages thoughtful AfL classroom practices. In similar vein, Black (2001) places formative assessment within approaches to learning, which emphasize constructivism, situated cognition and social discourse. He

contrasts these theories with behaviourism and indicates that behaviourist approaches are consistent with a neglect of thinking processes; assessments composed of short decontextualized questions; and a strategy of 'teaching to the test'.

Structural changes

These principles are also supported by structural changes. As indicated earlier examinations have had a major and not always positive impact on schooling in Hong Kong (see Choi, 1999, for a review). High-stakes norm-referenced examinations have been administered by the Hong Kong Examinations Authority, a self-financed public body, quasi-independent of government and curriculum agencies. In 2002, the authority was renamed Hong Kong Examinations and Assessment Authority (HKEAA) to reflect 'more accurately the new role of the authority in providing assessment that facilitates student learning' (HKEAA, 2003, p. 1). The HKEAA also commissioned a consultancy report (IBM, 2003) that noted:

● Disconnections in assessment policy and practice;
● A view of assessment that occurs at the end of the education train, instead of something that influences learning and teaching;
● A range of bold reforms to improve learning and teaching without substantial assessment reforms;
● A gap between a philosophy of curriculum reforms *for* learning and the paradigm of assessment *of* learning.

The consultants recommended the development of a closer relationship between HKEAA and the main government body concerned with the curriculum, the Curriculum Development Institute (CDI). In a parallel development, over the long term the HKEAA is planning to move from norm-referenced to standards-referenced assessments.

Two other ongoing structural reforms are in process. Firstly, progress is being made in the development of Basic Competency Assessments, including web-based resources to support learning and centrally administered pen and paper tests. The (rather vaguely) stated purpose of these tests is that identifying the general standards of students can inform government planning (Hong Kong Government, 2004). Secondly, there are proposals for a move from a system of seven years of secondary schooling and three years of university to one of six plus four. One of the likely outcomes of such a reform would be a reduction in high-stakes examinations, as there will no longer be a need for major tests both at the end of Secondary 5, (Year 11 or current Hong Kong Certificate of Education Examination) and Secondary 7 (Year 13 or Hong Kong Advanced Level).

Whilst in the past, reforms in Hong Kong have often been of a short-term nature and often fizzled out before becoming established (Morris, 1995, 2000, 2002), there appears to be a seriousness of commitment to these reforms, allied to the structural support discussed above. The development of short-term, medium-term and long-term strategies for change (CDC, 2001) provides a basis for allowing for

change to evolve over time. Such a reform however, does take place in both the global and local context in which reform overload is an increasing burden on teachers and there is an ever-present danger of change rhetoric failing to lead to substantive improvement.

In summary, the re-branding of the HKEAA, the removal of the AAT and the future medium and long-term plans for ongoing change provide support for reform of teaching, learning and assessment. Such structural changes are valuable, yet may only impact slowly on what goes on in the classroom. The progress of assessment reform in the classroom is discussed later in the paper. Structural issues that remain include large class sizes (usually 33–38 students) and a relatively low standard of qualifications of the teaching workforce (see note 3).

Formative assessment: the TOC experience

In order to shed further light on the context for the implementation of AfL, I draw now on a previous large-scale attempt to reform learning and assessment practices through the TOC initiative. In Clarke and Hollingsworth's (2002) terms TOC forms an important part of the external domain stimulus and an aspect of the Change Environment. As a key precursor to AfL, TOC was a stimulus and pressure for teachers to reconsider and experiment with different assessment practices. TOC was a form of outcomes-based education in which students progressed towards specified learning targets through carrying out tasks (Carless, 1997; Morris, 2002).

TOC aimed to develop a more learner-centred, activity-oriented pedagogy based on constructivist principles. Despite pockets of success, this reform failed to take root adequately and was eventually abandoned (Morris, 2000). Cheung (1996) argues that one of the factors militating against the successful implementation of TOC was its lack of congruence with the notions of behaviourism underlying accepted learning theories amongst Hong Kong teachers (cf. Black, 2001 above). Initiatives in Hong Kong which have sought to promote constructivist approaches (cf. Shepard, 2000, above) have had limited success (Morris *et al.*, 2000a).

In terms of assessment processes, TOC promoted similar goals to the current reform but using the term formative assessment instead of AfL. In the TOC reform, formative assessment was intended to align with teaching and learning processes, but became associated (or misinterpreted) with the recording of data about learners. Such records of achievement stated what pupils were able to do; partially able to do; and not yet able to do. Teachers did not have the time nor the skills nor any support in feeding back this data from record-keeping into the classroom (Clark *et al.*, 1999), and as Black *et al.* (2003) point out assessment can be regarded as formative only if it leads to actions by teachers and/or students, which improve learning. Teachers found themselves doing extra work in collecting assessment data but without the psychic reward of enhanced pupil learning.

Morris *et al.* (1999) reported further resistance to TOC assessment processes in that teachers held beliefs that favoured reliable, formal assessments and a strong separation between teaching and assessment. Following from this, teachers did not see

assessment as something that should involve their professional judgement and had a reluctance to assess through any means that might be regarded as non-objective. The implementation of TOC formative assessment was further hindered in that the AAT was still in place, so that teachers were struggling to reconcile formative processes with a high-stakes summative examination (Morris *et al.*, 2000a).

Overall, formative assessment in TOC over-emphasized the recording of data and did not have significant positive impact on pupils. The combination of increased paperwork through record-keeping and a system which was both misunderstood and not congruent with teacher beliefs led formative assessment to be considered by teachers as the most unpopular aspect of the TOC reform (Morris *et al.*, 2000b). These problematic assessment features were one of the factors in the abandonment of TOC (Morris, 2000).

In view of this analysis of how TOC and formative assessment foundered in the 1990s, one might have expected CDC (2001) to discuss how Learning to Learn and AfL would resolve some of these challenges. A striking omission however, from the CDC document is that it makes very limited reference to formative assessment (or TOC) and there was no attempt to clarify its relationship with AfL. For teachers who were unable to implement formative assessment under TOC, should they regard AfL as the same or something new and superior? Two negative features of reform in Hong Kong are illustrated here: firstly a failure to build on past experiences; and secondly using different terms to describe similar concepts in the hope that a new label may distract from the ineffectiveness or unpopularity of a policy.[5]

To summarize the argument developed so far, the overall aims of the AfL reform and its learning principles are based on international good practice. A start has been made on a number of structural reforms, designed to support classroom change. Challenges remain in terms of previous unsuccessful attempts at reform and lack of congruence between current teaching philosophies and AfL principles.

Examples of innovative assessment practice

In this section, two examples of 'innovative practices' related to the theme of AfL are discussed, involving teachers (Sue and Winnie) with whom I have collaborated. Both are taken from upper primary school (Key Stage 2) English as a second language classes. Whilst not necessarily innovative at an international level, in the Hong Kong context I believe the examples represent progressive practice in line with the current reforms. The two cases are discussed in order to show the potential and challenges of the reform and illuminate some of the implications for practice. They provide a class-room-based perspective in the terms of Clarke and Hollingsworth's (2002) domain of practice.

Both Sue and Winnie had previously been involved in implementing the TOC reform. Sue was tentatively positive about TOC, but had found the recording and reporting of assessment information a burden upon her already heavy workload. The parents in her school did not understand the TOC way of reporting information and had expressed a preference for raw scores and class ranking rather than profiles of

achievement. Winnie was very positive towards TOC teaching and learning approaches as they were generally congruent with her own teaching style. She was, however, somewhat resistant to the collection of assessment data as she confessed that did not know how to make use of the TOC records of achievement. She also reported concerns from colleagues about how 'formative assessment can provide accurate assessments'. Although the TOC assessment experience for Sue and Winnie had not been particularly positive, it had provided an external stimulus for reflection on different practices. This provided some foundation for future experimentation more focused on what they were most interested in—the learning of their pupils.

Before proceeding, it is worth pointing out that both of these teachers are not representative of the wider Hong Kong teacher population and are exceptional in a number of ways: firstly, in their willingness to collaborate with a non-Chinese teacher educator, such as myself; secondly, their strong academic qualifications (graduates, subject-trained and studying at Master's degree level); thirdly, their teaching approaches embrace 'progressive' theories, such as constructivism, which they have been exposed to in their training and further studies.

Cyber Zoo case

The first example discusses work reported in Wong (2002). As part of an M.Ed assignment on teaching, learning and assessment, Sue Wong carried out a 'Cyber Zoo' project with her primary 6 class (Year 6, pupils aged 11–12 years old) focusing on the topic of animals in different climates. The stated objectives of this activity were to increase the students' ability in sorting information; to practise their presentation skills in English; to discuss and share ideas through collaborative learning; and to increase their problem-solving ability. Students retrieved information from the school library and the Internet, and then in groups of three prepared and delivered a PowerPoint presentation in English. The content included elements such as, which animals lived in hot or cold places, their characteristics, habitat and diet.

The teacher shared with the students the criteria that they had to meet in the project and distributed a checklist. The checklist focused on three aspects: the content of the presentation, the quality of the PowerPoint slides and English language usage. During the process of the project, the teacher made notes to produce anecdotal records—descriptive comments about the pupils' strengths and areas that needed improvement. Issues identified by the teacher included, for example, pronunciation, written accuracy of the PowerPoint slides and presentation skills. These records helped the teacher to identify developmental trends amongst the pupils and through discussion with students provided formative feedback.

Wong (2002) suggests that in this project, assessment carried both formative and summative functions: feedback for improvement and then a final mark. Assessment became a partnership between teacher and learners, as peer-assessment was carried

out by using the checklists to facilitate pupils' comments on their classmates' performance. After each group's presentation, the teacher distributed evaluation sheets and pupils reflected on what they had done. According to Sue, the value of the peer assessment for students was in developing strategic understanding of their work and enhancing self-monitoring and reflection.

In her paper (Wong, 2002), Sue discusses some of the challenges in this approach to teaching, learning and assessment, and how there are tensions between it and more traditional methods commonly used in Hong Kong schools. In her own words, she states:

> I felt the teacher's role in the classroom changed because I am only a facilitator under the theory of constructivism. My colleagues worry that this type of classroom environment may be misinterpreted by others, who see a constructivist teacher as not in control or not working hard. (p. 9)

This quotation reveals some of the challenges involved in the transition from a more teacher-controlled style to a more learner-oriented one. There are associated issues for assessment (teacher assessment versus peer assessment, assessing process *and* product or only the latter).

As the learning involved group work, Sue reflected on whether all students in a group should be awarded the same mark or whether individual students' contributions to the group should be differentiated. She also reported that students worried about the quality of their own objectivity in assessing other pupils' work (Wong, 2002). These points are illustrative of tensions between measurement-oriented and learning-oriented aspects of assessment i.e. previous approaches to assessment in Hong Kong and those emphasized by the AfL reform. More positively, the teacher appreciated the value of self-assessment, as she saw it promoting the kind of self-regulation, central to learning. For example, one pupil asked for a second opportunity to do her presentation, having carried out her own self-assessment of her performance. This underlies another potential benefit of involving pupils in the assessment process, its impact on their motivation; whilst negative teacher feedback may harm the ego, a critical self-assessment in this case spurred the pupil to want to do better.

This example contains some of the assessment elements of the current Hong Kong educational reform, for example, goals of learning shared through prior identification of criteria; formative feedback to support pupil learning; and collaborative assessment through peer and self-assessment. From visiting the school and interviewing staff, I concluded that the project carried out by Wong was regarded as exceptional and was not being reproduced throughout the school. In addition, parents were reported as having reservations about more collaborative forms of assessment, as it was in conflict with their traditional view of assessment as something done exclusively by the teacher (Wong, 2002). This brought some pressure to bear on the teacher who was faced with a heavy workload, was carrying out progressive practices that made her vulnerable to criticism, and was risking a degree of isolation from her peers.

Peer assessment case

The second example relates to work in peer assessment done by Winnie Lue, as presented in Carless and Lue (2001). Having learnt about peer assessment in a seminar and as part of her higher degree studies, Winnie was curious about whether it could be carried out in the primary classroom. In collaboration with me, she carried out a small-scale action research project with her primary 5 English class (Year 5, pupils aged 10–11 years old). Her objectives were firstly through peer assessment to promote learner independence and enhanced learning outcomes; and secondly to improve her teaching through experimentation and reflection.

The teacher's focus was mainly on improving the grammatical accuracy of the pupils' writing. At the beginning of the action research cycle, the teacher showed the whole class some samples of writing containing mistakes and taught them how to identify the errors. This was a preparation for later stages, whereby pupils carried out peer assessment independently of the teacher. At that stage, pieces of writing were often proof-read more than once, so that writing became a process of improvement and re-drafting. Sometimes when a pupil's work was selected to be shared with the whole class, classmates reflected on both the language use and the content of the writing.

The teacher describes the peer assessment aspects of the action research as follows (Carless & Lue, 2001):

> Pupils became accustomed to carrying out peer assessment. It became established that assessment is not only the role of the teacher and the pupils found that their role in the assessment process is more active than before. They did not mind being assessed by their peers. It seemed that reflecting their opinions became an integral part of the lessons and mistakes were identified more quickly than before. (p. 7)

With respect to developing new understandings of her own teaching, Lue reflected as follows:

> I also found that I can understand their learning more. Sometimes by listening to their explanations of some mistakes, I knew better their way of thinking and whether they were on the right track. Furthermore, from students' performance of peer assessment, I could evaluate the effectiveness of my teaching and identify new teaching strategies to suit my students. (p. 9)

Classroom observations were carried out by myself and small groups of pre-service trainee teachers. Our observations led us to conclude that the peer assessment was having a positive impact on pupils' learning. Pupil participation in lessons was high and peer assessment encouraged them to interact with each other rather than just with the teacher. It was noticeable that pupils were becoming sensitive to grammatical errors and how to correct them.

Some challenges were noted by the observers. The peer assessment mainly focused on correcting grammar points rather than feedback on the content of the writing. This might carry a negative connotation in that peer assessment might become an exercise of pointing out other pupils' errors. The positive atmosphere in the class seemed largely to avoid this scenario, but over a longer period of time, there was a danger that

the novelty of the peer assessment processes might wear off. Another challenge was that peer assessment was quite time-consuming, some teachers in the Hong Kong context might find this off-putting, particularly when 'completing the syllabus or text-book' has been viewed as a high priority (Adamson & Morris, 1998).

Winnie adopted successful strategies in heading off opposition from parents to her learning and assessment techniques. She eagerly sought opportunities to explain to them what she was doing and why, and particularly would speak to those parents who collected children at the end of the school day. These dialogues largely buffered her from criticism in that parents were generally won over by her enthusiasm, sincerity and professionalism, even when her methods were different from their expectations of traditional schooling.

In this case, the main element of the educational reform was the collaborative assessment through peer assessment. The initiative to carry this out was personal to the teacher and was tolerated, but not encouraged, by the school principal or other colleagues. The sole encouragement or support came from outside the school in terms of the collaboration with myself and my trainee teachers. As Winnie stated, 'I think if more teachers are involved it would be better, it can be quite lonely doing things on your own'. Faced with a heavy workload, risk of burn-out, lack of appreciation[6] and understanding of her work, the teacher left the school shortly after the completion of her action research project.

Implications of cases

I have discussed two illustrations of AfL implementation. One of the reasons for the pockets of success described above is that the 'innovative approaches' made sense to the teachers and shared links with their training and beliefs. Changes in attitude seemed gradually to occur as teachers experimented with theories from their further studies and saw how they could be implemented in the classroom. A further facilitating factor in the implementation was my collaboration with the teachers. As with all innovations, teachers need support and encouragement when implementing something new and my presence provided some positive feedback that was less likely to be forthcoming from colleagues in the school with traditional views of learning and assessment. The teachers seemed to go through the stages of developing an understanding of AfL, reconciling this with their prior beliefs and practices, experimenting with and reflecting on the new assessment practices.

The two teachers both noted difficulties in changing assessment practices which had been carried out in schools for many years; this difficulty was at both an individual teacher level and a system-wide one in that structural changes discussed earlier had not filtered down to the classroom level in a way that impacted significantly on teacher practice. The teachers pointed that a principal focus of school assessment practices was on fairness, so collaborative forms of assessment were not widely used nor deemed to facilitate accurate assessments of pupil performance. School colleagues considered peer assessment to be worthy in theory but somewhat 'high minded', time-consuming and difficult for pupils to carry out successfully. Formative

approaches to assessment had a poor reputation amongst teachers due to their nega-
tive experiences under TOC. Parents were also reported to be generally unwilling to
tolerate alternative forms of assessment, so the teachers had to work hard to convince
parents of the worth of their practices. Overall, Sue and Winnie experienced a lack of
empathy or support from principals or colleagues and a lack of encouragement for
their innovative work.

These two outlier teachers were able to implement some of the AfL principles of
the Learning to Learn reform. What prospects are there for implementation on a
wider scale? In sum, there are reasons to be both negative and positive about the
ongoing prospects for AfL in Hong Kong. The negative factors include:

- The dominance of competitive examinations, allied to a simplistic view of assess-
  ment as testing amongst many stakeholders;
- An associated lack of deep understanding of assessment issues (cf. Stiggins, 2001)
  by principals, teachers and parents;
- Lack of time, capacity and the will to engage with myriad issues in teaching,
  schooling and educational reform in which AfL is just one strand.

From a more positive angle:

- The Learning to Learn reform seeks to align assessment with teaching and
  learning;
- There are structural changes to support AfL;
- There are pockets of good practice as discussed above.

Changing assessment practice and professional development

I would now like to return to the Clarke and Hollingsworth (2002) conceptual frame
for this paper. From their external domain, the general source of stimulus for the
teachers was the AfL aspects of the TOC and Learning to Learn reforms; a more
specific stimulus for Sue was an M. Ed assignment on learning and assessment, and
for Winnie a small-scale action research project. From the personal domain, the high
degree of congruence with their knowledge and beliefs was a facilitating factor in the
implementation. The domain of practice was the professional experimentation in the
Cyber Zoo project for Sue and the peer assessment for Winnie. The main salient
outcomes (domain of consequence) were for Sue the use of checklists to promote peer
assessment and the positive self-assessment processes; and for Winnie the finding that
peer assessment was feasible and that through it pupils could involve themselves more
actively in assessment.

What seem to be some of the necessary conditions for teacher implementation of
AfL reform in Hong Kong and elsewhere? Based on the current discussion and a
reading of the wider literature, I would like to propose for further investigation a
tentative exploratory framework of factors impacting on the promotion of AfL for
schools (Figure 1). The framework uses three levels, the personal domain from the
Clarke & Hollingsworth model (level 1), then I divide their Change Environment into
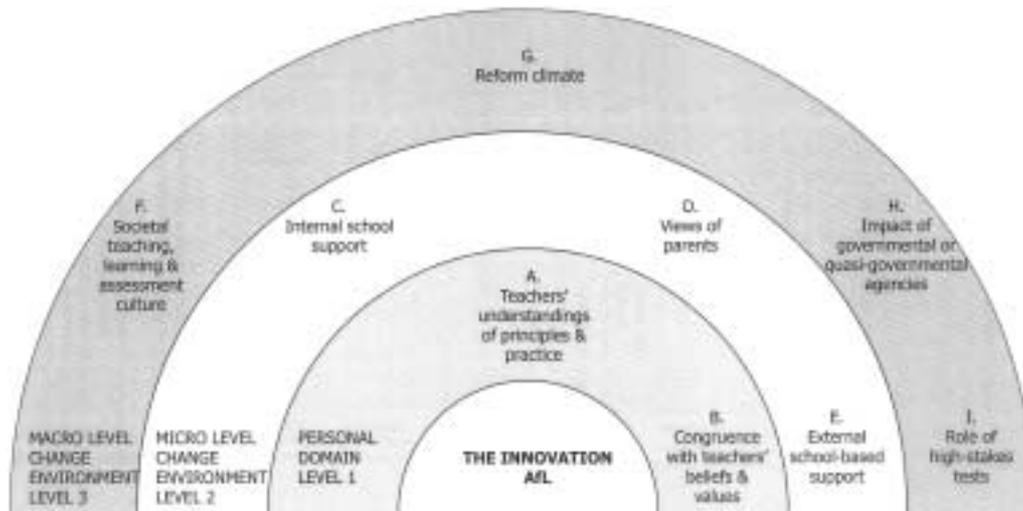
Figure 1.   Exploratory framework of factors impacting on the implementation of AfL

micro-level (local school forces, level 2) and the macro-level (wider external forces, level 3). The numbering of the levels does not represent degree of importance, merely the degree of proximity to the teacher's personal world. Within these three levels, a cluster of nine factors is proposed, labelled A–I for convenience of exposition. The impact on implementation involves a complex interplay of these, and undoubtedly other, factors.

In level 1, factors A and B derive from Clarke and Hollingsworth's (2002) personal domain of teacher knowledge and beliefs. Factor A suggests that teachers need to have sufficient understanding of the principles and practice of Afl in order to be able to implement it. Factor B requires some degree of congruence of AfL with their own values and beliefs, also seen to be a factor by Black *et al.* (2003). Factors C to E are at the micro-level (level 2) of the Change Environment, the former representing the extent of internal school support, issues such as, school culture, classroom conditions, resourcing and the degree of encouragement or recognition for implementing teachers. Factor D takes into account the views of parents, an issue impacting on schooling both in Hong Kong and elsewhere (e.g. Crozier, 2000). Factor E denotes the degree of external support from academics, teacher educators or curriculum developers, which has been seen to be a facilitating factor in the implementation of Afl (Clarke & McCallum, 2001; Torrance & Pryor, 2001). Factors F–I are at the macro level (level 3) of the Change Environment; as Leung (2004) points out the development of formative assessment requires infrastructural work to support policy change. Factor F is the existing societal teaching, learning and assessment culture within which AfL seeks to embed itself. Factor G is the wider reform climate, including the status of reforms and the extent to which factors such as overload, continuity or discontinuity are present (cf. Carless, 2004). Factor H is the impact of relevant government or quasi-governmental agencies, for example, in the UK context this

could be the Qualifications and Curriculum Authority (QCA) or the exam boards, in Hong Kong, the HKEAA or CDI. Factor I represents the role of high stakes tests in encouraging or more likely discouraging AfL (cf. Shepard, 2000; Pong & Chow, 2002). The framework is exploratory and requires further investigation, but if found to be trustworthy may also carry implications for other types of educational change.

Conclusion

In summary, this paper has examined the facilitating and inhibiting factors in the implementation of AfL in Hong Kong and related them to Clarke and Hollingsworth's (2002) model of professional development. As a final point, change takes longer than politicians and administrators would like it to do. All deep educational changes are challenging and assessment cultures seem to be particularly impervious to transformation. This may be exacerbated by reform overload or previous attempts to reform assessment practices that have been unsuccessful. Realistically, a more definitive verdict on AfL in Hong Kong is unlikely to be available until reforms have had longer to take root or fade out, as the case may be.

Notes

1. An emphasis on testing is, of course, not exclusive to the Asian region.
2. Hong Kong government documents do not distinguish formative assessment from AfL and they are used to refer to similar processes. The term formative assessment was used in the 'old' Target-Oriented Curriculum reform, whilst in the new Learning to Learn reform, AfL is used.
3. According to Education and Manpower Bureau (2002), at the primary level, 52.4% of teachers are non-degree holders and 9% are untrained; many subjects are taught by teachers not trained in that particular subject: 41% of English teachers, 59% of Art and Craft teachers and 37% of Music teachers are non-subject trained.
4. Space prevents me from citing all the recommendations of the AfL reform. Instead, I cite those components that seem to me central and most relevant to the examples of primary practice discussed later in the paper.
5. The School Management Initiative (SMI) became School-Based Management (SBM); Targets and Target-Related Assessment (TTRA) metamorphosed to Target-Oriented Curriculum (TOC); Benchmarks for language teachers became Language Proficiency Assessment for Teachers (LPAT). In each case, the name changed but the substance remained the same, whilst the impact on teachers was often confusion or cynicism.
6. A study by Yung (2002) quotes one Hong Kong teacher as follows: 'People in this profession do not like their peers to work hard and to have ambitions. Otherwise, you will easily catch the others' attention. The principal and your colleagues will then look at you with a suspicious eye' (p. 107).

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