

I. Background and Needs for this Project

In the past decade, assessment of student achievement has been receiving the attention of educators, teachers, parents, as well as the policy makers within the education system. It is highlighted that assessment should be an integral part in the teaching and learning process, and that assessment practices need to reflect changes based on the latest understandings of learning theories, new curricula that are being developed, new knowledge and skills that are necessary for the 21st century and the accountability required by the education system and the government.

Current learning theories emphasize the importance of learning with understanding (Bransford et al, 2000), which means that curriculum and teaching approaches should be provided for in-depth study and allow for firm foundation of knowledge and conceptual development. Children are expected to develop the abilities to recognize and use meaningful patterns of information during the learning process. Dietel, Herman & Knuth (1991) put forward the concept of meaningful learning that it is reflective, constructive and self-regulated in nature from today's cognitive perspective. Children are expected to acquire knowledge not just from receiving information passively but to have interpreted it and related it to other knowledge. Meaningful learning refers to how to perform, when to perform and how to adapt that performance to new situation. Moreover, it is important for children to learn how and why to organize, structure, and use the information in context to solve complex problems.

The research done by Black & Wiliam (1999) indicated that assessment can improve learning if they have the following five key features:

1. The provision of effective feedback to pupils;
2. The active involvement of pupils in their own learning;
3. Adjusting teaching to take account of the results of assessment;
4. A recognition of the profound influence assessment has on the motivation and self-esteem of pupils, both of which are crucial influences on learning; and
5. The need for pupils to be able to assess themselves and understand how to improve.

AfL has developed through a fusion of research and classroom practice. Black and Wiliam (1998a) have shown that AfL is one of the powerful ways of improving learning and raising standards. From their research on assessment and classroom learning, funded by The Nuffield Foundation in 1999, they synthesized evidence from over 250 studies linking assessment and learning. The outcome was clear and incontrovertible that initiatives designed to enhance effectiveness of the way assessment is used in the classroom to promote learning can raise pupil achievement. AfL occurs when teachers use inferences about progress to inform their teaching. It integrates assessment into the learning and teaching process and establishes the teacher's roles in assessment. Through AfL teachers ascertain students' knowledge, perceptions and misconceptions and use this evidence to inform curriculum planning and teaching practice in order to support students to operate at the edge of their competence. Teachers use a range of assessment tools and teaching approaches integrating assessment during

learning and teaching process. Assessment goals are explicit and students are assisted to understand clearly what they are trying to learn and what is expected of them. Assessment is seen positively as supportive of student learning and assisting students to close the gap between their current achievement and the expected goals. It recognizes the influence that assessment has on the motivation and self-esteem of students and provides them with constructive feedback. It also encourages the active involvement of students in their learning and depends on teachers' diagnostic skills to make it work (Earl, 2003). As Stiggins (2002:758-765) comments that AfL plays out in the classroom, could help students keep learning and remain confident if they keep trying to learn. Stiggins also indicates that AfL can contribute to the development of effective schools for it serves to help students learn more, in addition to provide evidence of achievement.

AfL action research projects (Black et al, 2003) have found that children can become more autonomous learners as a result of active involvement in their own learning. Students learn best and benefit from assessment when:

1. Learning intentions are shared between learners and teachers;
2. Feedback is given on successes as well as areas to improve;
3. Opportunities are provided to read and respond to feedback; and
4. Time for reflection and evaluation is provided, to consider what and how they learn.

The active involvement of children is crucial to the success of formative assessment. Black and Wiliam. (1999) proposed from the research findings that assessment can promote learning in the following ways:

1. it is embedded in a view of teaching and learning of which it is an essential parts ;
2. it involves sharing learning goals with pupils;
3. it aims to help pupils to know and to recognize the standards they are aiming for;
4. it involves pupils in self-assessment;
5. it provides feedbacks which leads to pupils recognizing their steps and how to take them;
6. it is underpinned confidence that every student can improve; and
7. it involves both teacher and pupils reviewing and reflecting on assessment data.

Thus, the use of formative assessments in AfL can promote one's abilities to monitor his/her own learning.

The concept of developmental appropriateness has been extending to the issues related to curriculum planning and assessment of young children for more than a decade. Implementing AfL in early childhood setting can effectively help young children to construct knowledge through day-to-day learning process; to build up self-esteem; and to acquire skills and knowledge that promote self-regulated learning in the future. As Katz (1997) indicated that appropriate assessment of individual children may serve one of the following purposes:

1. To determine progress on significant developmental achievements;
2. To make placement or promotion decisions;
3. To diagnose learning and teaching problems;
4. To help in instruction and curriculum decisions;
5. To serve as a basis for reporting to parents; and



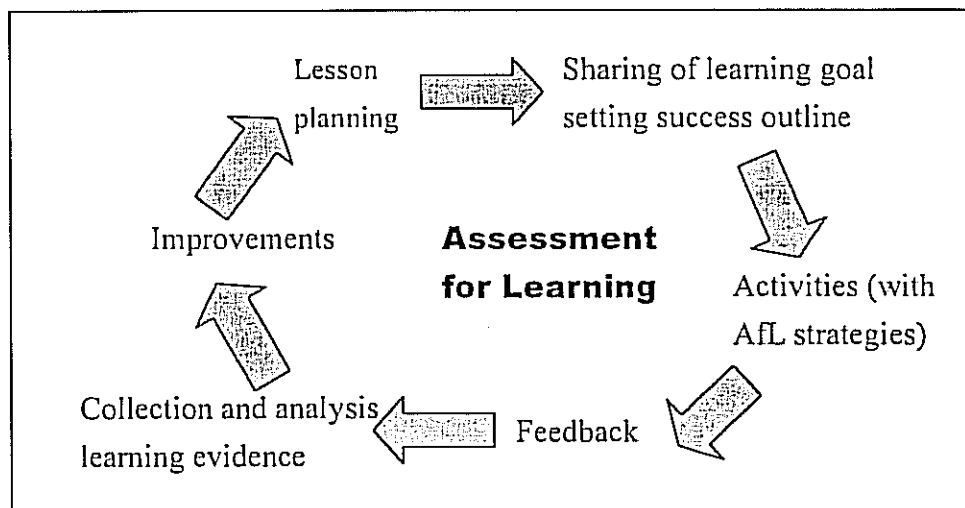
6. To assist a child with assessing his/her progress.

The National Association for the Education of Young Children (NAEYC) (2003) and the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) (2003) are the two predominant organizations which promote quality early childhood education in the United States. They put forward several indicators of effective assessment practices for early childhood education in the position statement which matches well with the principles of AfL. These include:

1. What is assessed is developmentally and educationally significant;
2. Assessment evidence is gathered from realistic settings and situations that reflect children's actual performance;
3. Assessment use multiple sources of evidence gathered over time; and
4. Assessment evidence is used to understand and improve learning.

One of the important qualities of assessment for early childhood education is that staff and families should be acknowledged of about the assessment information (NAEYC and NAEYC/SDE position statement, 2003). A research was conducted by Victoria Government Department of Human Services, Australia in 1997 for investigating the impacts on the nature of the assessment practices after introducing the two assessment documents: the Preschool Quality Assessment Checklist (PQAC) and the Curriculum and Standards Framework (CSF). From the research findings, it was found that most parents wanted to be involved in assessment process (Victorian Government Department of Human Services, 1996). Most of them were satisfied of being informed of their children's assessment information. The involvement of parents in assessment process enables parents to make valuable contribution to assess children's needs, and participate in the planning of a suitable programs (Pugh, 1985). Since parents see and interact with their children in many situations, and they possess a great deal of knowledge about the children, to involve them into the assessment process allow teachers to gain greater insights into the children (Horowitz, 1995). Teachers are suggested to create structures that invite dialogue with the parents, on the reason that, they are more likely to be involved in their children's education if they can exercise real decision making that directly affect the future of their children (Apple & Beane, 1995).

The elements of AfL can be integrated and shown in the diagram below:



The Curriculum Development Council of Hong Kong published a report entitled “Learning to Learn: The Way Forward in Curriculum Development (2000)”, which set out the general directions for curriculum development in Hong Kong for the following 10 years. The Report recommended that there should be a change in assessment practices and schools should put more emphasis on AfL, 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 (EDB, 2007a). Moreover, “Basic Education Curriculum Guide—Building on Strength”, published by Curriculum Development Institute, Hong Kong Education and Manpower Bureau (2002) further highlights the main ideas and principles underlying assessment. Suggestions were made as to how schools should design and develop a whole-school policy on AfL to promote learning for students. However, there is evidence from reports of school inspections that the use of assessment to help pupils learn is one of the weakest aspects of the practice in classroom across the kindergarten and primary levels. Quality Assurance Inspection Annual Report 2005/2006 (EDB, 2007b) drawn on the school inspections of primary schools, secondary school and special schools during that period stated that some schools had not yet set up “assessment for learning” in alignment with curriculum reform. Whereas some of the schools had not conducted further in-depth analysis of the strengths and areas for improvement in learning and teaching in order to formulate concrete follow-up plans and to inform curriculum planning and teaching (2007:23). It was found that teacher-centered approach was still predominant and children in half of the schools were learning passively. They relied mainly on teachers’ unidirectional instruction and seldom took the initiative to ask questions or express their views to enhance their understanding of the topic or explore further. In general, students’ learning strategies and independent learning abilities should be further strengthened (2007:21). The Report recommended that teachers should give more intensive guidance and support in class and provide more specific feedback to help student to improve. Furthermore, the schools should also make better use of students’ assessment data as the basis for revising teaching programs, as well as adjusting teaching strategies and procedures to foster student learning (2007:46). Apart from the findings presented in the Inspection Reports, it is common to find that primary schools mistreat Basic Competence Assessment (BCA) as one of the academic assessment. They often provide supplementary lessons to drill pupils as preparation, aiming at getting higher passing rates. Such treatment is totally against the spirit of BCA, which is originated for realizing AfL.

Quality Assurance Inspection Annual Report—Kindergarten 2004/2005 (EMB, 2006) indicates that only 45% of the kindergartens being inspected adopted proper formative and summative assessments to evaluate children’s learning experience in various aspects. Only 25% of teachers made observation on children’s performance in class activities, recorded their learning progress, organized and analyzed their works, and compiled learning records or portfolios for children. Summative assessment was made on children’s development on various developmental aspects. For example, some schools relied on tests and examinations which require rote-memorization of knowledge to assess children’s abilities. In addition, a considerable number of schools did not demonstrate a full understanding of the concept of continuous assessment of children development. Children’s assessment information was not fully utilized to review the effectiveness of teaching (2006:4). The Report provides recommendation concerning the assessment mode on children’s learning experiences, which suggests that teachers should equip themselves with the skills in developing formative



assessment and make meaningful interpretation from the collected information to identify areas for improvement. The school administrators should provide teachers with ample opportunities and supports for the implementation of AfL. Information collected from observation and scaffolding of children's learning can serve as feedbacks for the construction and consolidation of knowledge, thus guiding children to acquire the abilities for self-regulated learning, and ultimately helping them to become self-directed learners.

Conclusively, the weaknesses in current assessment practices have thus been clearly spelled out by Government's inspection exercises. By contrasting AfL which is, at present, being promoted by Education Bureau, the current assessment practices that are being implemented by school teachers in local classrooms are simply adding procedures or tests to existing work and is separated from teaching, or on-going assessment that involves only marking and feeding back grades or marks to pupils. Such assessment has increasingly been used to sum up learning, that is, it has a summative rather than a formative purpose.

Teachers must be involved in gathering information about pupils' learning and encouraging pupils to review their work critically and constructively. The methods for gaining such information include observation of pupils; questioning pupils using open questions; setting tasks in a way which requires pupils to use certain skills or apply ideas; asking pupils to communicate their thinking through drawings, artifacts, actions, role play, concept mapping, as well as writing; and discussing words and how they are being used. Moreover, teachers must be able to use the information to make decision about the next steps in learning and action in helping pupils acquire the skills and strategies to take those steps. They should provide feedbacks for further improvement to pupils through involving pupils in the assessment process. It is obvious that assessment for learning depends on what teachers do in classrooms and how they see their role.

The evidence from the inspection reports makes it clear that changes in classroom practices are needed in many local classrooms. It is essential to help those teachers develop a positive and constructive view towards assessment, which gears to the principles of AfL. However, teachers can only be expected to make these changes if they are encouraged to do so within a supportive environment. The School Development and Evaluation Team (SDET) (<http://www.fed.cuhk.edu.hk/sdet/>) of Hong Kong Centre for the Development of Educational Leadership, CUHK has profound experiences in assisting schools to inculcate a quality culture and to strive for sustainability. The team has developed several projects that stress not only on the importance of school evaluation, but also that of school-based development. Our aim is to enable schools to gain in-depth understanding about their performance in areas from management and organization to school culture, teaching and learning, and students' and parents' perception of their schools. Schools can make appropriate measures for development in accordance with their strengths and weaknesses as revealed in the evaluation. In order to catering for the increasing demands from schools for the enhancement of students' ability to learn, the SDET launched more projects during the year of 2006 – 2007 that emphasized the improvement of the effectiveness of teaching and learning. The project titled "Meta-cognition in Learning and Teaching - Supporting Students' Learning Needs," sponsored by the Quality Education Fund, has moved in high gear began from last academic year. The response from most of the participating schools is encouraging. Principals and teachers indicated that the project could help in nurturing a quality culture of improving teaching and learning. What we are

offering in this project is not a radical alternative to current practice but some pragmatic suggestions for changes in emphasis in current assessment policies. As overseas research indicates that AfL will contribute to the enhancement of education standard, it is proposed that, by introducing specific strategies and approaches that can strengthen classroom practices, this project will benefit the participating schools in improving the quality of classroom assessment when the importance of AfL is asserted.

II. *Aims and Objectives*

1. To help schools understand the concept and principles of AfL and to acquire the skills and techniques for the planning and implementation of AfL;
2. To help schools institutionalize a school-based AfL curriculum/assessment framework in daily practices;
3. To develop a school-based assessment mechanism (with the alignment of summative assessment and formative assessment) and a variety of measurement tools appropriate for conducting AfL;
4. To help teachers acquire knowledge and skills for the development of student learning portfolio and make meaningful use of assessment information to feedback on curriculum planning, as well as on children's learning;
5. To promote self-regulated learning of children through implementation of AfL;
6. To disseminate good practices provided by practicing schools in implementing AfL; and
7. To help parents understand the concept and principals of AfL.

III. *Targets and beneficiaries*

A sample of 10 kindergartens and 10 primary schools will be invited to join in this project. The project will benefit the participating schools in the following ways:

1. A culture of "an ongoing process that stresses gathering, analyzing and reflecting on evidence to make informed and consistent judgments to improve future student learning" will be cultivated in the schools.
2. School administrators' and teachers' knowledge and skills for implementing AfL will be enhanced through a series of training course and workshops well designed for them. Thus, their professional competence, confidence and performance will be promoted.
3. Assessment will become an integral component of the teaching program and teachers will be encouraged to develop and incorporate formative assessment strategies in their teaching process.
4. The ultimate purpose of this project is to promote children's ability for self-assessment and self-regulated leaning when schools have successfully established the new assessment culture.
5. Schools will be empowered to establish a valid, reliable and consistent school-based assessment system/mechanism with a variety of measurement tools appropriate for collecting evidence to portray an all rounded development of the children.
6. Teachers will develop and experiment strategies and skills in documenting children's learning evidence for everyday teaching and learning process, thus constructing a more structured and systematic student learning portfolio. They will also develop diagnostic skills that enable them to make meaningful interpretation and feedbacks from the collected evidence.
7. Exemplars of school-based programs integrated with elements of AfL will be developed and disseminate as good practices.



8. To create an interface between the participating kindergartens and primary schools to facilitate the transfer of professional knowledge and the sharing of good practices.

The endeavor by these 20 schools and the project team will contribute to part of the overall improvement in educational quality in Hong Kong. The number of participants benefit from the project is presented as follow:

| Number of participating schools | | Number of people involved | | | |
|---------------------------------|-----------------|---------------------------|---------------------------------|-----------------------------|--------------------------------|
| Kindergartens | Primary schools | Kindergartens | | Primary schools (P.1 – P.3) | |
| | | Teacher | Pupils | Teacher | Pupils |
| | | 2520 pupils ÷15 | 9 classes x 28 children X 10 | 35 X10 | 12 classes X 32 pupils X 10 |
| 10 | 10 | 168 | 2520 | 350 | 3840 |

Note: 1. The average number of class per kindergarten is counted as 9; the average number of pupil per class is counted as 28.

2. The average number of class per primary school is counted as 24; and the average class size is 32 pupils.

IV. Activities to be organized

1. Setting up a School-based Assessment Development Committee

Each of the participating school will set up a School-based Assessment Development Committee (SBADC) (with maximum 5 persons) to facilitate the establishment of a school-based assessment mechanism with the infusion of AfL elements into daily teaching practices. The committee members include the school principal, PSMCD (for primary schools)/ Curriculum Leader (for kindergartens), the senior teacher(s) responsible for school curriculum development/student assessment, subject panel chairmen and/or a group of subject teachers. The major duties of the SBADC will be:

- Attending training programs organized by the project team;
- Identifying curriculum areas that need improvement, i.e. the key curriculum program(s) that need to be infused with AfL elements;
- Leading the teachers involved in the key curriculum program(s) to plan, collate, implement and evaluate the teaching and learning activities;
- Experimentation of the key program(s) by incorporating elements of AfL;
- Releasing and supporting teachers to participate in lesson-planning meetings, lesson observations, experience sharing sessions organized by the project team;
- Assisting project evaluation by collecting/providing appropriate data for consideration and reference; and
- Attending class observations and post-observation discussion meetings organized by the sister school.

A participatory approach will be adopted when conducting the exercise of AfL. The SBADC and the teachers involved in the key programs should be responsible to disseminate experiences and outcomes of implementing AfL to the stakeholders of the school, including administrators, teachers, parents and children.

Participating kindergartens and primary schools will be paired up as sister schools so as to facilitate professional knowledge transfer through class observations, experience sharing sessions, peer reflection and sharing of resources.

It should be noted that the PSMCD (for primary schools) and the Curriculum Leader (for Kindergartens) should play an active and crucial role in the project. Their responsibilities include:

- (a) To assist the school principal to lead and coordinate the planning of school-based AfL curriculum/assessment framework according to the recommendation provided by the project team;
- (b) To support the school principal in planning and coordinating policy and practices that facilitates the implementation of AfL;
- (c) To lead the core group members and teachers involved in the project in improving learning and teaching strategies and assessment practices through professional development programs (i.e. training sessions, workshops and class observations); and to develop school-based teaching and learning resources; and
- (d) To promote a professional exchange culture within school and establish links with other participating schools for sharing of experiences gained from the implementation of AfL project.

2. A 21-hour Training Program for SBADC

A staff development program will be provided for the members of SBADC of the 20 schools. The program which consists of six modules covering a wide range of topic, assisting the participants to practise AfL, to formulate approaches that facilitate assessment process, to develop appropriate assessment tools and to establish a student learning portfolio system. The modules of the program are listed as below.

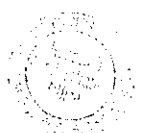
Module 1: Principles of AfL and Its Implications on Learning and Teaching

This module provides an introduction to the principles of Assessment for Learning (AfL) and its implications on learning and teaching. The module explores the importance of the AfL approach in schooling and its implications on the assessment culture in Hong Kong. Topics of discussion include: (i) the value of assessment, (ii) the problem of existing assessment culture, (iii) the importance of AfL, (iv) definition of AfL, (v) characteristics of AfL, (vi) the ten principles of AfL to guide classroom practice. Through different learning activities, teachers will develop a conceptual framework of AfL in the school context.

Module 2: AfL Teaching Strategies and Skills

This module is designed to help teachers to identify the key features of formative assessment and its relationship to AfL. Teachers will be able to explore the purposes, functions and usage of various teaching strategies (e.g. high-order questioning techniques, meta-cognitive thinking strategies, etc.) that could promote AfL. Lesson observation (showing of video clips) and post observation discussion will be conducted during the training program. These activities facilitate teachers to identify the essential for good AfL and to examine critically elements for good planning and the teaching skills for making AfL a productive part of lessons.

Module 3: Effective Questioning Techniques



Questioning is one of the most important teaching strategies in an effective classroom. This module is designed to recapitulate teachers with theoretical and practical aspects of effective models and techniques of questioning in enhancing learning. The module includes: (i) importance and functions of questioning (ii) different models of asking questions, (iii) scaffolding and stages in giving questions to students, (iv) self-questioning techniques for students and (v) the uses of feedback after questioning.

Module 4: Giving Quality Feedbacks

Quality feedback is one of the essential elements in AfL. This module is designed to familiarize teachers with theoretical and practical aspects of giving quality feedback in the classroom setting. The module includes: (i) evaluative feedback and descriptive feedback, (ii) the importance of quality feedback in improving learning, (iii) characteristics of quality feedback, and (iv) strategies which improve the quality of feedback in the classrooms. Through different learning activities, teachers will reflect on teacher-student interactions in their classrooms and improve their skills in giving feedback to their students in order to support the AfL culture being implemented in their schools.

Module 5: Self and Peer Assessment in the AfL Classroom

Self and peer assessment is the two important elements in an AfL classroom. This module introduces the principles of self and peer assessment and their implications for motivation in learning. The module will also examine the practice of these two approaches in the assessment culture in Hong Kong. Topics for discussion include: (i) definition, importance and principles of self and peer assessments; (ii) advantages and disadvantages of self and peer assessment in the classroom; (iii) strategies to engage students in self and peer assessment; and (iv) designing rubrics for self and peer assessment.

Module 6: Development of Assessment Portfolios

This module aims at providing teachers with practical suggestions for creating portfolios so as to meet the unique needs and purposes of AfL classrooms. It includes knowledge and principles about designing portfolios, essential steps to make portfolios work, actual cases of portfolios in action, how to use portfolio to assess both teacher and pupil performances, and the exploration of practical issues of portfolio development and implementation. Teachers will be able to bridge between the knowledge and principles of using portfolio and the application of portfolios during the implementation of AfL.

Remarks:

- (i) Two concurrent programs will be run for members of SBADCs, one for the group of kindergartens and the other group of primary schools.
- (ii) Modules 1 to 3 will be conducted in the first year of the project, whereas Modules 4 to 6 in the second year.
- (iii) The program aims at enabling school principals and teachers to develop and initiate changes in teaching and learning and the assessment practices within their own schools after attending the program.
- (iv) Activities in form of workshops will be designed to facilitate the principals and teachers to reflect on the concepts and knowledge introduced.

- (v) There will be a training package for each module; that is, totally six packages for the program. The training packages will be produced for AfL purposes and their contents will be adaptable with minimal preparation or background training.
3. **Two Half-day Training Workshops (School-based teacher professional development workshops)**
- (i) The first half-day training workshop in Year 1 aims at facilitating teachers' understanding of the concept of AfL and the principles of the implementation of AfL in daily practices.
 - (ii) The second half-day training workshop in Year 2 aims at:
 - (a) Reviewing the effectiveness of 1st Year key program(s);
 - (b) Sharing successful experiences in implementing AfL among teachers in the school for consolidating their understanding of the concept and principles of AfL ; and
 - (c) Promoting the concept of student portfolio and the skills in the establishment of school-based assessment portfolio framework.
4. **Two Half-day Practicum Workshops for Teachers Involved in the Development of Key Programs**
- (i) The first half-day practicum workshop in Year 1 aims at:
 - (a) Working collaboratively with SBADC members and the teachers involved in the development of the key program(s) to design and incorporate appropriate assessment tools in the key program(s), which includes:
 - (1) Conducting a self-evaluation to identify areas on which to concentrate;
 - (2) Selecting a key program(s) for implementing AfL;
 - (3) Facilitating the setting up of an AfL framework for the key program(s);
 - (4) Helping teachers incorporate AfL practices in the teaching and learning process; and
 - (5) Enabling teachers to put skills and strategies of AfL into practices through lesson planning process.
 - (b) Analysis of the students' learning evidences that will be collected during the implementation process of the key program(s) with the aim for eliciting feedbacks onto future curriculum planning and students' learning.
 - (c) Helping teachers incorporate AfL elements into teaching and learning process; and
 - (d) Develop an school-based AfL curriculum/assessment framework with relevant evaluation approaches and tools.
 - (ii) The second half-day practicum workshop in Year 2 aims at:
 - (a) Working collaboratively with SBADC members and the teachers involved in the Year 2 key program(s), which includes:
 - (1) Incorporating more AfL practices in the teaching and learning process;
 - (2) Putting skills and strategies of AfL into practices through lesson planning processes;
 - (3) Designing and incorporating appropriate assessment tools in the key program(s);
 - (4) Establishing a system for collecting student learning information; and
 - (5) Setting up an assessment portfolio framework.



- (b) Consultancy will be provided to schools on the overall performance of the key program(s) that has been implemented, and the effectiveness of the assessment portfolio system.
- (c) Helping teachers to incorporate AfL elements into teaching and learning process; and to develop school-based AfL curriculum/assessment framework with relevant evaluation approaches and tools. The ultimate goal of this workshop is to promote AfL further across age groups and across KLAs.
- (d) Working collaboratively with the SBADC members to organize a school-based parent seminar for disseminating successful experience and good practices gained from participating the project.

5. Two Half-day Class Observations

- (a) Peer lesson observations and post-observation meetings will be carried out with the involved teachers.
- (b) Consultancy will be provided to schools on the outcomes and effectiveness of the key program(s) that has been implemented.
- (c) SBADC members of the sister school will be invited to participate in the class observations and post-class observation meetings on a voluntary basis.

6. A Half-day Workshop for Parents (to be conducted by the schools)

To assist schools to organize a half-day workshop which aims at helping parents understand the concepts and principles of AfL; and to share experience from SBADC members and the teachers involved in the key programs for disseminating successful experience and good practices gained from participating the project.

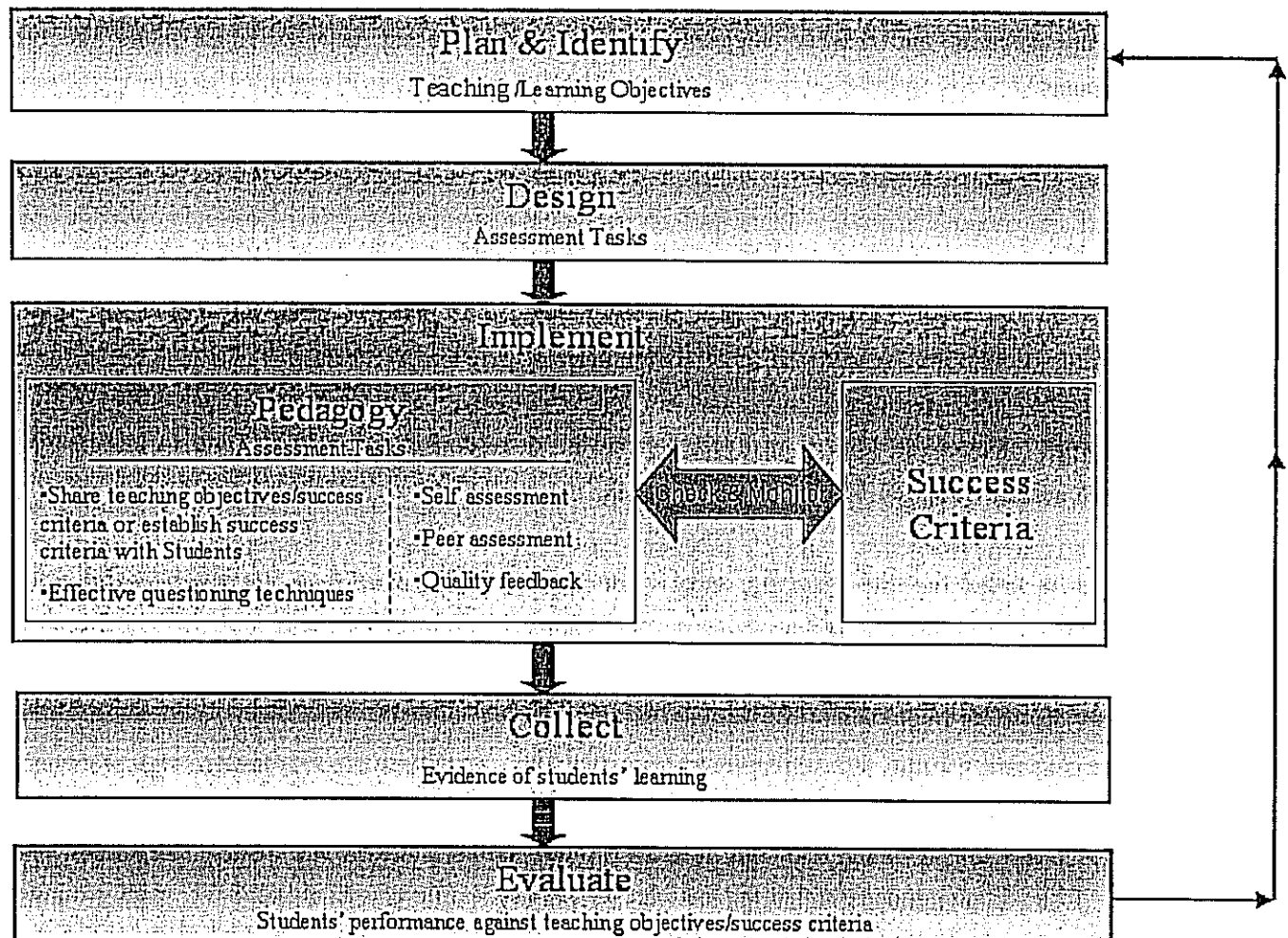
7. Development of School-based AfL Curriculum/Assessment Teaching Kits

AfL is considered to be part of the teaching and learning process. It allows teachers to work with the learners to determine what is being learnt and identify what the “next step” should be. It provides both teachers and pupils with feedback to help improve learning. Formative assessment—the frequent assessment of student progress to identify learning needs and shape teaching has become a prominent strategy in promoting assessment for learning. The key elements of formative assessment proposed by Organization of Economic, Co-operation and Development (OECD) (2005) should be:

- (a) Establishment of a classroom culture that encourages interaction and the use of assessment tools;
- (b) Establishment of learning goals, and tracking of individual student progress towards those goals;
- (c) Use of varied instruction method to meet diverse student needs;
- (d) Use of varied approaches to assessing student understanding;
- (e) Feedback on student performance and adaptation of instruction to meet identified needs; and
- (f) Active involvement of students in the learning process.

In light of the above considerations, activities in this project concern the development of a School-based AfL Curriculum/Assessment Framework–The AfL-PDICE Model (Please refer to Figure 1).

Figure 1: School-Based AfL Curriculum/Assessment Framework (The AfL-PDICE Model)



There are five stages in the AfL-PDICE Model, namely, Planning, Designing, Implementing, Collecting and Evaluating.

In the *planning* stage, teachers need to identify certain learning and teaching objectives before they design their assessment tasks or activities. In *designing* the tasks, teachers should have a clear picture about the learning objectives of the lessons and set *success criteria* around these goals.

During the *implementing* stage, teachers should share the *success criteria* of the assessment tasks with students in order to assist them to understand what they have done well and what they need to develop and thus facilitating *self and peer assessment* after the task. In order to enhance AFL, teachers are required to use *effective questioning techniques* such as high-order thinking questions to encourage students to apply, analyze, synthesize or evaluate their knowledge currently learnt and also reveal their thinking processes and

understanding so that teachers can make use of this evidence to target their teaching according to students' needs and diagnose students' strengths and weaknesses during the learning process. Also, a culture of success should be advocated with the belief that each student can make achievements by building on their previous performance. This can be achieved by the *quality feedback* given by the teachers through discussion with students about their strengths and weaknesses demonstrated in their work or performance and giving practical and feasible suggestions in order to help the latter to make plans for further improvement.

For *self and peer assessment*, it is based on the belief that encouraging students to self-reflect on their own work can enhance learning. Once students understand how to assess their current knowledge and the gaps in it, they will have a clearer idea of how they can help themselves to improve their learning. Thus, teachers should provide opportunities for their students to reflect on their own work. In addition, encouraging students to comment on their fellow classmates' work is essential in learning since they can understand both the learning objectives and the task requirement (or assessment criteria) while evaluating others' work. Moreover, looking at different answers or responses can help students to understand the alternative methods they could have used to the task.

It should be noted that the *collecting* stage is not necessarily detached from the implementing stage as teachers are often required to collect evidence of students' learning by assessing both the learning product (i.e. the learning targets and content that students are expected to achieve) and the learning processes (i.e. how they learn) through their observations in class, rating students' worksheets, reviewing students' self/peer assessment forms and conferencing with students. Finally, in the *evaluating* stage, teachers can make use of the information collected by the assessment practice to form basis in evaluating how well the learning and teaching is being done and thus informing learning and teaching in their curriculum plan in future. It should be pointed out that the materials developed should be school-based, i.e., well grounded in school context and suitable for their own needs.

V. Action plan and time-line

| Stage | Stage I | | | | | | | | | | | | Stage II | | | | | | | | | | | |
|--|---------|----|----|----|------|---|---|---|---|---|---|---|----------|----|----|----|------|---|---|---|---|---|---|---|
| Year | 2008 | | | | 2009 | | | | | | | | | | | | 2010 | | | | | | | |
| Month | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 1. Setting-up of SBADCs and preparation | | | | | | | | | | | | | | | | | | | | | | | | |
| 2. Training sessions for SBADCs (Module 1-3) | | | | | | | | | | | | | | | | | | | | | | | | |
| 3a. The first half-day training workshop in Year 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 3b. The first half-day practicum workshop in Year 1 | | | | | | | | | | | | | | | | | | | | | | | | |
| 3c. The first half-day class observation | | | | | | | | | | | | | | | | | | | | | | | | |
| 4. Development of school-based Curriculum/Assessment Teaching Kit (1) | | | | | | | | | | | | | | | | | | | | | | | | |
| 5. Training sessions for SBADCs (Module 4-6) | | | | | | | | | | | | | | | | | | | | | | | | |
| 6a. The second half-day training workshop in Year 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6b. The second half-day practicum workshop in Year 2 | | | | | | | | | | | | | | | | | | | | | | | | |
| 6c. The second half-day class observation | | | | | | | | | | | | | | | | | | | | | | | | |
| 7. Development of school-based Curriculum/Assessment Teaching Kit (2) | | | | | | | | | | | | | | | | | | | | | | | | |
| 8. The half-day workshop for parents | | | | | | | | | | | | | | | | | | | | | | | | |
| 9. Formulation of school development plans | | | | | | | | | | | | | | | | | | | | | | | | |
| 10. Monitoring the progress of the project | | | | | | | | | | | | | | | | | | | | | | | | |
| 11. Sharing Session of participating schools | | | | | | | | | | | | | | | | | | | | | | | | |
| 12. Progress Reports to QEF | | | | | | | | | | | | | | | | | | | | | | | | |

VI. Expected outcome and Deliverables

The activities of the project will produce the following outcomes:

(i) Establishment of School Culture for Promoting Assessment for Learning

After practicing strategies of AfL, each participating school will:

- (a) Have developed a school culture for promoting AfL – the way that raises standard of achievement through classroom assessment (Black & William, 1998b);
- (b) Develop a school-based assessment mechanism which contributes to the development of an effective school;
- (c) Promote and facilitate the use of diagnostic data and information derived from assessment to improve programs, instruction and student learning;
- (d) Support the development and maintenance of profession learning communities – a culture of continuous improvement that encourages and support students, educators and communities to self-evaluate and reflect on student learning outcomes;
- (e) Strengthen the ability to report to the stakeholders on student learning and school effectiveness;
- (f) Engage teachers in identifying processes for the effective use of assessment information and in sharing responsibility for learning outcomes
- (g) Provide teachers with the achievement data that are referenced to curriculum strands and learning objectives;
- (h) Enhance children's self-regulated learning abilities;
- (i) Have AfL to be an essential and integral element for daily teaching and learning process.
- (j) Have parents' recognition and support that AfL can enhance children's learning effectiveness.

(ii) Collation of School-based Curriculum Materials with Evaluation Tools That Facilitate Assessment for Learning – Teaching Kits for School-based AfL Curriculum/Assessment Framework

After the project, quality school-based curriculum program materials will be collated as exemplars and resource packages for dissemination.

(iii) Training Packages and Publications

- (a) After trailing the training programs for the schools, there will be six training packages that will be useful for other schools to have similar endeavour.
- (b) A booklet on "Assessment for Learning" will be published based on the experience gained by the participating schools. The booklet aims at helping other schools establish an AfL framework in curriculum planning and acquire the knowledge, skills and techniques for incorporating AfL elements in daily practices.
- (c) When the school-based assessment tools are well-developed in the project, a booklet with the collation of strategies and a variety of tools for formative assessment will be published and be available to other schools as practical resources. The booklet will outline the choice of specific strategy and the relevant assessment tool(s) (e.g. observation checklists, anecdotal, rating scales, assessment rubrics, etc.) that can be used, and their functions for continuous improvement of student learning.

VII. Evaluation of the Project

Both internal and external approaches will be adopted in the monitoring and evaluation of the project.

A. The internal monitoring and evaluation of the project involves the participating schools and teachers in the following ways:

(i) The School Self-evaluation on the effectiveness of the key program(s)

For each school at the end of the key program(s), the extent to which the teachers practicing assessment for learning will be evaluated and the results will be in the schools' annual profiles and also in the project reports.

(ii) The 21-hour Training Programs for members of the School-based Assessment Development Committees

The six modules of the training programs will be evaluated each at the end of the courses in the areas, such as, content, presentation skills, design and structure, and alike.

The participants will also be required to comment on the general usefulness of the courses and to make suggestions for further improvement.

(iii) The Four Half-day Training and Practicum Workshops for teachers in each school

After each workshop, teacher participants will be asked to rate the workshop in the areas, such as, content, presentation skills, design and structure and also to comment on its general usefulness for them.

(iv) The Two Half-day Class Observations and Post-observation Meetings in each school

After each of the class observations in the half-day activities, teacher participants will be asked to rate the usefulness of the activities and class observations. Since there are also meetings among teachers from sister schools—pairs of primary schools and kindergartens, teachers' feelings and feedback will be sought about the effectiveness and general usefulness of such a linkage between the primary schools and the early childhood education institutions.

(v) Parent Workshops for all 20 schools

After each workshop, participants will be asked to rate the workshop in the areas, such as, content, presentation skills, design and structure, and alike. They will also be required to comment on the general usefulness of the courses and to make suggestions for further improvement.

(vi) The development of school-based curriculum materials

The usefulness of the curriculum materials can be evaluated by conducting a survey on the opinions of the users, that is, the principals and the teachers. The results of the evaluation will be presented in the project report each year.

(vii) The Overall Effectiveness and Usefulness of the Project

This will be done through conducting a survey among the participating schools and teachers concerning its effectiveness and usefulness. The results of evaluation will be presented in the project report each year.

B. External evaluation of the project

The primary and ultimate aim of this project is to assist school to put AfL into practice and to develop sets of curriculum materials, so as to promote continuous development of children's learning and education standard. External evaluation of the project can be done through by The Project expert reviewers to visit the participating schools in the school trainings and workshops.



VIII. Budget

| Expenses | Phase I | Phase II | Total |
|---|---|---|--|
| I. Staff Cost | \$765,600 | \$765,600 | \$1,531,200 |
| 1. A Full-time School Development Officer of the Project for 24 months (i) Responsible for the running of the whole project. (ii) Provide assistance to both the Project Leader and the participating schools; (iii) Responsible for running the training sessions and school-based workshops for each school; (iv) Carrying out the research into the learning capacity of the participating schools; (v) Assist in writing up the reports for schools and for the whole project; (vi) The School Development Officer will be trained by the Project Leaders from time to time to fulfill expectations of him/her and to provide appropriate service and support to the participating schools; (vii) The School Development Officer should be a person of higher caliber, with a higher degree, and/or one has rich experience in curriculum development and school education. | \$564,000 (For 12 months @\$46,000 per month plus 5% of MPF capped at HK\$1,000) | \$564,000 (For 12 months @\$46,000 per month plus 5% of MPF capped at H.K\$1,000) | \$1,128,000 |
| 2. A Full-time Project Co-ordinator (PC) for 24 Months (i) Provide assistance to both the School Development Officer, the Project Leader and the participating schools; (ii) Responsible for liaison with the schools, data analysis, preparing of packages and drafting of reports of evaluation and so forth. The PC should be a graduate specializing in statistical analysis and evaluation methods for the analysis of the schools' performances; (iii) The PC will be trained by the Project Leaders from time to time to fulfill expectations of him/her and to provide appropriate service and support to the participating schools | \$201,600 (For 12 months @\$16,000 per month plus 5% of MPF) | \$201,600 (For 12 months @\$16,000 per month plus 5% of MPF) | \$403,200 |
| II. Teacher Development Programs Offered by the SDET Project Team | \$519,800 | \$538,800 | \$1,058,600 |
| 1. Two training programs for members of SBADC for kindergartens and primary schools respectively (6 Modules for each program) (i) Instruction fee for Module 1-6 (a total of 6 sessions for 4 hours per session; 2 sessions for each Module with 10 schools per session) (ii) Developing course materials for the six Modules (for designing, typing and editing, etc) (\$ 700 per hours with 30 hours per module) (iii) Printing of training packages (a total of 3 training sessions in each year X 100 participants, @\$50/participant) (iv) Cost of administration (for 6 training sessions in each year: 2 sessions for each Module, 3 Modules for each year; @ \$2,000 for each session) | \$106,800 \$16,800 (Instruction fee: \$700 per hour) \$63,000 \$15,000 \$12,000 | \$106,800 \$16,800 (Instruction fee: \$700 per hour) \$63,000 \$15,000 \$12,000 | \$213,600 \$33,600 \$126,000 \$30,000 \$24,000 |

| | | | |
|---|--------------------|--------------------|--------------------|
| 2. Two half-day school-based training workshops for each school in two year (One for each year) | \$77,000 | \$77,000 | \$154,000 |
| (i) Developing course materials for the workshops in each year (for designing, typing and editing, etc) (\$ 700 per hours with 30 hours per module) | \$21,000 | \$21,000 | \$42,000 |
| (ii) Instruction fee (4 hours for each workshop, instruction fee \$ 700 per hour) | \$56,000 | \$56,000 | \$112,000 |
| 3. Consultation on the Development of the School-based Curriculum/Assessment Teaching Kits (16 hours for each school in each year, \$700 per hour) | \$224,000 | \$224,000 | \$448,000 |
| 4. Two half-day Practicum Workshop for each school Consultation fee (4 hours per school with Consultation fee \$700 per hour) | \$56,000 | \$56,000 | \$112,000 |
| 5. Two lesson observations and consultation for each school (4 hours per session with Consultation fee \$700 per hour) | \$56,000 | \$56,000 | \$112,000 |
| 6. One parent workshop for each school in 2 nd Year (To be conducted by schools) | | | |
| (i) Developing course materials (20 hours for \$700 per hour) | \$- | \$14,000 | \$14,000 |
| III. Administrative Cost of the Project | \$95,000 | \$95,000 | \$190,000 |
| 1a. Travelling expenses in liaison with the schools | \$20,000 | \$20,000 | \$40,000 |
| 1b. Postage expenses | | | |
| 2 Printing materials for the development of School-based Curriculum/Assessment Teaching Kits, Booklet of school-based assessment tools, Training packages and materials for dissemination of good practices | \$50,000 | \$50,000 | \$100,000 |
| 3. Publication of occasional papers and newsletters | \$20,000 | \$20,000 | \$40,000 |
| 4. Reference materials | \$5,000 | \$5,000 | \$10,000 |
| IV. Administrative Support Services | \$30,000 | \$30,000 | \$60,000 |
| These Included but are not limited to research administration services, staff appointment & payroll services, Faculty / Development/ Unit administrative services. | | | |
| V. Financial Support Services | \$35,000 | \$35,000 | \$70,000 |
| These include but are not limited to accounting services, e.g., budget/financial statements, cash receipts, purchasing & payments. | | | |
| VI. Facilities | \$25,000 | \$25,000 | \$50,000 |
| These include but are not limited to space utilization & occupancy costs, central computing services, central library services. | | | |
| Sub-Total | \$1,470,400 | \$1,484,400 | \$2,954,800 |
| VII Contingency Fee (3%) | \$22,000 | \$23,200 | \$45,200 |
| Grand Total | \$1,492,400 | \$1,507,600 | \$3,000,000 |



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