QEF 2009/0334 revised

### Part C Project Details

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## (a) Goals and Objectives

### Four major goals of the present project

The first goal is to enrich the existing data corpus of Chinese multi-character words based on primary text books in Hong Kong. Through making reference to the databases (based on text books) in mainland China, a richer resource for the selection of teaching materials can be developed.

The second goal is to establish a school-based, theory-driven, remedial programme for P.2 and P.3 students with specific reading difficulties (SpLD) in Chinese. The training programme is divided into three stages, within which each participant has to acquire the skills targeted at each stage to proceed to the next stage of training. The successful completion of a phase is determined by the results of a post-treatment probe test conducted at the end of each treatment session.

In the first stage, morphological awareness is fostered by exposing students to two-character words consisting of productive free morphemes (e.g. 醉酒 /zoey3 zau2/ [drunk]). After they can successfully manipulate the constituent productive free morphemes in two-character words, they will be promoted to the second stage where non-productive free morphemes and productive bound morphemes two-character words will be introduced (e.g. 階級 /gaail kap1/ [rank], <non productive free>; 統治 /tung2 zi6/ [to rule], productive bound>). At this stage two-character words will be constructed by combining one productive free morpheme learned in the first stage and a non-productive free morpheme or a productive bound morpheme introduced in this stage.

Up to here, students will be instructed to make use of the whole word meaning and that of the learnt constituent productive free morphemes to infer the meanings of the non-productive free morphemes and the productive bound morphemes within the target bi-morphemic words. Treatment will proceed to the third phase which introduces non-productive bound morphemes (e.g. 承諾 /sing4 nok6/ [promise]) after the students can achieve the target of the second phase. Bi-morphemic words consist of one learnt morpheme and one non-productive bound morpheme introduced in this third phase will also be introduced. The students will be instructed to, again, make use of the whole word meanings and that of the learnt morphemes to infer the meanings of the non-productive bound morphemes. Treatment materials needed for each of the phases and post-treatment probe test will be prepared in a way that all materials can be re-used.

The third goal is to develop a teacher-friendly manual for the school-based remedial programme. We plan to implement a 16-week, 1.5-hour per week training for 2-3 primary 2 and primary 3 students with SpLD. This programme will make use of existing resources in schools. In addition to the weekly 1.5-hour training, students will be assigned home practice to foster the generalization of their improved morphological awareness to other tasks in school. Once the stimulus materials and the programme plan are ready, all participants will be trained to implement the remedial programme. After each session, each participant will fill in an evaluation form which aims at gathering their feedback on their participation and the programme. The data collected will be used for the further development of the training provided for the participants and to modify the remedial programme. A teacher manual will be written up to ensure sustainability of the programme which will be administered primarily by teachers in the future.

The fourth goal is to create on the internet an e-learning centre for schools using this or related programmes to first, share teaching materials and teaching experiences and second, for teachers and relevant professionals who would like to learn to use the remedial programme. On one hand, users can learn how to use the programme by working their way from the lowest level to the highest through an interactive computer programme. On the other hand, as more and more professionals are employing the programme in helping students with SpLD, more exchanges of experience and sharing of teaching materials will be facilitated through the platform. It is expected that the adaptability of the remedial programme to different settings with be further improved through such exchanges.

Thirty-two P.2 and P.3 students who are identified as SpLD in 2 local primary schools will be recruited. The following standardized tests, namely the Raven's Standard Progressive Matrices (Raven, 1986), the visual memory and visual perceptual subtests of the Test of Visual-Perceptual Skills (non-motor) Revised (Gardner, 1996), and the word reading subtest of the Hong Kong Test of Specific Learning Difficulties (Ho, Chan, Tsang, & Lee, 2000) will be administered to confirm their candidacies.

#### Treatment schedule

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A school-based team will be set up in each of the participating schools. One teacher and/or student guidance teacher (SGT) or student guidance personnel (SGP) and six to ten volunteer student helpers or parents of students will be recruited. The project team will provide the training for teachers and SGT/SGPs who will in turn train up their student helpers at start. The materials prepared for training will used to develop the e-learning programme.

The remedial programme will be conducted twice in each participating school across two semesters (Feb to Apr & May to Jun) in one academic year. All the treatment sessions will be run by existing school personnel with help from the parents of students with dyslexia. A total of two remedial programmes, one in each of the two participating schools, will be conducted according to the following schedule:

	2010	2011	2012
SCHOOLI	Dec (preparation)	Jan –Jun (treatment)	
SCHOOL2	Dec (preparation)	Oct 2011-	Mar 2012 (treatment)

### Materials and stimuli

The content of the Word Corpus of Hong Kong Primary School Chinese – Revised (Lau, Leung, & Cheung, 2008b) will be enriched using Xing's (2006) database. This will be done according to the following four steps:

- 1) Converting all the content of Xing's (2006) database from simplified Chinese into traditional Chinese
- 2) Transforming the homographs (e.g. 后→後) in simplified Chinese but not in traditional Chinese according to their meaning
- 3) Identifying all the words in Xing's (2006) database that are formed by morphemes that are used in textbooks in Hong Kong
- 4) Excluding words that are not applicable to Hong Kong children due to cultural differences from the words identified in step 3

All the treatment stimuli will be selected from the newly developed database. As the development of morphological awareness is closely related to the set of multi-character words to which the children are being exposed, each stimulus multi-character word will be chosen on the basis of productivity, boundedness and transparency to foster the development of morphological awareness described above (please refer to the Goals and Objectives section for examples).

### (b) Needs Assessment and Applicant's Capability

In Chinese scripts, there are approximately 3000 commonly used characters which create over thousands of multi-character-words (Xing, 2006) and 77.7% of them are compound words that are formed by combining two or more morphemes, the basic meaningful units of a language. In Chinese, one morpheme is usually represented by one character. For example, the multi-character word,食店/sik6 dim3/[restaurant], is formed by combining the two characters (two morphemes) 食/sik6/[eat] and /dim3/[shop].

When children encounter a new multi-character word, there are two possible methods of learning the new word. The first method is to learn it through rote memory where the new multi-character word's pronunciation and meaning are learnt as a whole. A total of about 40000 plus (Sun et al., 1997) multi-character words would

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have to be memorized in order to comprehend them in this way. The second method is to learn the compound words analytically in a decomposed manner. Using the multi-character word,食店 /sik6 dim3/ [restaurant] as an example, the meanings and pronunciations of the constituent morphemes 食/sik6/[eat] and 店/dim3/[shop] are decomposed and manipulated to infer or deduce the meaning as well as the pronunciation of the whole word 食店. Through using the second method, compared with the first method, children have to memorize 3000 characters only. Without any doubt—40,000 plus versus 3000—the second method is more effective.

This ability to manipulate the constituent morphemes of multi-character words is usually termed morphological awareness. In the past decades, many studies have reported the significant role of morphological awareness in reading development (e.g. Carlisle, 2000; Carlisle & Fleming, 2003; McBride-Chang, Shu, Zhou, Wat, & Wagner, 2003; Nagy, Berninger, & Abbott, 2006; Shu, McBride-Chang, Wu, & Liu, 2006). These studies indicate that beginning readers and poor readers have poorer morphological awareness than good readers (Carlisle & Fleming, 2003; Leong, 1999; Shu, et al., 2006). Some studies further suggest that poor morphological awareness is the cause of developmental dyslexia. In fact, experienced teachers and therapists who are dealing with beginning readers and poor readers can easily provide examples of young children's reading aloud errors to support this claim. For example, when children were asked to read aloud 潔/git3/ meaning [clean], very often they demonstrated selection errors, where 潔/git3/was read as 清/cing1/[clear]. These errors suggest that the phonological form of the corresponding multi-character word 清潔/cing1git3/ meaning [clean] were stored holistically, and the child selects to read aloud the first component syllable instead of the syllable represented by the target character. It is hypothesized that if the morphological awareness of students improves, they can make use of the more effective analytic approach in their learning of new words. Consequently, their reading abilities can be dramatically improved.

The understanding that meanings of multi-character words are related to that of their constituent morphemes, is affected by the following three key factors:

- [1] The semantic transparency of the complex words. Semantic transparency concerns the contribution of the meanings of the constituent morphemes to the meaning of the complex word. Transparent words are those where the whole word meanings can be directly derived according to the meanings of the constituent morphemes, while opaque words cannot. An example of a transparent word in Chinese is 手錶 /sau2 biu1/ [hand-watch] because the whole word meaning can be directly derived from the meaning of the first morpheme 手 /sau2/ [hand] and the second morpheme 錶 /biu1/ [watch]. An example of an opaque word in Chinese is 馬上 /ma5 soeng6/ [immediately] because the meanings of the first morpheme 馬 /ma5/ [horse] and the second morpheme 上 /soeng6/ [up] do not contribute to the whole word meaning. For children to understand that the meanings of complex words are related to those of the constituent morphemes, the multi-character words concerned must be semantically transparent. The introduction of opaque words, on the other hand, would hinder the development of morphological awareness.
- [2] The boundedness of the constituent morphemes. Boundedness concerns whether a morpheme can be used independently as a word. Free morphemes are those that can be used independently as words (e.g. 手 /sau2/ [hand]) while bound morphemes are those that cannot (e.g. 庇 /bei3/ [protect]). It can be deduced that to understand the relations between the whole word meanings and the constituent morpheme meanings of multi-character words formed by free morphemes should be easier for children than with bound morphemes because direct comparisons between the meanings can be achieved. Multi-character words formed by bound morphemes, on the other hand, are more difficult because the meanings of bound morphemes are not immediately available. The meanings of bound morphemes have to be extracted from the intersection of the meaning of the words in which it occurs (e.g., the meaning of the bound morpheme 庇 must be obtained through the meanings of the words containing this particular morpheme such as 庇護 /bei3 wu6/ [shelter] and 庇佑 /bei3 jau6/ [to bless and protect]).
  - [3] The productivity of the constituent morphemes. Productivity concerns the number of words that are

formed by a particular morpheme. Productive morphemes are those that generate lots of words while non-productive morphemes are those that only generate a few words. An example of non-productive morphemes will be 翔 /coeng4/ [fly] because it only generates limited number of words. An example of a productive morpheme is 飛 /feil/ [fly]. Similar to the reason quoted in our discussion of boundedness, understanding the relations between whole word meanings and constituent morphemes meanings of complex words formed by productive morphemes should be easier because the occurrence of a productive morpheme in a large number of words with shared meanings should allow the reader to deduce the specific meaning of the morpheme through comparisons between whole word and constituent morpheme meanings.

Notice that these three key factors might exert independent as well as interaction effects on the development of morphological awareness. For example, to deduce the meaning of a productive bound morpheme is easier than that of a non-productive bound morpheme because the larger number of words that share similar meanings to the productive bound morpheme in the former case should allow easier meaning determination compared with the latter case. Similarly, non-productive free morphemes should be easier than non-productive bound morphemes. Hence, in the case of words formed by non-productive bound morphemes, it is possible that they might be recognized as opaque words because the meanings of the constituent morphemes are not readily accessible.

Developmental studies have proven the significant roles of boundedness, productivity and semantic transparency in children's reading. Lau, Leung, & Cheung (2008a) reported that P.2, 4 and 6 children are able to read aloud words with productive morphemes with higher accuracy than words with non-productive morphemes. They also found that Grade four and six children are able to read aloud words with free morphemes with higher accuracy than words with bound morphemes, independent of the productivity of the morphemes. Lau, Leung, & Cheung (2009) examined the effect of semantic transparency and found that Grade four and six children recognize transparent words faster than opaque words.

The causal role of morphological awareness in reading development was further supported by evidence from studies involving children with dyslexia. Lau, Leung, & Cheung (Submitted) found that semantically transparent morpheme did not facilitate the reading speed and accuracy of children with dyslexia while facilitations were observed in normal children matched for chronological age and in younger normal children matched for reading-level. Results suggest that insufficient morphological knowledge is one of the underlying deficits causing dyslexia. The next reasonable question to ask is how do we help those children with reading difficulties? Based on the review above, an up-to-date and theory driven treatment programme for children with developmental dyslexia should consist of training addressing the problem in establishing morphological awareness.

To improve children's morphological awareness, two steps are necessary. The first step is to introduce a large number of morphemes to children. The second step is to introduce a large number of multi-character words that are formed by these morphemes. We studied the words in Chinese textbooks used in Hong Kong primary schools and reported that there are about 2600 different morphemes which created about 6700 different multi-character words in all of the textbooks (Lau, et al., 2008b). This is far less than the 8822 morphemes reported by Xing (2006). On average, each morpheme produces less than three multi-character words in the Hong Kong textbooks. As described in the above, the productivity of morphemes plays an important role in the development of morphological awareness. The limited exposures to multi-character words, which in turn limited the productivities of morphemes, may well have further hindered the development of morphological awareness in poor readers in Hong Kong. Furthermore, simply using the existing words in the textbooks in treatment is not enough to achieve the second step in enhancing children's morphological awareness, which is to introduce a large number of multi-character words that are formed by the target morphemes. A database that contains a larger number of multi-character words is needed so that treatment stimuli can be selected.

In contrast with the limited number of multi-character words found in Hong Kong textbooks (Xing, 2006) identified 8822 multi-character words in textbooks used in the Mainland China. It is highly likely that we can find sufficient multi-character words from Xing's (2006) database in additional to the existing words used in Hong Kong textbooks on which to base our treatment programme. Yet, direct application of the materials listed in Xing's database is not recommended. There are three technical issues we have to address before the

materials can be used in our treatment design.

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The first issue concerns the different orthographic forms used in Xing's (2006) database and our database. Chinese script in mainland China is represented in simplified Chinese while traditional Chinese is used in Hong Kong. Hence, in order to make use of Xing's database, we have to first transform all of the words in Xing's database into traditional Chinese. The second issue is that there are a small number of characters that are homographs in simplified Chinese but not in traditional Chinese (e.g. the character 后 in simplified Chinese means both "queen" and "behind" while the two meanings are represented by two different characters in the traditional Chinese, 后 and 後). These homographs in simplified Chinese must be converted into their corresponding forms in traditional Chinese to avoid confusion. The third issue is that some words in Xing's database might not make sense to children in Hong Kong due to cultural differences. These words must be excluded so as to avoid confusion.

After these issues are resolved, we can then establish a database that serves as a useful resource for selection of teaching material either for treatment or many other educational purposes. One of the possible applications is the present proposed training programme where teaching materilas are selected through using the database developed.

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## (c) Targets and Expected Number of Beneficiaries

### **Targets**

Speech therapists, teachers (especially student guidance teachers) and parents of students with reading difficulties

### Estimated size of beneficiaries

Over 500 speech therapists in Hong Kong who are directly or indirectly treating students with reading difficulties.

All primary schools teachers (student guidance teachers in particular) and students with reading difficulties

## (d) Conceptual Framework

The whole project is designed in a way that the end product can be used to establish a school-based programme to deal with students with reading difficulties who are studying in mainstream schools. The concepts of remediation and continuous individualized assessment are also built into the programme.

### (e) Innovation

The outcome of this project is a specific school-based treatment programme for children with reading difficulties because of poor morphological awareness. It fits particularly well to the Tier II or III of the "3-Tier Reading Model for Elementary Schools" (Vaughan & Fuchs, 2003) that is currently promoted by the Education Bureau in mainstream primary schools. The result of the present proposed project should contribute constructively to the inclusive education reform and to the services provided to students with SpLD.

It also serves to improve teachers' knowledge of morphological processing of primary students and its significance in reading development. Moreover, the establishment of the e-learning centre helps to educate all those who are dealing with the students, teachers, assistance and parents alike, at no extra cost. This setup will make building up the remediation team much easier.

## (f) Extent of Teachers' and Principals' Involvement in the Project

Teachers, student guidance teachers in particular, will be an indispensable part of the programme. They will participate in the programme from the process of programme design, to the motivation of parents' participation, to the training of parents and to the implementation of the programme. Training will be provided to teachers of participating schools. Parents of children with reading difficulties are involved in the training and the actual implementation of the treatment programme.

### (g) Implementation Plan with Time-line

Period	Actions	Personnel involved
Nov – Dec 2010	(1) Establishment and updating of the multi-character database	Mainland research team
		HK research team Chinese Teachers
Nov – Dec 2010	<ul><li>(1) Recruiting subjects from primary schools</li><li>(2) Designing treatment program and teaching material selection</li></ul>	Speech therapists and teachers
Jan 2011	(1) Training for teacher and research assistants	Speech therapists and psychologists

	<ul> <li>SCHOOL 1: <ul> <li>(2) Collecting subjects mid-term relative positions in class, their performance on different Chinese examinations of the same year just before treatment</li> <li>(3) Pre-treatment measure, including reading skills, orthographic knowledge, morphological awareness</li> </ul> </li> </ul>	therapists, psychologists, and student helpers
Feb – June 2011	SCHOOL 1: (1) Administering treatment program and the collection of data	Teachers, student assistants, Speech therapists and psychologists
July 2011	(1) Collecting subjects end-term relative positions in class, their performance on different Chinese examinations of the same year just after treatment	
	SCHOOL 1: (2) Post-treatment measure, including reading skills, orthographic knowledge and morphological awareness	Speech therapists and psychologists
Aug 2011	SCHOOL 1: (1) Data Analysis	Teachers, student assistants, Speech therapists and psychologists
Sep 2011	SCHOOL 2: (1) Pre-treatment measure, including reading skills, orthographic knowledge, morphological awareness	psychologists and student helpers
Oct 2011– Feb 2012	SCHOOL 2: (1) Administering treatment program and the collection of data	Teachers, student assistants, Speech therapists and psychologists
	SCHOOL 2:  (1) Collecting subjects mid-term relative positions in class, their performance on different Chinese examinations of the same year just after treatment  (2) Post-treatment measure, including reading skills, orthographic knowledge and morphological awareness	Teachers, Speech therapists and psychologists
April – June 2012	<ol> <li>(1) Data analysis</li> <li>(2) Refine teaching materials and treatment programme based on the data collected, feedback from different sectors and our experience in administration of the programme.</li> <li>(3) Convert the 14 session treatment programme into teacher-friendly teaching plans.</li> <li>(4) Constructing a e-learning programme on the web</li> <li>(5) Dissemination of results and the publication of the e-learning programme</li> </ol>	•

## (h) Expected Deliverables and Outcomes

1. A data corpus of multi-syllabic words based on text books used by Hong Kong as well mainland

primary school students;

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- 2. Two 16-session, dyslexia treatment programmes, one for primary 2 (P.2) and one for primary 3 (P.3) students will be developed. Each programme will include sets of multi-character word stimuli specific to P.2 and P.3. Detailed teaching plans of the 16-session programmes with respective video clips stored in digital format will be included for easy access.
- 3. An e-learning programme on the internet for those who are interested in learning to use the programme.

## (i) Budget

	year 1	year 2	total
Salary	-		
Project officer	189,000.00	189,000.00	378,000.00
Substitution Teacher for running the program	nme 15,000.00	15,000.00	30,000.00
		subtotal: HF	CD 408,000.00
Service			
Student research assistant (for data corpus, treatment and training)	40,800.00	40,800.00	81,600.00
Technical assistant	18,000.00		18,000.00
		subtotal: H	KD 99,600.00
Equipment <u>Hardware</u>			
Data Base workstation x 3	24,000.00		24,000.00
Printer x 2	2,000.00		2,000.00
Scanner x2	2,000.00		2,000.00
Hard disk for storage of information	2,000.00		2,000.00
Software			
FileMakerPro (for database) x 2	3,000.00		3,000.00
		subtotal: HK	D 33,000.00
General expenses	·		
Consumables	7,000.00	3,000.00	10,000.00
Expenses relating to manual printing		10,000.00	10,000.00
Expenses relating to seminar		1,000.00	1,000.00
		subtotal: H	KD 21,000.00
Administrative service charge	10,800.00		10,800.00
		subtotal: H	KD 10,800.00

Grand total: HKD572,400.00

Job descriptions of Project Officer, research assistant (RA), student research assistant (student RA), technical assistant and substitution teacher:

### Project Officer:

Prepare Chinese character stimulus for P2 and P3 programme (it involves selecting appropriate Chinese characters for treatment from the data corpus);

Contacts of personnel involved in the project (teachers, parents and speech therapists);

Organize training for teachers, parents, student helpers, teaching assistants, social workers, and psychologists;

Organize and administer pre-treatment assessment of subjects;

Organize the collection of data before, during and after the implementation of the programme;

Data Analysis; and

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Drafting the treatment packages and teacher's manual for future users.

### Student RA:

Data corpus establishment;

Data Collection;

Assessment of subjects; and

Assist training parents, teachers, school-based personnel and primary student helpers.

### Technical assistant:

The establishment of a website for the e-learning programme and for the sharing of treatment materials developed.

### Substitute teacher:

Teacher involvement is the most important element to ensure sustainability of the programme. Substitute teacher is needed to free the teacher who is going to be in-charge of the programme for him/her to learn to administer the programme and to build up the team for the future administration of the programme.

## Justifications for the monthly salary of project officer (PO):

A PO will be employed under the regulations set by HKU. The monthly salary for a project officer is \$15,000.00 plus 5% MPF in the 1<sup>st</sup> year and the 2<sup>nd</sup> year. It is expected that the PO should have some years of experience in the field of specific reading difficulties and can handle database operations.

## Justification for the hourly rate for student RA, technical assistant and substitution teacher:

The hourly rate for relatively senior student RA is HKD 60 per hour. Four student RAs will be needed. Each of them will work for about 170 man-hour in each year (total 680 man-hour) for the training and maintenance work after the implementation of the programme.

Technical assistant will be employed using the same salary scale. An estimation of around 300 hours of work is needed for the webpage establishment, e-learning programme and the video editing for the manuals.

Salary for substitution teachers is calculated based on the estimation that for each participating school, an equivalent 15 days of work of a teacher is needed. A total of 30,000.00 are required for the employment of substitution teacher.

School 1	15 days	1000 per day	15,000.00
School 2	15 days	1000 per day	15,000.00

Justification for equipment:

Three workstations are required to handle the data corpus which contains text, graphics and sounds at different working sites. A better than normal computer is required to deal with the large amount of information involved. The printer, scanner and hard disk are for output and storage of information stored.

Justification for administrative service charges:

The amount will cover the cost of administrative support provided by HKU. It includes bookkeeping and management reporting (covering daily accounting tasks, periodic statements and reporting), staff recruitment and retention (covering advertisement, processing of applications and appointments), tendering and purchasing of equipment and supplies (covering provision of tendering and procurement services).

## Asset Usage Plan

Category  (in alphabetical order)	Item / Description	No. of Units	Total Cost	Proposed Plan for Deployment (Note)
audio and video equipment				
book & VCD				
computer hardware	Database workstations	3	24000	Will be used in the Division of Speech and Hearing Sciences at HKU
computer software	File Maker Pro	2	3000	Will be installed in the database workstation
musical instrument				
office equipment				
office furniture				
sports equipment				
Others				

Note: for use by school / organization / in other projects (please provide details of the department / centre to which the asset will be deployed and the planned usage of the asset in activities upon project completion).

### (j) Evaluation Parameters and Method

To examine the effectiveness of the treatment approach and to measure the efficacy of the current treatment program, the following participant information will be obtained:

Comparison between pre and post treatment scores on

- 1. Standardized tests on character and word naming (Ho et al., 2000; Leung, Lai & Kwan, 2008)
- 2. Morphological knowledge of participants
- 3. Relative position in class and performance in Chinese examinations to compare the progress of participants and those who have not participated in the programme.

The level of improvements in reading skills on words and characters, orthographic knowledge, morphological awareness and academic relative positions (general) in class and the relative academic positions (in Chinese

academic subjects) of the treatment group and the control groups will be compared. The difference obtained for individual students will be taken as the effect of the treatment and effect size across time will also give us information on the efficacy of the programme.

Questionnaires and interviews will also be administered to teachers and other participants across semesters to capture their feedback on the administration of the programme and the usefulness of the draft manuals.

## (k) Sustainability of the Outcomes of the Project

Materials developed from the project are designed for P.2 and P.3 students who are having specific reading difficulties. The package can be reused year after year for those P.2 and P.3 students who fit this category. Teachers, teacher assistants, other school-based personnel and parents who have participated in this project should be able to implement the same programme to P.2 and P.3 students in the coming years and teaching experience will enable further modification of the programme to suit different needs specific to individual schools. As long as the curriculum for Hong Kong primary school remains about the same, the school-based programme can be run in other schools, year after year.

## (I) Dissemination / Promotion

- 1. A softcopy of the school-based remedial programme package will be published on the internet for dissemination to schools and interested educators.
- 2. Training and sharing sessions will be organized for teachers and parents of schools interested in this programme.
- 3. The results of the study will be posted in the e-learning centre established.
- 4. Dissemination of findings in various international conferences.
- 5. Publications in relevant international journals.

# Report Submission Schedule

I/My school/My organization commit(s) to submit proper reports in strict accordance with the following schedule:

Project Management		Financial Management		
Type of Report and covering period	Report due day	Type of Report and covering period	Report due day	
Progress Report 1/11/2010 - 30/4/2011	31/5/2011	Interim Financial Report 1/11/2010 - 30/4/2011	31/5/2011	
Progress Report 1/5/2011 - 31/10/2011	30/11/2011	Interim Financial Report 1/5/2011 - 31/10/2011	31/11/2011	
Progress Report 1/11/2011 - 30/4/2012	31/5/2012	Interim Financial Report 1/11/2011 - 30/4/2012	31/5/2012	
Final Report 1/11/2010 - 31/10/2012	31/1/2013	Final Financial Report 1/5/2012 - 31/10/2012	31/1/2013	