

## **Programme 1: Collaborative Development Programmes on Learning, Teaching and Assessment Strategies**

### **The underpinning**

The education environment worldwide is changing rapidly in the last few decades due to factors such as:

- ✧ Increasing amounts of data, information and knowledge, in particular that of user generated content (UGC) we have to deal with in our daily work
- ✧ Half-life of much of the knowledge and information is getting shorter: information supplied to us in a structured professional development session months ago will often be outdated by the time we need to use it
- ✧ Changing demands of parents, students and employers on the skill set learned in a programme
- ✧ Etc.

2. As practitioners of the education sector, a sector where people work with their heads rather than with their hands, the challenges facing us day-to-day in our workplaces are not static; they are dynamics and generally with up-moving targets. These challenges are mainly originated from:

- a. The overwhelming volume of information and knowledge created from time-to-time:  
“Between the birth of the world and 2003, there were five exabytes of information created. We now create five exabytes every two days” Eric Schmidt, CEO Google (2010)
- b. The half-life of knowledge is shrinking.  
“The half-life of knowledge is 6 – 18 months and dropping. This time compares to a half-life in 1960s at being 12 – 15 years” Alex Hutchins Knoxville Adult Education Examiner (2011)
- c. Plus the escalating expectations of parents and students on anticipating that an education programme can directly link to further studies and/or workplace; while employers anticipate that graduates of an education programme would be able to assume related jobs without further on-the-job training.

3. Dynamic challenges in our workplaces imply that we have to adopt new ways of working. For people with prolonged working experiences in the sector, when they look back, they will find that the ways of student learning are changing continuously: for example, traditional content-rich knowledge transfer model can no longer motivate most students; new contexts (new disciplines and contents) as well as experience-rich learning by doing are becoming more popular. We have to adopt new strategies, technologies, and knowledge from time to time.

### **New ways of working required new ways of learning for teachers!!!**

#### **The New Ways of Learning**

4. The new ways of learning include shifting the foci:
- a. From content to action: increasing emphasis on learning by doing rather than learning by knowing due to the dynamic nature of knowledge and that the average half-life of knowledge is decreasing year-by-year.
  - b. From 'storing' knowledge to 'finding' or 'creating' knowledge: we may need only to memorise and store core concepts and strategies in our heads, instead of all the information and knowledge necessary to complete every task; we simply need a map of where to locate them.

A survey by Prof Robert Kelley of Carnegie Mellon University shows that in 1986, responders said that they needed to hold 75% of the information and knowledge to complete the requirements of their job. By 1997, the figure dropped to between 15% - 20%.

- c. From event to process: real learning and capability-building occurs not as a series of events, but through a series of processes over time, including experiences, taking the opportunities to practice, working and conversing with others in new ways and having the time to reflect on behavioural changes.
5. To summarize, the new ways of learning focus on core skill development means that structured learning plays a smaller part in the overall learning process. Change of focus in developing core skills through experiential learning approaches means a focus shift from explicit knowledge to action or tacit knowledge.

6. Unlike explicit knowledge, which can be expressed in formal and systematic language and shared in the form of data, scientific formulae, specifications, manuals and such like; and can be processed, transmitted and stored relatively easily, tacit knowledge is highly personal and hard to formalise. It is deeply rooted in action, procedures, routines, commitment, ideals, values and emotions.

**The Implication to the Professional Development of Teachers**

7. In teaching, factors underpinning the differences of a veteran teacher and of a novices teacher are not the differences on mastering the amount of subject matter knowledge; educational and learning theories; knowledge and skills in managing students in the classroom; or pedagogical skills and so on; it is on the differences of sensitivities on the needs of students and constraints of the environment; abilities to choose and apply appropriate learning content, context and strategies flexibly, and abilities to adjust strategies from time-to-time based on changes of the environment and student feedback formally and informally.

**In a nutshell, it is the tacit knowledge, not the explicit knowledge of a teacher that matter.**

8. To this end, the professional development of teachers is a continuous, self-transcending process through which one transcends the boundary of the old self into a new self by acquiring a new context, a new view of the world, and new knowledge. In short, it is NOT an event, it is a journey from being to becoming.

***a. The first step of the journey: Socialization***

Since tacit knowledge is difficult to formalise and often time and space specific, tacit knowledge can be acquired only through shared experience, such as spending time together, working in collaboration on specific tasks etc. Socialisation typically occurs in a traditional apprenticeship, where apprentices learn the tacit knowledge needed in their craft through hands-on experience, rather than from written manuals or textbooks.

To start the journey, it is essential to create a platform with the environment that teachers with shared vision and interests are able to get together and exchange views freely: acquiring the tacit knowledge from each other through sharing of experiences under a non-work environment.

**b. Crystallized the acquired tacit knowledge: Externalization**

When a teacher is able to apply the ideas and concepts acquired during socialization in his/her own work, the tacit knowledge is made explicit. Knowledge is thus crystallized and it becomes the basis of new knowledge.

**c. Converting explicit knowledge into complex explicit knowledge: Combination**

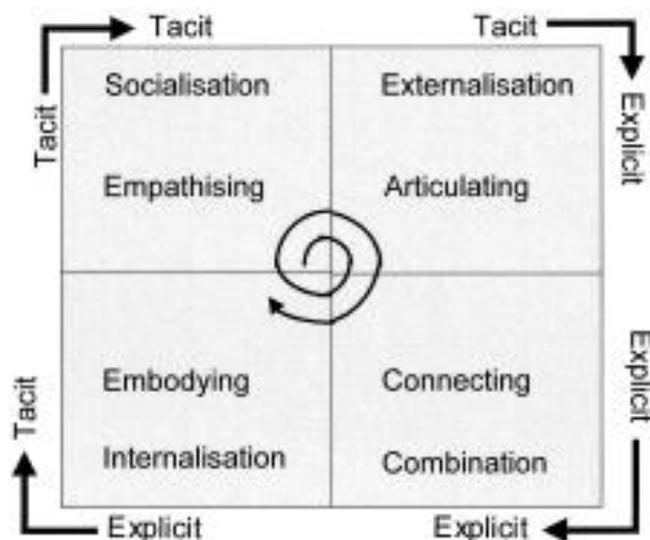
The practice of different teachers, i.e. their explicit knowledge, is collected then combined, edited or processed to form new knowledge. The new explicit knowledge is then disseminated among the contributors and becomes a new knowledge as it synthesizes knowledge from different sources in one context.

**d. Accumulating tacit knowledge at individual level: Internalisation**

Internalisation is the process of embodying explicit knowledge into tacit knowledge. Internalisation is closely related to 'learning by doing'. For example, through sharing the classroom practice of similar subject content in different institutions and/or contexts, reflecting on the effectiveness of strategies and feedbacks from students, teachers can internalise the explicit knowledge of different practices to enrich their own tacit knowledge.

When knowledge is transformed to part of individuals' tacit knowledge bases in the form of shared mental models or technical know-how, it becomes a valuable asset.

9. The tacit knowledge accumulated at the individual level can then set off a new spiral journey of knowledge creation. The journey can be depicted in the following diagram:



### **Creating a space for developing tacit knowledge of teachers**

10. Tacit knowledge of teachers needs a context to develop. Social, cultural and historical contexts are important for individuals as such contexts provide the basis for one to interpret information to create meanings: “there are no facts, only interpretations’. In the process, we need a ‘space’ for the discourse and knowledge creation. This space can include physical space such as an office space; virtual space such as email; and mental space such as shared ideals.

11. Through the space, teachers with share ideals on a particular issue of their work, for example: “What should be the focus of a financial accounting course of first year business studies of AD or HD programmes?”; “How to enhance student participation in first year English of AD or HD programmes?”; “How to design assessment strategies to assess the performance of students in a statistic course of second year IT related AD of HD programmes?” etc will have opportunities:

- a. To get together in a face-to-face situation to share their practices, feedbacks, engagement, passions and tension in handling the issue;
- b. To join heads in suggesting, planning and designing classroom practices, with commonality for all groups and speciality for individual group on that particular issue for trying out;
- c. To implement the suggested practices in their own situations, collecting feedbacks to share amongst the group; review, revise and repeat the process as appropriate;
- d. To document the experiences for future reference

### **A Perspective on Teacher Knowledge**

12. It is essential to have a conceptual framework on the required knowledge of teachers. Teacher knowledge can be broadly divided into two perpendicular dimensions, Content Knowledge in teaching and Forms of Teacher Knowledge.

13. Content Knowledge in teaching is the amount and organization of knowledge per se in the mind of the teacher, which can have the following 3 categories

- a. Subject matter content knowledge: it is beyond knowledge of facts or concepts of a domain; it is about the structures of the subject matter, which include both the substantive and syntactic structures.
  - ✧ Substantive structures are the variety of ways in which the basic concepts and principles of the discipline are organized to incorporate its

facts.

- ✧ Syntactic structure is the set of ways in which truth or falsehood, validity or invalidity are established.
- b. Pedagogical content knowledge: which goes beyond knowledge of subject matter per se to the dimension of subject matter for teaching – the ways of representing and formulating the subject that make it comprehensible to others; it also includes an understanding of what makes the learning of a specific topics easy or difficult: the conception and preconceptions that students of different ages and backgrounds bring to the learning.
  - c. Curriculum knowledge: the full range of programme designed for the teaching of particular subjects and topics at a given level, the variety of instructional materials available in relation to those programs, and the set of characteristics that serve as both the indications and contraindications for the use of particular curriculum materials in particular circumstances:
    - ✧ Lateral curriculum knowledge: curriculum materials under study by students in other subjects they are studying at the same time. With such knowledge, the teachers would be able to relate the content of a given course to topics or issues being discussed simultaneously in other classes.
    - ✧ Vertical curriculum knowledge: topics and issues they have been and will be taught in the same subject area

14. Forms of knowledge for teachers are the forms for representing content knowledge in teaching. Three forms of teacher knowledge are suggested:

- a. Propositional knowledge: results of researches, experiences etc are stated as lists of propositions. There are fundamentally 3 types of propositional knowledge:
  - i. Disciplined empirical or philosophical inquiry (Theoretical or principle);
  - ii. Practical experiences (Practical or maxim); and
  - iii. Moral and ethical reasoning (normative or norm)

Propositions are remarkably economical in form, containing and simplifying a great deal of complexity. However, they are (i) very hard to

remember, especially as they aggregated into long lists; and (ii) it is decontextualized, stripped down to their essentials, devoid of detail, emotion, or ambience. Yet to be remembered and wisely used, details and context may be needed.

- b. Case knowledge: case knowledge is knowledge of specific, well-documented, and richly described events. Case themselves are reports of events or sequences of events, the knowledge they represent is what makes them cases. There are 3 types of case:
  - i. Prototypes: exemplify theoretical principles
  - ii. Precedents: capture and communicate principles of practice or maxims
  - iii. Parables: convey norms or values
  
- c. Strategic knowledge: it is developed when the lessons of single principles contradict one another, or the precedents of particular cases are incompatible.
  - ✧ Strategic knowledge must be generated to extend understanding beyond principles to the wisdom of practice.
  - ✧ The teacher is capable of reflection leading to self-knowledge, the metacognitive awareness that distinguishes draftsman from architect, bookkeeper from auditor. A professional is capable not only of practicing and understanding his or her craft, but of communicating the reasons for professional decisions and actions to others.

Module 1A :Collaborative Development Programme on English Language at AD/HD level

Objective:	To develop learning strategies and related learning and assessment materials in encouraging active participation of students in English Language course of an AD or HD Programme
Related Competencies	LK43, LK53. LP42, LP43, LP52, LP62
Background:	<p>In teaching subjects which have a lot of facts and information, such as first year English, teachers tend to provide such facts and information through lecturing. A general pattern of student reaction is that:</p> <ol style="list-style-type: none"> <li>a. Students are listening passively and looking at the notes occasionally;</li> <li>b. Some are inattentively, may be doing something else; and</li> <li>c. It is difficult to obtain formative feedbacks from student on their learning from time to time.</li> </ol> <p>Learning is an experience, not just the transmissions of facts and information. Effective classroom requires the participations of both the teacher and students in creating an environment conducive to learning for that particular group.</p> <p>This programme intends to create opportunities for teachers teaching English language to students of AD/HD programmes to come together to exchange views and practices, such as the reactions of students on a particular topic, the choice of examples to demonstrate a particular application, etc; and to identify strategies which can encourage active participations of students in the development of lessons.</p>
Target Participants	Teachers teaching English language to students of AD or HD programmes who wish to explore, and willing to tryout, how to create an active and participating classroom which is conducive to student learning.
Deliverables of the Programme:	<ol style="list-style-type: none"> <li>a. Suggestions for organizing learning elements, which are mainly facts and information.</li> <li>b. Strategies in planning and implementing a learning classroom jointly created by teacher and students.</li> </ol>

	c. Supporting network of participants in sharing concepts, practice and feedbacks of students
Suggested activities and intermediate deliverables	<p>Each meeting will be around two hours in duration. Suggested activities and outcomes for the first 4 meetings are as follows:</p> <p><b><u>First Meeting</u></b></p> <p>In the first meeting, participants will:</p> <ul style="list-style-type: none"> <li>✧ Get to know each other and share their own experiences in teaching the subjects, the difficulties and success stories, problems facing them etc.</li> <li>✧ Develop the curriculum map, i.e. the learning elements and the relationships between these learning elements, of the subject based on the curriculum of a chosen institution as blueprint with inputs from colleagues of other institutions</li> <li>✧ Agree on important factors governing the design of learning activities, such as the vertical and horizontal learning experiences of students (which should be different for students following different programmes), the expected learning outcomes of the topic, including knowledge, skills and attitudes</li> </ul> <p>By the end of the first meeting, participants will identify one topic of the curriculum to design teaching plans (in the context of individual institution) as preparation for the second meeting.</p> <p><b><u>Second Meeting</u></b></p> <p>In the second meeting, participants will:</p> <ul style="list-style-type: none"> <li>✧ Share the works of group members which are designed according to the different environments and contexts of different institutions and programmes</li> <li>✧ Agree on the structure of learning elements of the topics and the learning outcomes to be achieved</li> <li>✧ Discuss on suggested teaching strategies to enable the achieving of learning outcomes, making references to the characteristics of students, which might include: <ul style="list-style-type: none"> <li>- Learning styles (thinker, doer etc)</li> <li>- Learning skills (reading comprehension, search for information, cognitive skills, such as problem solving,</li> </ul> </li> </ul>

	<p>analysis, synergizes etc)</p> <ul style="list-style-type: none"> <li>- Vertical and lateral learning experiences (what they have learned and will learn in the subject; what they have learned and will learn in other subjects in the same timeframe etc)</li> <li>- Interests and motivation (personal inclination, career development, enhance and establish status amongst peer and social groups etc)</li> </ul> <p>✧ Suggest teaching strategies for different student groups, which might include:</p> <ul style="list-style-type: none"> <li>- How to engage students on task</li> <li>- How to sequence the learning elements and map into lessons</li> <li>- Design of learning activities for one or a group of learning elements</li> <li>- Organize learning activities into lessons</li> <li>- Suggest connections between lessons and topics</li> </ul> <p>✧ Identify foci of observations and data to be collected in their tryouts</p> <p>This meeting might take longer; or extend for one more meeting depended on the situation.</p> <p><b><u>Third Meeting</u></b></p> <p>In the third meeting, participants will:</p> <ul style="list-style-type: none"> <li>✧ Share their problems and difficulties in their tryouts as well as success experiences</li> <li>✧ Summarize experiences and make suggestions for improvement</li> <li>✧ Review and revise the generic Learning and Teaching Skelton as appropriate</li> <li>✧ Identify another topic, which should be different in nature of the previous topic, e.g. if the first topic is on language skills, the second topic can be on a particular application, such as writing an application letter in responding to a job advertisement , etc, for further tryout</li> <li>✧ Repeat the previous process of lesson planning and suggesting observation foci</li> </ul>
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	<p><b><u>Fourth Meeting</u></b></p> <p>In the fourth meeting, participants will:</p> <ul style="list-style-type: none"> <li>✧ Share their problems and difficulties in their tryouts as well as success experiences, which might have different outcomes as the skill set required for the second topic is different from the first one</li> <li>✧ Summarize the observations of the first and second tryouts of all the group members and identify the commonalities and differences of different institutions</li> <li>✧ Identify possible underpinning factors of the commonalities and differences, such as differences in the vertical and horizontal curricula related to the topic; social backgrounds of students; students' self-concepts; learning skills of students; school environments; etc</li> <li>✧ Discuss on what next for the programme to go forward so as to make use of the knowledge and skills generated in the programme in their day-to-day teaching</li> </ul>
Programme arrangements	<ol style="list-style-type: none"> <li>a. It is anticipated that the group will meet on a regular basis (say, every two weeks), for a duration of at least 3 months. The modes and details of meetings; and activities will be decided by the group during the 1<sup>st</sup> and 2<sup>nd</sup> meetings.</li> <li>b. A facilitator will join every meeting to provide inputs and facilitate meetings.</li> <li>c. FSTE will provide secretarial support for the programme.</li> </ol>

For other subject area, the outline are basically similar except the subject content.