Is textbook obsolete in new education? A critical analysis on the value of textbook in an inquiry curriculum, with special reference to the new Primary General Studies Curriculum in Hong Kong.

1. Introduction

The new Primary General Studies (GS) is a landmark of the curriculum reform in Hong Kong. Since year 2001 the local authority launched the curriculum reform by issuing the "learning to learn" (CDC 2001) document, the curriculum of almost all subjects have been amended or even totally revised to fulfill the spirit of the new movement. It is the subject nature of the Primary GS that allows it to be reconstructed with the most flexibility, because the subject itself used to be an integrated product, created from the three different subjects; Primary Science, Primary Health and Primary Social Studies (CDC 1994). As a mater of fact, almost all principles, objectives and aims mentioned in the blue print of the curriculum reform could be found in the new Primary GS curriculum. As the official document indicates the position of the new General Studies in the School Curriculum is to:

"Provide students with opportunities to integrate skills, knowledge and values across the Key Learning Areas (KLAs) of Personal, Social and Humanities Education (PSHE), Science Education (SE) and Technology Education (TE). It promotes creativity through hands-on and minds-on learning experiences and problem-solving process. It emphasises student inquiry and the development of skills for learning to learn. As recommended in the CDC report learning to Learn - Life-long Learning and Whole-person Development (2001) and the Basic Education Curriculum Guide -Building on Strengths (2002)".

(CDC, 2002)

To embrace the wide scope of objectives, the authority has prepared a relative open structure for the new curriculum. Such framework is featured by three obvious directions: school-based, integrated and inquiry nature (CDC 2002). Basing on these attributes, this passage is written to analyze the role of textbook in such a new curriculum movement, especially, to look at the relationship between this traditional teaching tool and an inquiry curriculum.

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2. The issue of textbook

Should schools still use textbook in this new GS curriculum? As a tool accompanying teachers for centuries, textbook has become an inevitable device in traditional education. Wu and Kau (1997) even find that selecting a textbook has become one part of teacher's pedagogy. In Hong Kong, after a syllabus has been produced, the textbooks will determine how the topics are explained and the depth of coverage. This can be a very strong influence as textbooks are the primary resource used by teachers and pupils in most classrooms (Morris 1998).

Studies on the value of textbook have been stressing on its practical aspect as a type of teaching aid for transmitting knowledge of individual subject. Therefore, it would not be surprise for one to find out, the majority of research topics around the issue of textbook in Hong Kong, especially in primary school level, are subject-based. For example Lee and Sze (1998) study the value of English textbook; Ho Cheung and Wong (1997) examine the images inside textbook of Chinese subject, Man (1995) looks into the quality of child literature in textbooks and Han and Ren (1998) investigate the usage of mathematics textbook. Other similar studies includes Altbach (1989); Man (1995); Leung, Fung, Wong and Leung (1997); Fang (1998) and Sharp (1999). Certainly, there are also studies providing guidance for teachers to choose a right textbook. Examples like Leung, Fung, Wong and Leung (1997) analysis of four broad areas in evaluating textbook, namely, teaching materials, teaching activities, teaching resources, and attached teaching aids and the study of "Concept Mapping Used in the Construction of Elementary School Textbook Evaluation Standard" by Wu and Kau (1997). In addressing the big question of adopting the textbook or not, Davis and Meyer have published a book on criticizing traditional textbook and teaching materials that they are inflexible and not amendable to individualization. They suggest new electronic media offer the opportunity to reexamine old assumptions about teaching media and tools and reconsider their impact on learners (Davis and Meyer, 2002). Chung and Yuen (2003) also agree that information technology such as hypermedia authoring should be integrated into the current curriculum. There are also other researchers who concern about the textbook issue, adopting a cognitive and psychological perspective. Yen discovers that textbook designers should determine if the readers have appropriate schemata, including textual and content schema. He adds that textbook designers should note the coherence of textbook (Yen 1992). Fok and Wong (1995) confirm the contribution of the improvement of textbook to student learning in a cognitive perspective. Lan (1999) maintains that the compiling of textbooks should be based

on the developmental requirements of the students. Generally speaking, there are few studies focusing on the issue of local textbook in relationship to the issue of education paradigm or different schools of curriculum theories.

2.1 The textbook and the school-based curriculum

According to the new GS Guideline, schools should organize the "core elements" and "extend elements", listed out by the authority, into various learning themes and thus construct their own GS curriculum (CDC 2002). In order to maintain as much flexibility as possible, the authority articulates her view that:

"It is well understood that the concept of 'one-size-fits all' does not work. Therefore, each school, with its unique characteristics of teachers and students, should attempt to adapt the central curriculum to different degrees by varying the organization of contents, contexts, learning and teaching strategies, and criteria and modes of assessment to help their students achieve the learning targets."

(Section 3.1, CDC 2002)

Under this school-based principle, teachers are encouraged to prepare the new GS lessons collaboratively as the document denotes "collaborative lesson preparation is important for school-based curriculum development...GS teachers are strongly encouraged to make use of collaborative lesson preparation" (Section 3.2 CDC 2002). With such supportive environment and strong instruction, the authority expects local primary schools to initiate their own curriculum innovation by designing a school-based GS curriculum through collaboration inside schools. It is reasonable to infer that schools would then design their school-based curriculum and, owing to the "one-size-cannot–fit-all" principle, the adoption of textbook may be minimized. In fact, the CDC strongly encourage schools that

"the open curriculum framework of GS allows a high degree of flexibility and innovation in curriculum planning. In order to provide different learning experiences for students, schools are encouraged to consider their own mission and background and to build on their strengths in designing a quality GS curriculum to suit the needs and interests of their students"

(Section 3.3, CDC 2002)

Nevertheless, the immediate outcome in the first school year of implementing the new GS is that, over 97% of the primary schools still adopting GS textbooks as their

only source of teaching materials (New Asia, 2004). Only about 3% of the schools follow the direction to create their school-based GS curriculum and teaching materials. Such phenomena yield questions and challenges to the CDC's effort, because recently, the role of textbook has been intentionally diminished by the authority. Although the CDC still recognizes the value of textbook that it is "*the most commonly used resource in the classroom. Effective use of good textbooks can provide students with access to the knowledge they need*". (CDC 2002), she seriously warns teachers:

No textbook can cater to the needs of all students in a class. It is necessary, therefore, for teachers to adapt textbooks and complement them with other resources to match the needs and interests of students. Instructional materials can be developed from textbook content and from elsewhere to meet their needs.

(CDC 2002)

No one would argue that schools should select textbooks carefully to be as close a match as possible to the needs, interests and abilities of students as well as the teaching styles of teachers. However, the production of textbook is not at the hands of individual school and therefore the only possible way to obtain the custom-made teaching materials that closely match the needs of individual schools is surely by creating their own school-based materials. As Davis and Meyer (2003) remark, instead of considering students individually, textbook publishers usually operate on a one-size-fits-all mindset. Therefore although the authority has not ruled out the right for schools to adopt textbook as their teaching materials, the role of this traditional tool has deliberately marginalized. Accordingly, there leave a question why textbook still have been extensively adopted even in such a school-based orientated curriculum. Certainly, there should be various reasons for individual school or teacher to make such a decision. Before one start a critical research to look into the factors affecting teachers' choice in this topic, it would be worthwhile for one to look into the other two features of this new curriculum (inquiry and integrated) and analyze their relationship with the necessity of adopting textbook.

3. The issue of inquiry approach

The authority has clearly defined in the new GS curriculum Guide that this subject should be organized and taught in an inquiry direction (CDC 2002). The official Guide indicates "*taking the guiding principles into consideration, schools are encouraged to use the inquiry approach in the learning and teaching of GS*." (Section 4.2 CDC 2002). Reviewing the tradition of inquiry approach, one would easily trace

back to Rousseau's inculcation of students' desire, Pestalozzi's advocacy of interests and activities in curricula to Froebel's child-centered and interested-based curriculum. All build up to the great influence on John Dewey (Stoughten1981). Dewey was committed to an experimentalism that would merge the logical, psychological and social aspects of learning (Stoughton 1981). Other theorists who have contributed to the establishment of the inquiry perspective including Huebner (1974), who suggests the pedagogical inquiry which considers the experiential life-world of the learner; Greene(1975) recommends the "background awareness" of the personal existential situation and Pinar (1975) introduces the concept of "currere" to replace the passive term "curriculum". This theoretical background provides basis for the "constructivism" which asserts two major principles: first, knowledge is not passively received but actively built up by the cognizing subject and second, the function of cognition is adaptive and serves the organization of the experiential world (Glaserseld 1991).

Sliberman and others (1972) further delineate two characteristics of inquiry approach that (1) it includes gathering and processing information, test hypotheses and build theory and test them empirically by the learner. (2) The whole inquiry process is under the control of the learners. He adds that inquiry is fundamental form of learning. Piaget and Inhelder even suggest that

"There is no mode of mental activity in which this development trends (from highly egocentric, intuitive and concrete towards the more decentralized, analytical and abstract) are more evident than the process of inquiry."

(Inhelder and Piaget, 1958)

Building on such rationales, the authority emphases the sprit of the new curriculum as "learning through experience" or in her words learning by "*Hands-on and Minds-on-Activities*" (Section 4.22, CDC 2002).

Although the CDC admits that there are different methods to design and deliver an inquiry curriculum, she strongly recommends three teaching strategies to schools. They are Project-based Learning, Scientific Investigation and Services Learning (Section 4, CDC 2002). The CDC has even defined, step by step, the procedures in carrying out these three inquiry strategies. Such a recommendation could be based on good intention to assist teachers with handy strategies which have been proven effective elsewhere (Section 4, CDC 2002). In the other side of the picture, it may as well confuse teachers with the dubiousness that whether inquiry approach is a direction or some specified strategies or even steps; a curriculum structure or just some teaching methods. Sliberman and others (1972) remind there is a wide range of cognitive skills involved in the inquiry process and there are broad strategies and special tactics that help to make inquiry more productive. They further point out that *"there is no one fixed method of operation"*. Unlike the instruction written in the GS Guideline, Silberman and others insist that inquiry strategies are flexible and the so called 'scientific method' is not a fixed sequence of operations. Hirst (1974) also raises the point that inquiry methods are not superficially similar across different forms of knowledge.

3.1 The adoption of textbook in the inquiry curriculum

Either the CDC's standpoint or the Sliberman's view would gain certain consensus from teachers. The point here is the possible reactions when schools facing such a challenge. One of the possible responds may be that schools would follow the authority's recommendation to organize the lessons according to the "three inquiry strategies". If this is the case, schools would certainly create their own curriculum based on Project Learning, Science Investigation and Services Learning. Since the recommended strategies are open in structure and content, typical textbook could not fulfill the needs of all schools. However, what implies in such open inquiry strategies are great demand on teachers' ability, training and effort in leading six to eleven years old children to inquire and discover knowledge by themselves. The task is getting even more complicated when teachers, at the same time, have to show parents and community that what have to be learnt have really been learnt. Actually, the authority attempts to persuade the public that "learning is not about score" (direct translation from Chinese TV advertisement script, English script see appendix one) by broadcasting a series of advertisement in television and yet getting mountains of complaints from the public in return. Furthermore, if schools follow straightly the instruction to organize a GS subjects in the official way, they have to prepare for great change in their schools. Such changes should comprise the time table, the class structure, the classroom setting, the training and retraining of teachers, the assessment, community involvement and even more. As a result, a total open direction may not be realistic. Hence, local primary schools may adjust the recommended "three inquiry strategies" and treat them as ad hoc to existing lessons and only allow some extra-curricular time to implement these activities. If this is the situation, schools would surely adopt GS textbook for the normal GS lessons. As a mater of fact, the authority also pre-see such situation and she has already prescribed a rule that not less than 20% of lesson time should be allocated to these three strategies (Section 3, CDC 2002). However, the 80% of lesson time would then probably be kept on traditional style.

Another possible respond from schools may be to see the inquiry approach as a general direction but not confined to the "three inquiry strategies". Under this interpretation, schools may still design some Project-Based Learning, Science Investigation and Services Learning. Yet, they may not follow the prescribed procedures but allow individual teacher to decide the scope, steps and degree of structure of these strategies. Other than doing some of these recommended activities, teachers from different background may adopt their own inquiry strategies at different levels in normal lessons. Some may highly open their lessons to students' inquiry. At this type of lessons, textbook becomes unnecessary because students are encouraged to find out their own content or in other words their personal answers and meanings to specific topics. On the contrary, some other teachers may only alter the setting of the learning activities and make it more inquiry orientated. Those teachers may rearrange the content of the textbook into "inquiry-like activities". For instance, instead of teacher's explanation of the topic of "healthy eating habit", teachers may arrange students to brows in the internet so as to obtain relevant information and students would still use the content in textbook to consolidate or evaluate the information obtained from other sources. Under such circumstance, textbook is still a useful instrument at lessons.

Sliberman and others (1972) insist inquiry approach is not a set of procedures or methods and it may, by coincident, match the reality in the GS case. Although teachers may not even notice the philosophical background of the inquiry approach, they could still, through their experience, organize their lessons according to an inquiry spectrum or continuum (fig 1) and adopt certain degree of openness of the curriculum which would most suitable for their teaching styles. Consequently, it may result in a closed inquiry curriculum rather than, what the authority expected, an open inquiry curriculum. Therefore, if this is the case, textbook adoption may continue to be essential even in the new school year.

These supposed reactions are actually based on some concrete findings in relevant researches. Lam (2001) concludes her studies on local education reform that "*The top down reform advocates a new learning environment. However, the existing schools are built on traditional concepts and values; thus, much is left to be changed before the new education can take shape*". It also echoes Sashkin & Egermeier (1992) suggestion that in order to change school comprehensive restructuring of schools must be accommodated.

4. The issue of integrated curriculum

The authority has spent paragraphs in GS Guideline to explain the integrated nature of the new GS curriculum. She encourages schools to "develop different themes to integrate the proposed core elements of the curriculum (Section 2.6, CDC 2002). By providing exemplars using thematic integrated approach to organize the core elements of the six strands of GS (1. Health and Living, 2.People and environment, 3.Science and Technology in Every Day life, 4. Community and Citizen, 5. National Identity and Chinese Culture and 5. Global Understanding and Information Era), the CDC expects that most of the schools would follow and design their own thematic and integrated GS curriculum.

The issue of integrating curriculum has been receiving much attention in the curriculum reform in both Hong Kong and worldwide. Pring (1976) criticizes the traditional curriculum which organized according to academic disciplines with the following drawbacks:

- a. Not enough account is taken of the interests of pupils which means that they often lack motivation;
- b. The link between the content and skills promoted by different subjects are not made as the subjects are taught independently of each other;
- c. Little account it taken of pupils' precious experience, prior knowledge, local community affairs and current issues;
- d. Insufficient emphasis is given to addressing personal and social education, for example, career advice, moral and civic education.

Hirst (1974) also lists out the weakness of traditional subject-based curriculum that: First it restricts pupils in their thinking, second it ignores the important links that exist between different forms of knowledge and third it hinders the development of integrated points on life.

In view of these problems, progressive educationalist, under different titles, promote the concept of curriculum integration (Beane, 1997, Warga, 1997). Number of researches have spelt out the advantages of subject integration (Brooks & Brooks, 1993; Fung, 1994; Law, Wong &Wong 1994). For curriculum integration, knowledge and discipline are no longer the scaffolding of all curriculum. Rather, themes become the main structures for organizing curriculum content across different traditional subjects and disciplines.

4.1 The philosophical problems

According to Dewey, subject matter is a particular form of human experience which could not be overlooked (Dewey, 1902). Hirst (1974) also reminds that subject's boundaries are products of a number of historical factors, although the fundamental difference among forms of knowledge must not be confused with the long standing university subjects or disciplines. Deng (2001) adds that the key is to introducing educative experiences through psychologizing the subject matter, which entails the following aspects:

- a. Subject matter is used to determine criteria, essential elements and features that are desirable for learners.
- b. Psychologizing the subject matter requires interpreting learners to discern facts, ideas, interest, capabilities, and dispositions "stirring" in their experience which are the "signs" of the potentialities of further growth, using the subject matter as reference.
- c. It requires discovering resources and conditions that could foster the learning processes and growth, using the subject matter as guidance.

In fact, the argument against the curriculum integration usually come form the controversial about subject matter or in other words the view of "nature of knowledge". It is one of the main perspectives in analyzing curriculum theories (Moore 1978). Hirst (1974) points out "whether we like it or not, all knowledge is differentiated into a limited number of logically distinct forms or disciplines." Therefore Hirst discovered seven forms of knowledge and other scholars like Philip H. Phenix also delineates six realms of meaning in knowledge (Phenix, 1964). Although Phenix supports that if one possesses the tools of inquiry, he is not in need of a large store of accumulated knowledge, he insists:

"Each discipline has characteristic methods of investigation that distinguish from other disciplines. By describing the way men of knowledge in a particular field of scholarship go about their professional task, these methods in fact defined the discipline" (p.532, Phenix 1964)

Therefore, according to this school of theory, mastering the basic knowledge or the basic inquiry method for different disciplines becomes essential prior to any integration. Nevertheless, the authority, as mentioned earlier, emphases the overwhelming importance of foresting the generic skills in the process of inquiry and overlook the learning for basic elements of different disciplines. Dewey (1916) points out that the separation of thinking (one major attribute of the generic skills) and subject matter finds its root in the dualism of mind and world-the idea that mind and the world are two separate and independent realms. Facione (1990) remarks that "too much of value is lost if critical thinking is conceived of simply as a list of logical operations and domain-specific knowledge is conceived of simply as an aggregation of information".

Although the CDC claims that they have designed a balance curriculum which emphases knowledge, skill and attitude (section 1 CDC 2002), the actual result of the policy is to make the foresting of the nine generic skills become the prime destination of the whole curriculum while the importance of subject matter has been marginalized, especially under an unlimited integrated curriculum. The authority has been simply spreading an impression to the public that the problems of traditional content-centered or one way direction teaching methods could all be resolved by the integrated curriculum. Nevertheless, it is a philosophical fallacy as Hirst has already pointed out:

"Team teaching, enquiry methods....individual or group projects, are all usable with a subject-structured curriculum, while chalk and talk can perfectly well function in an integrated context"

(Hirst 1974)

The proposed direction to integrate whatever schools like in the name of school-based curriculum may finally turn out with a complicated mixture of content which without any philosophical rationale. For such situation, Hirst warns that "*if the logical structure of existing knowledge is one of distinct, unique, irreducible forms, it cannot readily regarded as a unity, but neither is it a chaos*" (Hirst 1974). Further, such combination may not actually improve the teaching quality because of the practical problems it leads to.

4.2 The practical problems

So, Cheng, Leung and Wong (1999) comment that when comparing with the spiral approach used in the conventional subjects, the current arrangement of the General Studies syllabus was not more effective in terms of facilitating pupils' learning. Morris (1998)'s studies of the difficulties of integrated curriculum in Hong Kong and find out that;

(1) Integrated curricula are not closely associated with the academic disciplines and are often associated with less able pupils. Consequently they are perceived to have 'low statuses by parents, teachers and pupils.

- (2) The provision of integrated curricular is administratively very difficult as it requires inputs from a range of teachers.
 - (3) Teachers have been educated in academic disciplines and are trained to teach them. They are not comfortable teaching topics outside their area of expertise.
 - (4) Integrated curricula have often been developed in ways which were centralized and bureaucratic. Consequently, there was little involvement of teachers and the curriculum was not seen as to address a real need, nor was it practical

As the principal of the Hong Kong Institute of Education (the institute trains most of the local teachers), Morris suggests that:

"Clearly therefore the central issue is not whether we should integrate or not but to determine the balance we want to achieve within a curriculum so that pupils are exposed to both the discipline and their integration."

(p. 79, Morris1998)

The assumption that teachers could handle any integrated curriculum is far form realistic. It may well be demonstrated by Shulman (1987)'s finding in Australian experience that subject knowledge and knowledge in teaching methods in relevant subjects are essential in any form of teaching, while, Lam (2001) also concludes similar findings for local teachers. Therefore, an unlimited integration may, at the end, create curriculum that no teachers are confident to teach or lead.

4.3 The GS as an integrated curriculum

Despite the philosophical argument concerning curriculum integration, the CDC has further promoted the integrated direction of the new GS by following measures:

- 1. Change the format of the GS Guideline. The authority no longer define the teaching content according to age levels (Primary one, primary two, etc), rather, they divide the core element and extend elements of the new GS into "key stages". Such a policy not only facilitates the creation of school-based curriculum, but also allows schools to integrated different subject content vertically. In the past the GS is a horizontal integrated subject which integrated different strands, yet, the new arrangement even allow schools to organize the elements horizontally across six strands and vertically across age groups.
- 2. As mentioned in earlier paragraph, the thematic approach is the recommended strategies to organize the curriculum. According to the instruction, schools should

develop their appropriate themes to cohere the relevant elements across the six strands. Other than that the CDC even encourage schools to include other elements from other Key Learning Areas into the theme based curriculum, as they indicates:

"The flexible curriculum framework allows teachers to design different themes to integrate the learning elements across the six strands and with other KLAs (Key learning Areas)."

(Section 4, CDC 2002)

Under such a highly flexible policy, schools could fully utilize the room for integration of content form different strands and even various academic subjects. Problems created form combining different subject matters seems to have been ignored

4.4 The adoption of textbook in the integrated curriculum

The flexibility to integrate the teaching elements provides schools with ample freedom in designing their own school-based curriculum. As long as the teaching strategy is an inquiry one, the curriculum could fulfill the basic requirement, despite the problem of subject matter or knowledge. However, as it has been explained, such curriculum decision not only raises questions in theoretical ground but also brings out practical obstacles to teachers. The ultimate situation may well be predicted by Morris (1998) that schools would keep the reliance on traditional disciplines and standardized subject matter and yet at the same time attempt to organize some integrated learning experience for students. This decision has probably been reflected by the wide adoption of the new GS textbook in local primary schools. Since the new textbooks are all written in integrated styles as suggested in the new GS Guide and have been approved by the authority (otherwise these textbooks would not appear in the recommended booklist of the CDC), schools using these textbooks are simply providing some integrated learning for students. Furthermore, one should not neglect that textbook authors are also crucial meaning maker in the process of integrating discrete content (Davis 1997). Nevertheless, the biggest difference between creating school-based integrated GS curriculum and using an integrated GS textbook is that, the knowledge, skills and learning experience are standardized in textbook. Such standardization brings out advantages and disadvantages. For the administrative purpose, using standardized textbook helps schools to monitor lessons and even standards and progress of students and teachers. Textbook content could also be highly relied on as assessment criteria for the learning. It provides a fair and open source to parents. On the contrary, the drawbacks are also obvious; the non-school-based integrated curriculum content could not take into account the students' needs of individual school. The content in textbook would finally become the only source of right answers for the inquiry activities. The degree and scope of integration of learning elements have been delineated by the textbook publishers instead of teachers. For the purpose of practical value, the easiness to be utilized would become one major consideration for textbook publishers and such consideration would most properly produce textbooks with least degree of integration.

5. The conclusion

After the discussion in previous paragraphs, there are several crucial viewpoints needs to be further clarified before one could launch a systematic study in the role of textbook in the new curriculum.

First, how do the teachers perceive the so-called inquiry approach as recommended by the authority? Not only is it a theoretical problem but also a practical issue that teachers need to decide how much "inquiry" is appropriate.

Second, although the CDC has deliberately made the structure of the new GS as open as possible, the problems of assessment, teachers' training background and the importance of subject matter have to be resolved. Otherwise, schools would only adopt the appearance of an integrated curriculum and yet going back to teaching subject matters of individual subjects by using standardized textbooks.

Third, the notion of school-based curriculum is a double-side blade. On one hand we may expect schools to created curriculum that is most suitable for their students. On the other hand, school may as well adopted a very conservative attitude and keep the curriculum as traditional as possible. If this is the case, textbook would become a helpful partner.

The term General Studies has sometimes misled teachers that this subject is simply the common-sense knowledge that without any structure or underlying rules. Yet as Hirst (1974) has found out the so called "common sense-knowledge also involves some conceptual structure". Once teachers could not master the necessary knowledge or skills involved the most possible action they could do is to rely on a textbook.

(4965words)

Appendix (1)

http://www.isd.gov.hk/chi/tvapi/edculture_c1.html

The script of the advertisement produced by the CDC Hong Kong (2004) Start a New Teaching and Learning Culture (1)

Boy:	The English teacher praised me yesterday!
Dad:	Yes, but what did you score?
Boy:	The English teacher said I'm creative but my handwriting
	could be better.
Mom:	Yes, but what did you score?
	(Parents Day)
Teacher:	His English has improved a lot.
Parents:	Yes, but what did he score?
Teacher :	We shouldn't just focus on scores. Let's also assess his
	daily performance in various areas.
Dad:	Yes, but how?
Teacher:	Well, our ongoing feedback and encouragement on his
	performance should give you a good idea.
Boy:	So, don't just ask me about my scores!
Slogan:	Learning : It's more than scoring
End super:	Start a New Teaching and Learning Culture

Fig (1) Angus Continuum



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