

# **Teaching Integrated Curriculum: Teachers' Challenges**

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## **Abstract**

This paper reports on a survey of the perceptions of schoolteachers regarding teaching integrated curricula in Hong Kong. A written questionnaire dealing with the theory and practice of curriculum integration was administered to a group of serving primary school teachers. The survey attempted to identify contexts that effect the introduction of curriculum integration and to discover the extent to which respondents recognized the need to enhance the implementation of curriculum integration in schools. Since teachers are the critical agents for bringing changes to curriculum and teaching, it also questioned teachers about challenges that needed to be overcome to ensure successful implementation of curriculum integration. Based on teacher concerns about teaching integrated curricula, findings of the survey contribute to making recommendations for future policy.

## **Introduction**

In Hong Kong, many educational changes have taken place since last decade. In 1975, the Activity Approach (AA) was officially introduced into schools to enhance teaching and learning at the primary level. One of the characteristics of AA is the promotion of Project Work or thematic approaches in teaching. This involves cross-curricular studies and integration of subject content. In 1985, the “Guidelines on Civic Education in Schools” was announced by the Education Department. It was intended to promote civic education through whole-school learning activities regarding the formal and informal curricula. In 1990, the Education Commission (1990) announced the Education Commission’s Report No.4 (ECR4) which recommended the establishment of a cross-curricular framework of targets and target-related assessments that would set a clearer direction for teaching, learning and assessment. Based on this framework, a Target-Oriented Curriculum (TOC) has been developed. Further, as mentioned in the Report, the school curriculum might be fragmented and compartmentalized; the content of school subjects and the range of subjects were increasing and this was placing much burden on students. Therefore, it was recommended that related areas of learning taught separately under different subject disciplines might be grouped together. In April 1992, therefore, a special section responsible for the integration of school subjects was established in the Curriculum Development Institute (CDI) of the Education Department. Moreover, General Studies was officially introduced in 1996 as a core subject in the primary school curriculum through integrating three subjects: Social Studies, Primary Science and Health Education. In sum, in order to provide students with a balanced primary school curriculum between the subject-bounded and integrated curriculum, a number of relevant measures have been introduced by the Hong Kong Government. In order to cope with the ‘information era’, the Curriculum Development Council (CDC) (2001) has proposed that school curriculum should provide students with five lifelong learning experiences; emphasis should be put on development of nine generic skills for lifelong learning; and the organization of the curriculum should move from compartmentalized and overcrowded school subjects to eight Key Learning Areas. Therefore, these new arrangements will then require greater continuity, progression and coherence to bridge gaps at interfaces and reinforce links of formal and informal curricula.

## **Implementation of Integrated Curriculum and Teacher Concern**

Glatthorn & Foshay (1991) claim, after decades of research on curriculum integration, that two broad findings are evident. Firstly, pupils who study integrated curricula learn to read, write and calculate as well as students who have studied more conventional curricula. Secondly, in general, integrated curricula achieve what they are designed to achieve. According to Lipson et al. (1993), the summary of research findings which support the positive effects of curriculum integration suggests that an integrated curriculum helps students apply skills; and an integrated knowledge base leads to faster retrieval of information. Multiple perspectives lead to a more integrated knowledge base; while an integrated curriculum encourages depth and breadth in learning, promotes positive attitudes in students and provides more quality time for curriculum exploration. Drake (1998, p.33) also summarizes the research on student benefits from integrated programs as follows:

Vars (1995, 1996) reviews more than 100 studies that took place from 1956 until 1995. He cautiously concludes that students in integrated programs do as well as, and often better than, students in conventional programs... Almost without exception, students in any type of connected curriculum program do as well or better on basic skills than students in traditional programs. The results of standardized tests follow the same pattern.

Furthermore, Beane (1997) points out that research reviews have indicated that integration does not appear to reduce pupil performance in the traditional measures of academic achievement. Therefore, in sum, it may be assumed there will be no loss in student learning for the implementation of integrated curriculum except for the difficulties encountered, as in other reforms, when teachers first face the innovation. According to the CDC, "Both integrated learning experiences and in the discipline-based studies are valuable for students. Therefore, students should be given opportunities to study both. .... Cross-Key Learning Areas studies also allow students to see things from different perspectives"(CDC, 2001, p.26). In order to tackle the problems students encounter in daily life, there is a need for teachers to help students develop abilities and skills for analyzing issues from different angles and apply knowledge of different domains through integrated studies. Therefore, curriculum integration should be one of the solutions that can bring about real changes in school life. Regarding the growing global interest in curriculum integration, Drake (1998) comments that in Australia, the development of such programs has accompanied the school reform movement; Israel is moving toward an integrated approach; across Canada and the United States, schools are experimenting with interdisciplinary programs and that interdisciplinary studies are most popular at the elementary level. Although curriculum integration has become more and more popular than before in many countries, there are still some problems that need to be dealt with in implementation.

### **Objectives of the Study**

A number of researches have been done in foreign countries on curriculum integration; typical examples include the Eight-years Study (Aikin, 1942) in the U.S.A., the Keele Integrated Studies Project (Shipman et al., 1974) in U.K. Both studies had put some of the critical issues on the importance of teachers' part in the curriculum integration. These include how teachers interpret or understand curriculum integration, challenges or obstacles to be overcome by teachers and their needs for support in the implementation process. As a consequence, some questions may be critical for the teaching of an integrated curriculum in Hong Kong: Do teachers concerned understand the innovation? Are they equipped with the necessary competence? What is teacher's resistance to change? How can resources and support for teachers be provided? What are the impacts on teachers? What are the supporting factors for curriculum integration? However, relevant local research on curriculum integration is scarce. Limited research had been done including the study conducted by Leung (2000) on the context, theory and practice of curriculum integration in Hong Kong's primary schools and the related survey conducted by the Curriculum Development Council

(CDC) (1999) on teachers' perceptions of the Guide to Primary Curriculum. According to Leung's study, it has recommended to carry further research in local context regarding teacher's role/part in the implementation of curriculum integration. Furthermore, according to the official report of the above-mentioned survey published by the CDC in 1999, the following is one of the main findings extracted in relation to curriculum integration: "Regarding the arrangement of learning activities, most teachers had little concern on the linkage with other subjects." In sum, if the government intends to implement curriculum integration successfully in primary schools, it is very important to find out whether teachers understand and support curriculum integration since they are critical to the dissemination of the curriculum initiatives. It is also expected that teachers are able to help in the dissemination of the curriculum reform in the future.

According to a number of educators (Jacobs, 1989; Gehrke, 1991; MacIver, 1990; Lipson et al., 1993; Drake, 1998), significant factors that teachers need to be considered in adopting an integrated curriculum approach in schools may include: common definitions of terms; available resources; flexibility in scheduling; team planning on teaching and assessment; parent and community support; and professional development. As a consequence, the objectives of the present study are developed with reference to the above-mentioned factors:

- To examine primary school teachers' perceptions concerning their understanding of curriculum integration;
- To determine the challenges which need to be overcome by teachers in teaching an integrated curriculum;
- To identify teachers' needs and professional development for teaching an integrated curriculum; and
- To make recommendations for the future implementation policy based on teacher concerns.

In sum, if the Education and Manpower Bureau (EMB) in Hong Kong intends to implement curriculum integration successfully in schools, it is very important to find out whether teachers understand and support curriculum integration since they are critical to the dissemination of the curriculum initiative.

## **Methodology**

A written questionnaire dealing with the above-mentioned objectives of the study on curriculum integration has been administered to the participants of the Primary Retraining Course (N=117) offered by the Hong Kong Institute of Education in 2002. Serving primary school teachers from 6 cohorts of course participants have been invited to respond to the questionnaire and a total of 117 replies were received. The whole questionnaire is divided into five sections:

- Section A: Basic respondent information – this part collects teachers’ background information including gender, teacher training, years of primary school teaching, main teaching group, main teaching subject, main teaching experience of integrated curriculum, type of schooling, school funding, and school district etc.
- Section B: Theory of curriculum integration – this part asks for respondents’ understanding of integrated curriculum. It asks for respondents’ attitudes towards the background and present situation of the primary curriculum (Likert scale).
- Section C: Comparing the Traditional Subject Approach with the Cross-Curricular Approach in various contexts (Likert Scale).
- Section D: Practice of curriculum integration – this part asks for respondents’ perceptions of teaching an integrated curriculum. It asks for respondents’ attitudes towards the impact on teachers regarding the implementation (Likert scale).
- Section E: Ranking of issues in relation to the implementation of curriculum integration:
- respondents’ ranking of importance towards the eight key learning areas as the major part of an integrated curriculum;
  - respondents’ ranking of order towards the most difficult tasks when teaching an integrated curriculum;
  - respondents’ ranking of order towards the most important factors for the success of implementing curriculum integration; and
  - respondents’ ranking order towards desirable professional development for teaching an integrated curriculum.

The data collected in the questionnaire survey has been analysed by means of the SPSS software using descriptive statistics including the ranking order, arithmetic mean and standard deviation. Likert scaling technique has been applied for individual parts of the questionnaire so that strength of attitude can be measured by assigning a number code to each attitude (strongly agree = 1, agree = 2, disagree = 3, strongly disagree = 4). Hence, the Mid-point of the theoretical range was 2.50. Those statements with high Mean scores greater than the Mid-point of the theoretical range (2.50) would be interpreted as respondents’ disagreement, while those with low Mean scores smaller than 2.50 would be interpreted as respondents’ agreement. The ranking order has been done by comparing the Mean scores.

### **Major Findings and Discussion**

A sample of the questionnaire items and the detailed response of teachers have been illustrated in *Appendix I*. The major findings of the survey, selected by the lowest Mean scores, are as follows:

#### ***Teachers’ perceptions concerning their understanding of curriculum integration***

Ninety-five per cent (95%) of teachers responded to the questionnaire agreed that “*the lateral coherence across some of the subjects needs to be developed*” (section B, item 2). Ninety per cent (90%) of teachers agreed “*integrated curriculum makes stronger linkage between learning in class*

*and in real life*” (section C, item 3) while eighty-eight per cent (88%) agreed that “*it needs a longer testing period for the implementation of curriculum integration*” (section C, item 1). Eighty-six per cent (86%) of teachers agreed that “*the 8 key learning areas are of equal importance for an integrated curriculum*” while the other fourteen per cent (14%) of teachers regarded “*Chinese and English as the most important Key Learning Areas for an integrated curriculum*” (section E, item 1).

According to teachers’ response, they generally agreed that school curriculum needs to have linkage among subject learning and linkage between learning in classroom and real-life. In any reform or innovation in education, the teacher is the key factor. The professional teacher will not only know what other teachers are doing, but will plan a teaching program to complement that of their colleagues (Lawton, 1989). A good professional teacher in Hong Kong, therefore, should be able to relate his or her own teaching to the whole curriculum in two dimensions: subject sequence integration and inter-subject integration.

Some teachers, according to their response to the questionnaire, may perceive curriculum integration in diversified ways. Alexander (1995, p.16) identifies an emphasis on the core disciplines as a central feature of what he terms a “classical humanist” approach to building a curriculum where the main purpose is to initiate the child into ‘the best of the cultural heritage, defined chiefly in terms of disciplines or forms of understanding: the arts, sciences and humanities.’ However one consequence of this approach as Beane (1997) has argued is that academics often define some subject areas as ‘high status’ in seeking to advance their own specialist interests and purposes. Subjects such as physical education and arts education are seen mainly as recreational activities whose rationale within the curriculum is to stimulate both the ‘body’ and the ‘senses’ so that an individual’s mind is refreshed and he/ she is able to engage in serious thought about language and literature, mathematics and science. Beane also sees this division into ‘high’ and ‘low’ status subjects as one of the main obstacles to full curriculum integration that once some subjects are given more weight than others the curriculum ceases to offer authentic meaningful experiences to students. It would appear that some teachers also perceived various degrees of importance for individual key learning areas. While there is nothing intrinsically wrong in putting greater emphasis on one part of an integrated curriculum, rather than another, there is a danger that such decisions will reflect the status of different subjects so, for example, Chinese Language is seen to be more important than Arts Education. Therefore, it is very critical for Hong Kong’s primary school teachers not to carry this negative legacy of classical humanism into their attempts to achieve a real form of integration.

In sum, the different views and definitions of curriculum integration are clearly important for the implementation. The recent curriculum reform in Hong Kong of the education system proposed by the Curriculum Development Council (2001) allows schools to opt for different approaches to, pace forward and timeframes for integrated learning. However, the issue is seen as a whole school

approach in response to the curriculum change. However, the key question is how teachers' diversities, if exist, are to be resolved so that a whole school approach or common understanding is to be adopted, at the level of implementation, for the development of curriculum integration.

### ***The obstacles which need to be overcome by teachers in teaching an integrated curriculum***

Teachers responded to the questionnaire agreed that the most difficult task in teaching integrated curriculum is “*assessing student learning by various methods*” while “*selecting themes for linking different subjects*” is the second most difficult task (section E, item 2).

Regarding assessing student learning, Ryan (1994), Wolfinger & Stockard (1997) and Drake (1998) all support the use of authentic assessment such as portfolios and projects methods as assessment for student learning. Thus, if there are reality-based learning and changes for appropriate teaching strategies for integrated learning needs, the introduction of portfolios and projects for authentic assessment, in addition to the traditional written assessment, could be possible solution for Hong Kong teachers to solve the challenges in the assessment for student learning. Regarding difficulties in developing instructional plans for integrated curriculum, Leung (2004b) argues that in some local schools the so-called “integrated curriculum” is still teacher-centered and authentic curriculum integration, rarely exists. Beane (1997) has suggested some features in the instructional design of integrated curriculum organized around real life problems and issues of personal and social significance. According to Beane, organizing centers can be topics that are already contained within the separate subjects, social issues, concerns of students themselves, appealing topics, and concepts. Teachers in Hong Kong may organize various integrated learning activities in the context of organizing center; therefore, knowledge can be developed to address the organizing center and finally emphasis can be placed on the themes or projects.

### ***Teachers' needs and professional development***

Eighty-seven per cent (87%) of teachers responded to the questionnaire agreed that they are “*frustrated by the heavy workload in teaching integrated curriculum*” (section D, item 5) while ninety-three per cent (93%) of teachers would like to “*get more information*” (section D, item 1). “*Full-time block-release courses*” and “*school-based training with external support*” were regarded as types of professional development in which teachers benefit most (section E, item 4).

Regarding the effects of curriculum integration on teachers, it brings a changing role for them. As a consequence, teachers need to upgrade themselves by learning more about the innovation by working collaboratively in teams with other teachers of diverse expertise. However, teachers may worry about the stress and extra workload brought by teaching integrated curriculum. Thus, it is critical that the benefits are seen to outweigh the extra workload and stress brought by the teaching. As Leung (2004a) argues, teachers need much support in preparing integrated learning in real-life context for students; therefore, policy makers as well as the school administrators need to handle the problem carefully in order to avoid teacher burnout. Furthermore, one of the main difficulties

may arise from the need for more cooperation among the subject departments within individual schools. Therefore, the establishment of a collaborative culture is vital for primary schools intent on implementing curriculum integration; and this is not an easy task for them to achieve. In addition, these schools also need to establish networks and links with the community to provide more opportunities for student learning. All these features demand high quality leadership and management in schools. Drake (1998) argues that internal obstacles such as extra stress and workload to curriculum integration can best be dealt with by allowing time for collaborative planning, in-servicing, and classroom experimentation. The obstacles, therefore, need to be removed before curriculum integration really can secure a place in the school curriculum.

According to teachers' response, they expressed the willing to be more knowledgeable to curriculum integration; therefore, professional development of teachers seems to be a critical issue for discussion. Regarding professional development of teachers, Kelly (1989) argues that critical factors could be school-based in nature, teachers' ability to evaluate the effectiveness of curriculum and the question of what kind of external help they need are crucial. On the professional development for teaching interdisciplinary studies, Miller et al. (1997) also indicate that most staff are receptive to the train-the-trainer approach. Therefore, it is expected that some teachers are able to help in the dissemination of the curriculum reform in the future. According to the reality of education in Hong Kong and the advice of experts from universities and the EMB, these teachers are expected to contribute to the development of integrated learning in individual schools, other than the theoretical advice, that other teachers can apply in the classroom situation.

### ***Recommendations for the future implementation policy***

*"Teachers' support to the curriculum reform"* and *"teachers' capacity in curriculum planning"* were regarded by teachers who responded to the questionnaire as the two most important factors for the success of implementing curriculum integration (section E, item 3).

Teachers need whole-school involvement in curriculum integration. Top down innovations generally fail. If teachers accept the change, believe the change enhances student learning, have a say in what is going into change, they will involve themselves in the innovation. At first, they may strongly object to the change; however, as curriculum integration becomes a fact of life, they will try to adapt to it. Nevertheless, their attitude may be passive rather than active at the beginning. If they do not have enough support, they may feel helpless. Collaborative cultures among teachers should be established to help each other during the transitional period. For the future needs of Hong Kong society, schoolteachers may commit themselves to support the implementation of curriculum integration. Drake (1998) has contended that a teacher is no longer necessarily the expert in the classroom; rather, he or she now models the lifelong learner that the students are encouraged to be. Therefore, there is a need to persuade teachers that a teaching career needs to face continuous change including curriculum change. They need good teacher networks, a systematic arrangement to work in teams and a collaborative culture may enhance teachers' capacity in integrated

curriculum planning. On teacher's part in curriculum reform, Cuban (1996) insists on gaining teachers' commitment to the purpose of reform, not only for designing administration policies, to minimize teacher effects from the curriculum. To implement a curriculum reform, teachers need to accept the new curriculum initiatives. It is not unusual for a teacher to accept curriculum integration but do something else in the classroom. Only through classroom observation can someone know if a teacher is implementing the curriculum initiative. It is only after teachers have accepted the rationale of curriculum integration that they are willing to sacrifice their time as to enhance the capacity to work for it. A curriculum change needs determination and patience and teacher is the key to curriculum change; otherwise, there will be more resistance to change. In sum, the public in Hong Kong had placed very high expectations on the teachers for cultivating student's abilities and all-round development. As such, for the future of Hong Kong society, it is vital whether or not teachers commit themselves by supporting the development of curriculum integration in schools.

### **Conclusion**

There is further research that needs to be done on the topic of implementation of integrated curriculum in Hong Kong. Generalization of the results of the present study may be limited by the choice of sampling, sample size, time factor and method of data processing. With regard to the limitation of the current study, possible research areas may be included for further study: whether curriculum integration would be different at different grade levels or by different approaches, type of schooling, and in schools located in different districts/regions of Hong Kong. Other possibilities may be the study of whether curriculum integration would be different for teachers of different experience, gender, training and expertise. Moreover, longitudinal studies of teams of teachers could be started from the onset in working with curriculum integration through the subsequent years.

Integrated learning restores meaning and relevance to the student's experience of schooling, transforming what in too many schools may be a disjointed series of subjects into a meaningfully integrated, holistic education that demonstrates to students how education applies to real life. The movement to integrate curricula in Hong Kong provides, hopefully, all students with the opportunities for constructing knowledge, developing generic skills and nurturing positive values and attitudes. This is necessary for preparing Hong Kong people for life-long learning, future employment and the challenges in the 21<sup>st</sup> century. However, Leung (2003) argues, there is no need for schools to rush to integrate everything in the curriculum and curriculum integration should not be implemented in schools without adequate preparation or support. For individual schools there should be a school policy, which caters for the common approaches to curriculum integration. Teachers may apply various approaches to integrated learning so as to help students extend their knowledge of the world. The critical factors for success are many. Nevertheless, the key factors should include the teachers' understanding of and support for the curriculum initiative, teachers' competence in teaching and assessment, further professional development of teachers, relief of teachers' stress, enhancement of teachers' capacity in curriculum planning, and finally collegial

team working in schools. On the challenges to integrated curriculum, Beane (1997, p.103) puts it, “While the gains are still relatively small, the challenges great, and the obstacles large, curriculum integration fares well today, and it will not go away.” Regarding teaching integrated curriculum in Hong Kong, there will, hopefully, be foreseeable benefits including more effective and worthwhile teaching, more coordination between regular and integrated learning catering for the needs of students. Based on teacher concerns on curriculum integration, therefore, findings of the present study may contribute to updating, strengthening and developing the relevant professional development programs by means of catering for the authentic challenges to and needs of teachers at the frontier in local context. The present study, finally, also provides critical insights regarding curriculum implementation for the policy makers.

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## Appendix 1

### Survey Questionnaire: Curriculum Integration in Primary Schools

(Strictly Confidential)

Please tick ( V ) the correct answer(s).

#### Section A: Some information about yourself

1. Gender:	Female: <b>78.6%</b> Male: <b>21.4%</b>
2. Teacher Training (Highest qualifications):	Teacher's Cert.: <b>53.5%</b> BEd or Degree: <b>45.6%</b> Others: <b>0.9%</b>
3. Years of primary school teaching:	0-5: <b>6.0%</b> 6-10: <b>42.7%</b> 11-15: <b>18.8%</b> 16-20: <b>6.0%</b> 21-25: <b>13.7%</b> 26-30: <b>7.7%</b> > 31: <b>5.1%</b>
4. Main teaching group:	Upper primary: <b>64.6%</b> Lower primary: <b>31.9%</b> Both: <b>3.5%</b>
5. Main teaching subject: (more than one choice)	Chinese: <b>47.9%</b> Maths.: <b>29.9%</b> Art: <b>9.4%</b> Music: <b>5.1%</b> PTH: <b>3.4%</b> English: <b>28.2%</b> General Studies: <b>11.1%</b> Physical Ed.: <b>5.1%</b> Computer: <b>5.1%</b> Others: <b>3.4%</b>
6. Teaching experience of integrated curriculum: (more than one choice)	Modular Approach within subjects: <b>54.7%</b> Cross-curricular Approach: <b>31.6%</b> Curriculum Integration Day/Week: <b>22.6%</b> Others: <b>3.5%</b>
7. Major Responsibility in school:	Subject Panel: <b>41.0%</b> Curriculum Development: <b>5.1%</b> PTA: <b>6.8%</b> Civic Education: <b>5.1%</b> Extra-curricular Activities: <b>16.2%</b> IT: <b>12.0%</b> Others: <b>17.9%</b>
8. Type of teaching school:	Bi-sessional: <b>59.8%</b> Whole-day: <b>40.2%</b>
9. School funding:	Public Sector: <b>100%</b> Private: <b>0%</b>
10. School district:	Kowloon: <b>26.5%</b> Hong Kong Island: <b>14.5%</b> New Territories: <b>59.0%</b>

**Section B:****Background****In the information-based era:**

	<i>Mean</i>	<i>SD</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
			<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
1. There are some overlaps among the subjects in the school curriculum.	2.02	0.473	9.4%	80.3%	9.4%	0.9%
<b>2. It is claimed that lateral coherence across some of the subjects needs to be developed.</b>	<b>1.86</b>	0.507	<b>19.7%</b>	<b>75.2%</b>	4.3%	0.9%
3. Strong subject boundaries are barriers to relating school curriculum to real-life.	2.41	0.559	1.7%	57.3%	39.3%	1.7%
4. It needs to re-organize the whole subject-based curriculum with curriculum integration.	2.30	0.647	7.7%	57.3%	32.5%	2.6%

**Section C:****Comparing the Traditional Subject Approach with the Cross****Curricular Approach:**

	<i>Mean</i>	<i>SD</i>	<i>Strongly Agree</i>	<i>Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>
			<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<b>1. It needs a longer testing period.</b>	<b>1.99</b>	0.500	<b>12.8%</b>	<b>75.2%</b>	12.0%	0%
2. It is easier to strengthen pupils' all-round development.	2.03	0.504	11.3%	74.8%	13.9%	0%
<b>3. It makes the linkage between learning in class and in real-life stronger.</b>	<b>1.99</b>	0.466	<b>11.2%</b>	<b>78.4%</b>	10.3%	0%
4. Pupils have better performance in traditional assessment.	2.41	0.528	1.7%	55.6%	42.7%	0%
5. It is easier for pupils to achieve <i>learning to learn</i> .	2.12	0.604	12.8%	62.4%	24.8%	0%
6. Be worth providing with more resources.	2.09	0.616	14.5%	61.5%	23.9%	0%
7. It meets the needs of the society.	2.04	0.517	11.2%	73.3%	15.5%	0%

**Section D:**

Regarding **teaching** an integrated curriculum:

	<i>Mean</i>	<i>SD</i>	<i>Strongly Agree</i>	<i>Disagree</i>	<i>Strongly Disagree</i>	
			<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>
<b>1. You would like to get more information</b>	<b>1.85</b>	0.515	<b>21.6%</b>	<b>71.6%</b>	<b>6.9%</b>	0%
2. You feel equipped to participate	2.11	0.571	9.5%	71.6%	17.2%	1.7%
3. You would like to work collaboratively with other teachers (e.g. team teaching)	2.12	0.480	6.1%	75.7%	18.3%	0%
4. You are no longer a subject specialist	2.37	0.566	3.4%	57.3%	38.5%	0.9%
<b>5. You are frustrated by heavy workload</b>	<b>1.68</b>	0.717	<b>46.2%</b>	<b>41.0%</b>	12.0%	0.9%

**Section E: Comparison**

1. Each of the 8 key learning areas is of **equal importance** for an integrated curriculum: Yes 86%      No 14%

If **NO**, the following **key learning areas** should be the **major part** of an integrated curriculum:

(Enter 1 to 8 where **1 is the most important item** while **8 is the least important item.**)

	<b>Mean</b>	<b>SD</b>	<b>Rank</b>
Physical education	6.63	1.310	7
<b>Chinese</b>	<b>1.69</b>	1.078	<b>1</b>
Science	5.13	1.784	5
Arts education	6.69	1.401	8
Technology education	5.81	1.167	6
<b>English</b>	<b>2.75</b>	1.571	<b>2</b>
Mathematics	3.50	1.317	3
Personal, social & humanities education	3.81	2.401	4

2. The **most difficult task** in teaching an integrated curriculum is:

(Enter 1 to 8 where **1 is the most difficult item** while **8 is the least difficult item.**)

	<b>Mean</b>	<b>SD</b>	<b>Rank</b>
Applying community resources	5.31	1.836	7
Outdoor Teaching	5.03	1.988	6
<b>Assessing student learning by various methods</b>	<b><u>3.00</u></b>	1.824	<b><u>1</u></b>
Preparing teaching plan collaboratively	3.83	2.143	4
Team teaching	3.78	1.892	3
Motivating student learning	7.03	1.398	8
Parents' cooperation	4.64	2.132	5
<b>Selecting themes for linking different subjects</b>	<b><u>3.40</u></b>	2.185	<b><u>2</u></b>

3. The **success of implementing** curriculum integration **mainly** depends on:

(Enter 1 to 7 where **1 is the most important item** while **7 is the least important item.**)

	<b>Mean</b>	<b>SD</b>	<b>Rank</b>
Team spirit among colleagues in schools	3.65	1.787	4
Awards to teachers (e.g. Public recognition of teachers' effort)	6.28	1.286	7
<b>Teachers' support for education reform</b>	<b><u>2.94</u></b>	1.665	<b><u>1</u></b>
Consistency in policy	3.31	1.913	3
A reform of existing public examination system	4.13	2.055	5
Further professional development of teachers	4.13	1.620	5
<b>Teachers' capacity in curriculum planning</b>	<b><u>3.15</u></b>	1.755	<b><u>2</u></b>

4. The kind of professional development in which **teachers benefit most** is:

(Enter 1 to 5 where **1 is the most important item** while **5 is the least important item.**)

	<b>Mean</b>	<b>SD</b>	<b>Rank</b>
Part-time in-service courses	4.34	0.982	5
Teachers work collaboratively to develop school-based curriculum	2.55	1.184	3
Inter-school sharing sessions	3.70	1.038	4
<b>School-based training with external support</b>	<b><u>2.22</u></b>	1.121	<b><u>2</u></b>
<b>Full-time block-release courses</b>	<b><u>2.08</u></b>	1.231	<b><u>1</u></b>