Research and Development Work on Quality Education Fund "Project Learning" Projects 「專題研習計劃」研究及發展工作

(2008-2009)

Executive Summary of Final Report

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Executive Summary of Final Report

This summary reports the major findings of the Research and Development Work on Quality Education Fund "Project Learning" Projects undertaken by the research team of the Centre for University and School Partnership (CUSP), Faculty of Education, the Chinese University of Hong Kong between August 2008 and June 2009.

1. Objectives

The objectives of this research are: (a) to sort out from the cluster of 63 QEF selected projects the good practices worthy of consolidation and promotion and (b) to develop educational resources in the form of printed and/or electronic materials for dissemination purposes.

2. Criteria for selecting the exemplary projects

12 outstanding projects are selected from the 63 project learning projects (Appendix I) for further investigation. Criteria of selection are derived mainly from the RE-AIM model and reference to Cuban's (1998) criteria for evaluating education reforms and innovations. A literature review of project learning is conducted to provide contextual insights for understanding project learning projects. These selection criteria include sustainability, targeted ability cultivation, process management, resources allocation, teacher professionalism, student input and extent of diffusion of experiences. The 12 projects are also selected to represent a full spectrum of educational institutions ranging from kindergarten, primary, secondary to tertiary.

3. Research Methodology

Questionnaire, in-depth structured interview and documentary analysis are employed to solicit both quantitative and qualitative data for investigating the good practices of the 12 selected exemplary projects. The three research methods are complimentary and triangulating, strengthening the credibility of the findings.

- 3.1 The documentary analysis of the 63 Project Learning projects completed between 1998-2006 contributes to a contextual understanding of these projects according to their nature, conduction period and grouping.
- 3.2 The questionnaire (Appendix II), consisting of 50 questions in Likert scale and covering six areas, namely, planning, human resources, organization, resources management, learning process, assessment and achievement, was completed by 44 projects (69.8%). Respondents were also asked to rank the first six areas to show how important these factors are perceived as conducive to successful implementation of project learning.

3.3 In-depth structured interviews (Appendix III) are conducted with 17 project planners/leaders and 26 implementers of the 12 selected exemplary projects (Appendix IV). The interviews solicit rich data from the informants on the objectives of the projects, the implementation process, the outcomes of the projects and, most importantly, what they value as keys of success and rooms for further improvement. Interview dialogues are transcribed and categorized for triangulation with the questionnaire analysis.

4. Major Findings

4.1 Key to Success in Implementing Project Learning in Schools

By integrating the rating analysis (mean score, standard deviation) and rank ordering of the questionnaire questions (Appendix V) and the interview data, 8 evident factors have emerged as key to success in implementing Project Learning in schools. These 8 factors are grouped into 3 categories (Initiation, Implementation and Institutionalization) and elaborated below.

I. Initiation

A. Positive External Stimulus

While the Education Reform starting in 1998 sparkled the paradigm shift of teaching and learning, with project learning as one of the four key tasks, the Quality Education Fund has provided the timely fiscal resources as incentive and encouragement for those schools wishing to take the reform journey, especially at the early stage. QEF has also enabled and facilitated tertiary professional agents to work with schools as partners in developing project learning. This is a very crucial factor fully acknowledged by most of the exemplary projects.

B. High Intrinsic Motivation of Teachers

The 12 outstanding exemplary projects are all initiated by school teachers with high motivation of experiencing the paradigm shift of teaching learning through project learning projects. With such clear vision and desire, the planners and implementers quickly form a shared vision of learning-by-doing, sharing extra burdens, seeking professional inputs, risk-taking for the benefit of their children. They become pioneers in project learning although they are not yet fully equipped with the knowledge and skills of project learning. Nevertheless, it is exactly this self-acknowledged deficiency that turns into a ferment of trial and learning, and an impetus of overcoming difficulties.

II. Implementation

C. Strong Core Leadership

In all the exemplary projects there are leaders who initiate the project and collaborate with peers to move on. These leaders have clear objectives,

perseverance, good human relationship and planning skills all of which enable the whole team to become a cohesive core leadership. The core team is empowered by the school authority to undertake the project, and within the team there are good division of labor, sharing of responsibilities and experiences. Peer relationship of teachers is outstandingly strong in the exemplary projects. Team members are quick to summarize experiences for the next phase of work, and take concerted efforts to overcome various obstacles.

D. Clear Planning and Vision

Clear planning and direction are essential for implementing project learning as an innovation. Although the 12 exemplary projects take different forms and develop in different scopes and levels, it is evident that the core leadership has a very focused vision, that is, enabling their pupils to become self-regulated, independent enquirers and collaborative learners according to the genuine rationales of project learning. For this purpose, very effective administrative arrangements are being designed, ranging from well designed schedules to learning logs for teachers and pupils.

E. School-based Adaptation Strategy

Whereas project learning as an innovation exhibits distinctive intrinsic attributes and methodology, the mode of operation can be amorphous depending on the context of implementation. The 12 exemplary projects well illustrate this diversities as a school-based adaptation strategy is adopted. Project learning projects can be delivered through the formal school curriculum as single subject, cross subjects, cross key learning areas and even interdisciplinary based. They can be conducted within the school setting or and outside the school in specific social (community issues) and physical settings (field visits, farms).

F. Vigorous Evaluation Mechanism

When project learning takes different forms, it is crucial to have a strong evaluation mechanism which ensures the attributes of project learning being genuinely acquired, as well as providing assessment for learning feedbacks for monitoring continuous development. In all the exemplary project, there is a central feature that an effective evaluation mechanism is devised to monitor and evaluate the effectiveness of implementation. This mechanism includes students' self reflection, teachers' self reflection, classroom observation, log book of work and various kinds of rubrics for self evaluation, peer evaluation and teacher's evaluation of pupils' end products.

III. Institutionalization

G. Sufficient Administrative Supports

All the 12 exemplary projects acknowledge the importance of the support of the principal who provides various administrative facilitations to enable the successful implementation of project learning. These facilitations include motivational elements such as empowerment, trust, spiritual encouragement which are pivotal in creating a positive climate for innovation. On the other hand, there are concrete administrative measures such as timetable readjustment, special sessions for teacher workshops, time release for training and insurance arrangements for pupils going into field works.

H. Effective Utilization of Resources

The QEF itself is an important enabling source of resources for schools to implement project learning, giving the schools additional manpower and fiscal resources for soliciting professional inputs or purchasing needed facilities, such as computers, setting IT laboratory. At the same time the exemplar projects have utilized existing and additional resources effectively, such as using the cyber platform for searching information, or mobilizing parents, alumi and community resources.

4.2 Benefits of Implementing Project Learning in Schools

This study reveals strong evidence of very positive benefits of project learning in teachers and pupils.

4.2.1 For pupils

The obvious benefits for pupils include: (a) pleasurable learning experiences, (b) improvement of pupils' generic skills, (c) fostering positive learning attitude of pupils, and (d) shifting to self-regulated, independent and collaborative enquiry.

4.2.2 For Teachers

Teacher respondents in this research fully acknowledge the following gains from implementing project learning: (a) widening of horizons (b) becoming a learner (c) better understanding or pupils, (d) fostering a collaborative peer culture of teachers (e) shifting to a facilitator, coach teacher role, (f) greater awareness of using evaluation mechanism to monitor quality.

4.2.3 For Schools

Schools benefit from project learning in two aspects: (a) enhancement of learning atmosphere and motivation; (b) fostering professional community.

5. The Way Forward

This research is a retrospective analysis of the valuable experiences of 63 QEF Project learning projects conducted within the period 1998 - 2006, but over 50% of which undertaken in the 1998-2001 period. These experiences have illustrated essential good practices which can be diffused to other schools. At the same time the research has revealed several concerns:

- 5.1 Project learning has to be perceived by teachers as paradigm shift of teaching and learning, and be realized and internalized by both teaches and pupils through curriculum implementation in diversified approaches. Without such recognition, project learning could be taken as an additional burden consuming extra resources and energy.
- 5.2 A holistic approach should be adopted in implementing project learning so that the paradigm shift can be even out among teachers across different levels of schooling. This requires holistic planning and effective deployment of resources both within and outside schools.
- 5.3 Project learning is now a familiarized practice in most schools in Hong Kong. Yet there is still a need to disseminate good practices so as to enhance the quality of project learning, and to cut short the learning path of schools.