

Learning Study in Hong Kong

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The context leading to Learning Study in Hong Kong

The project to evaluate the Target Oriented Curriculum (TOC) 1995-1998

- 500 classroom observations
- Teachers were able to bring about better student learning despite using traditional methods

The project to identify examples of 'good language lessons' (funded by SCOLAR) 1998-2000

Research design:

- Compare two or three lessons with the same content of teaching
- Diagnostic tests
- Student interviews
- Using the theory of Variation as an analytic framework

Finding:

- The object of learning, critical aspects and pattern of variation mattered.
- How can teachers be sensitized to these?

The Catering for Individual Differences – Building on Variation (CID(v)) Project 2000-2003

- Testing the Theory of Variation
- Develop a robust methodology for it to be replicated with minimum support
- Develop practice and insights

Conceptual framework of Learning Study

- Focus on the object of learning – through iterative development as a result of critical aspects discovered.
- Recognition of intended, enacted and lived object of learning.
- Learning as acquiring different ways of seeing
- Building on three types of variations

V1. Variation in terms of students' understanding of what is to be taught

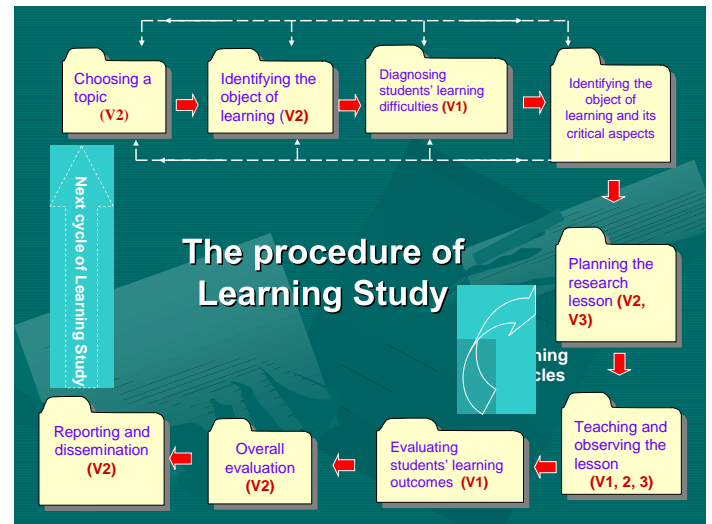
- Interview students to find out their ways of seeing the object of learning
- Set pre-test items
- Research literature

V2. Variation in the teachers' ways of dealing with particular topics

- Meetings to discuss the object of learning and its critical aspects
- Observation in cycles and modification of lesson plan
- Evaluation of each cycle, comparing teaching acts and student learning outcomes
- Presentation in internal meetings and public seminars

V3. Variation as a guiding principle of pedagogical design

- Develop patterns of variation
- Design teaching activities based on these patterns
- Analyse the enactment and compare with student learning outcomes



Three phases of development

Phase One: Exploration and theory development (2000-2003)

- By 2003, a total of 29 Learning Studies were carried out in the subjects of Mathematics, Chinese language, General Studies, and English language in the two project schools. Of these, 27 have complete data sets of pre-test and post-test.

CID(v) Project:

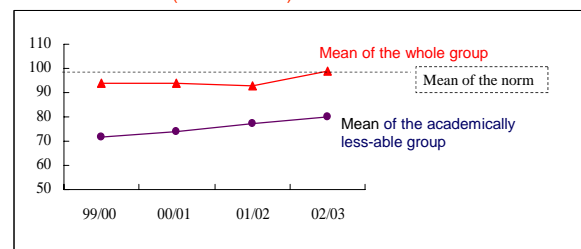
Comparison between the pre- and post- test results

High-score group: students whose scores are above or equal to the 3rd quartile
Low-score group: students whose scores are below or equal to the 1st quartile

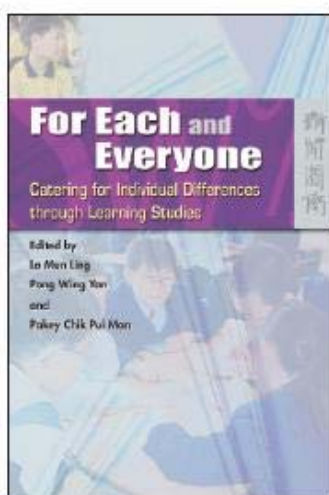
Results of the 1-tail paired t-test, p<0.05 (i.e. 95% confidence level)	No. of Learning Studies (total=27)
1. Significant gain in the mean score of the whole group in the post-test	24
2. Significant change (gain/maintain) in the mean score of the high-score group in the post-test	21 (16/5)
3. Significant gain in the mean score of the low-score group in the post-test	27
4. Gain in the mean score of the low-score group is greater than that of the high-score group	25

No. of Learning Studies that shows 1, 2, 3 & 4 : 23

School A - HKAT (Mathematics) mean standardized scores



Topic of the research lesson	00/01	01/02	02/03
	<ul style="list-style-type: none"> • Number: Unit and Unitising of fractions • Shapes & Space: Area and Perimeter 	<ul style="list-style-type: none"> • Shape and Space: Area of parallelograms • Volume of cube and cuboid 	<ul style="list-style-type: none"> • Measures: Speed



Phase Two: Consolidation, development and dissemination (2001-2004)

- PIPS and STEM projects
- Learning Study was introduced to over 40 other primary schools and 50 secondary schools, covering research lessons in the areas of Chinese language, English language, Mathematics, General Studies, and cultural subjects like Visual Art, Physical Education, Music and Design and Technology.

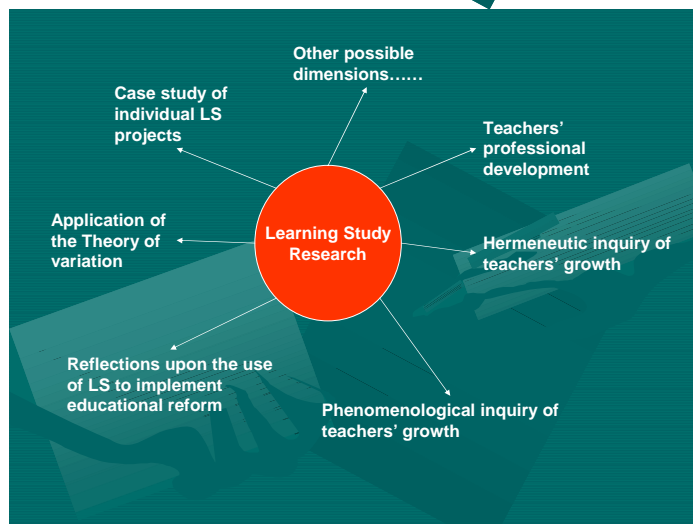
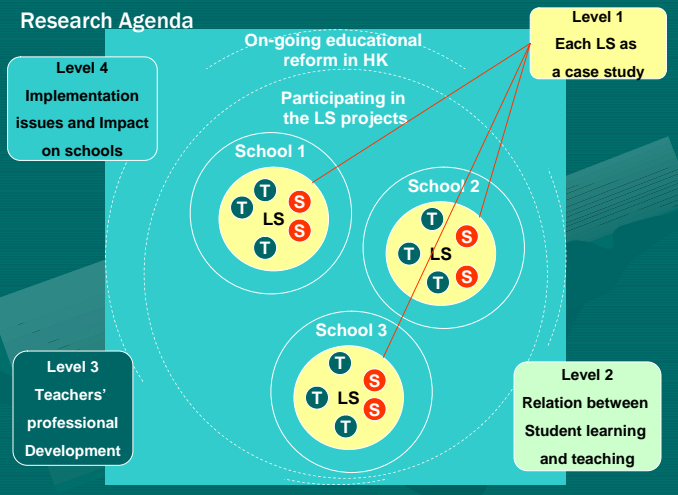
Among other changes, the most important ones include:

- Creating time
- Ensuring better understanding by intensive courses
- Using exemplars. 77 seminars were held and attended by 5,385 teachers between Feb 2002 and Dec 2003,.
- Many high quality teacher educators joined the research team. In the initial stage, the TDCs worked in pairs so that they were able to support each other.
- Monitoring - proactively solving any foreseeable problems as well as monitoring the quality of these studies.
- Involving teachers in the analysis of data.

Phase Three: Integrating Learning Study into the educational system (2004-2007)

- Making Learning Study an essential component of mentoring in schools
- As a core module in the B.Ed. curriculum
- Developed a M.Ed. specialism
- CDSPE has been renamed Centre for Learning-study and School Partnership
- The VITAL project
- Systematic publication and the development of an online data-base and supporting system are underway.

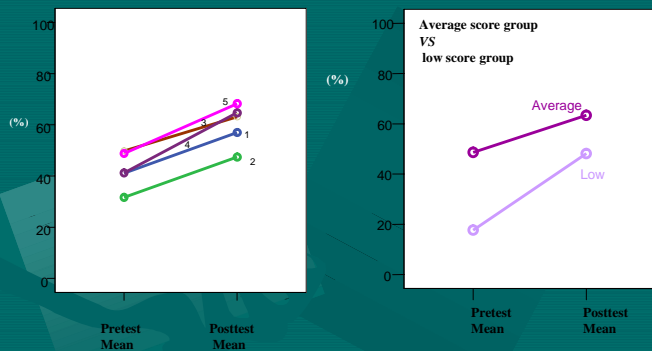
Research Agenda



Students' learning outcomes

VITAL Project

VL007 - F1 Chinese



Summary of pre-test & post-test results

	Critical aspects	
	I linking physical, conceptual and representation	II Interpretation of Reaction curve
4A (pre-test)	30%	15%
4A (post-test)	39% (+9%)	66% (+51%)
4B (pre-test)	20%	44%
4B (post-test)	72%(+52%)	70% (+26%)

4B

Interpretation of rate curve

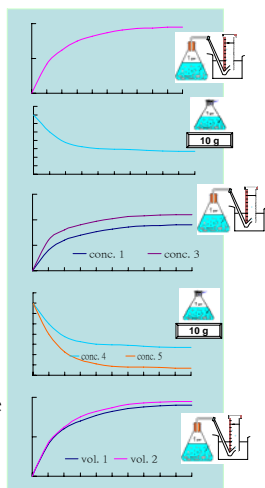
- Experimental set up 1
- Experimental set up 2

Effect of volume on rate

- Experimental set up 1
- Experimental set up 2

Effect of concentration on rate

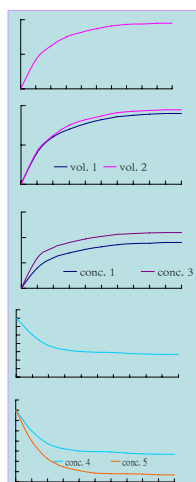
- Experimental set up 1
- Experimental set up 2



4A

Experimental set up 1

- Interpretation of rate at each point
- Effect of concentration
- Effect of volume



Experimental set up 2

- Interpretation of rate at each point
- Effect of concentration
- Effect of volume

Factors favouring the development of Learning Study in Hong Kong

1. Its conceptual framework and methodology

- Theory and practice are one
- Is based on a respect for teachers, preserves individuality as well as encourages collaboration
- Empower teachers and confirm that teaching is a professional activity

2. Empower teachers by **challenging** some taken for granted assumptions which make teachers feel helpless



- A student's innate ability limits what he/she can learn
- Teaching excellence is a gift and teachers are born
- Some topics cannot be learnt



3. Its Positioning within the educational and cultural context

- Partnership between schools, the Hong Kong Institute of Education and the Education and Manpower Bureau
- The dissemination strategies employed

Conclusion

To make Learning Study sustainable, a number of challenges have to be met:

- Embedding it in the teaching culture by making it a core component of
 - pre-service programmes
 - mentoring programme
 - teachers' continuing professional development

- Infrastructure and policy support for it to be institutionalized – create time and space for teachers
- creation of learning communities in schools and between schools for teachers' sharing and continuing development.
- Stable conditions are essential for sustainable growth
- The future of Learning Study rests upon how it can continue to make significant contributions to pre-service teacher education, teachers' continuing development, research and development in education, and also to improving the status of the profession as a whole.

Thank you