

**MODIFIED LESSON STUDY FOR TEACHING PRACTICUM**

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### Abstract

Supervising, observing and receiving feedbacks from different batches of interns about the existing teaching practicum (TP) seems to reveal that they are stressed by the demands and motivated by the need to impress to do well. The primary aims of augmenting the course work, developing personal intervention strategies and understanding the wider role in the Special Education school community seems to be overshadowed by the demands to perform and impress. Supervisors are “seen” to be assessors and evaluators of the intern performance rather than coaches and mentors to nurture and enculturate them into the profession. The existing study is an action research to address the negative perception by redesigning the pedagogy of the TP. We have attempted a bold move by introducing the concept of Lesson Study, which originated from Japan (Fernandez & Yoshida, 2004), to facilitate getting teachers together to study the processes of teaching and learning in classrooms and then devise ways to improve them collectively with the intern (Chia & Kee, 2010). It is envisaged that the TP will not only hone the pedagogical skills and content knowledge of teachers but also improve the knowledge base of the teaching profession (Fernandez & Yoshida, 2004). Classroom life is full of habits and routines deeply rooted in culture, which remain invisible until they are viewed from a different angle or in new context (Stepanek, et al., 2007). This paper reports the processes and challenges of using Lesson Study as the overarching framework for the TP. The current study involves three special schools in Singapore, where the results and collated feedbacks of 58 interns together with the school coaches and coach-mentors are being discussed. It is hoped that the current study will provide a potential model for understanding the processes and products of using Lesson Study as the overarching framework for TP.

## INTRODUCTION

The existing training programs for special educators serves to communicate competency related knowledge and skills which is pre-determined that the learner can replicate and repeat in predictable environment (Bhoynub, Hurley, Neilson, Ramsay & Smith, 2010). The educational approach adopted is either pedagogy or andragogy, which are teacher-centric approaches.

However, as the environments and students of special educators in the different schools are diverse and themed with complexity and unpredictability, where schools have different cultural affiliations and philosophical inclinations, interns need the TP to provide an educational approach that addresses their need to apply with adaptations and dynamism, what they have learnt effectively. In addition, reflections from personal experiences of both authors supervising past TPs, reveal interns experiencing and reporting stress to different degrees as well as the fear of failure.

Perhaps, it is the way some co-operating teachers (CT), school coordinating mentors (SCM) or even supervisors, may conceive their role to be mainly evaluators rather than coaches and mentors to initiate their interns to step into the “real shoes” of practitioners. As every intern is an important human resource with heavy investment of resources, every effort should be made to help the intern succeed.

In order to addresses the surfaced issues, both authors have conceived a modified lesson study approach as the educational approach to adopt during the recent TP in three special schools (Chia & Kee, 2010, 2011). The TP serves to augment course work that interns have undergone by providing opportunities for interns “to develop their personal intervention strategies and their understanding of their wider role in the special education school community” (Chia & Kee, 2010, p. 1).

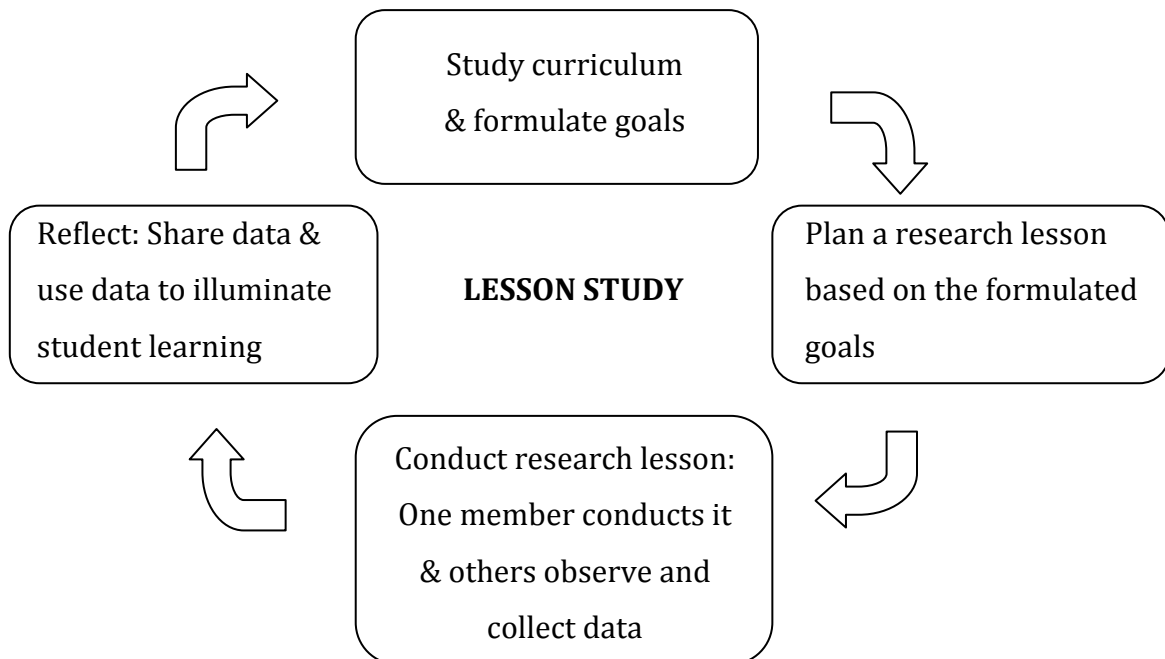
Moreover, the TP has been redesigned to be a process of formative assessment rather than summative assessment where all stakeholders of the intern are responsible for the intern learning during the TP and are required to intervene and coach intern when needed to succeed in the role as teachers. The assessment role is more on assessing the willingness and degree of learning of the intern from the coaching, guidance and direction of the experienced CTs, SCMs and supervisors. The Lesson Study approach needs to be modified as the students involved are not typically developing and will need additional support. A comparison has been made and tabled in our book for the practicum (Chia & Kee, 2010, pp. 8-10). The current research is a participative action research to document the process, challenges and the findings from redesigning the pedagogy of the TP.

## LITERATURE REVIEW

### What is Lesson Study?

Lesson Study, whose unique humble beginning in Japan, was a result of a concerted effort initiated by a group of Japanese teachers to improve their pedagogy (Fernandez, 2002). Lesson Study as a pedagogic approach caters to students who have yet to grasp the full understanding of subject matter that is being taught or to be learnt through instructional improvement. Lewis (2011) has identified four main phases in Lesson Study cycle as follow (see Figure 1):

*Figure 1. The Lesson Study Cycle*



The underlying practice of Lesson Study as pedagogy is the idea that teachers can best learn from and improve their practice by observing how other teachers teach. According to Stephens and Isoda (2007), “there is an expectation that teachers who have developed deep understanding of and skill in subject matter pedagogy should be

encouraged to share their knowledge and experience with colleagues. While the focus appears to be on the teacher, the final focus is on the cultivation of students' interest and on the quality of their learning" (p. xvi). With regular cycles of refinement that constitute the core of Lesson Study, it only makes sense in terms of quality of improvement in student's learning (Chia & Kee, 2010, 2011; Stephens & Isoda, 2007).

In brief, Lesson Study is an approach to professional development whereby teachers collaborate with one another to develop a lesson plan, teach and observe the lesson as well as to collect data on student learning, and also use their observations to refine their lesson (Stepanek, Appel, Leong, Mangan, & Mitchell, 2007). It is an approach to professional development of teachers. (Stepanek, Appel, Leong, Mangan, & Mitchell, 2007).

Lesson Study "is a process rather than a product – a mean through which teachers continuously engage in learning more about best or effective pedagogical practices in order to improve the student learning outcomes" (Chia & Kee, 2010, p.2).

### **Why Lesson Study?**

The basis of the practice of Lesson Study "is the idea that teachers can best learn from and improve their practice by seeing other teachers teach." (Isoda, Stephens, Ohara & Miyakawa, 2007, p. xvi).

Teaching is a cultural activity. We learn how to teach indirectly, through years of participation in classroom life, and we are largely unaware of some of the most widespread attributes of teaching in our own culture. The fact that teaching is a cultural activity explains why teaching has been so resistant to change. But recognizing the cultural nature of teaching gives new insights into what we need to do if we wish to improve it. (Stigler & Herbert, 1999, p.11)

Moreover, teachers who have developed deep understanding of and skill in subject matter pedagogy should be encouraged to share their knowledge and experience with colleagues (Isoda et al., 2007). Lesson Study provides a platform for this sharing where the tacit knowledge may have a positive multiplier effect on effectiveness of other teachers as they deliberate on the new or proven ideas in context.

Lesson Study also provides the opportunity for educators to focus on cultivation of students' interest as well as quality of their own teaching through learning from objective and constructive comments from colleagues, who observed the lesson and gleaned useful insights from their perspectives and experiences. Cycles of refinement will eventually lead to professional development of expertise. (Isoda et al., 2007).

### **Challenges in implementing Lesson Study**

Major commitment of time and resources for teachers to meet is possible only with school management support endorsement and promotion (Isoda et al., 2007). Experienced teachers in Japan are expected to lead Lesson Study activities in their own school as well as others held outside own school. A leading teacher in Japan carries recognition of high mark of professionalism.

Perhaps, an emancipatory leadership involving cultural change where the true leadership starts on the inside with a servant heart, then moves outwards to serve others (Blanchard, Hybels, & Hodges, 1999) may be necessary for lasting cultural change. The perception of the need stems from the requirement of all involved in Lesson Study to honestly share with intention to build with constructive means and sensitivity. Collaboration with the intention of honestly helping others rather than competition where the intention is to have an edge over others should be the order of the day.

### **Other Educational Approaches**

Interns need a high quality practice-based learning. Researching for such an educational approach surface the challenges faced also by the nursing profession where undergraduate nurses have to be prepared to face complex, unpredictable and challenging environments of hospitals requiring a practice based learning (Bhojrub, et al., 2010). Their search revealed that “the construct of heutagogy as being a potentially highly congruent framework for undergraduate pre-registration practice-based learning” (Bhojrub, et al., 2010, p. 322). Canning and Callan (2010) found heutagogy as spirals of reflection that empowers learners in higher education in self-directed study where students are able to demonstrate the following (p.80):

- Being self-aware;
- Being able to articulate feelings, experiences and ideas;
- Engaging in shared discussion with others;
- Investigating appropriate academic sources in developing their own ‘theories’/knowledge; and
- Being confident in their study skills and able to access the facilities of the higher educational institution.

On the other hand, Eberle (2009) shared the finding that heutagogy is the answer to meet the challenges of competition to make e-learning meaningful and worth the students money, time and effort by allowing the student to be self-directed and learn and apply what they need and want to know. The research by Aston and Newman (2006) revealed that “heutagogy prepares students for the self-determined lifelong learning which is essential for survival in a 21st century world” (p. 825).

The term heutagogy, coined by Chris Kenyon (cited in Hase & Kenyon, 2007), is derived from the ancient Greek for 'self' with some adjustments and the 'gogy' or 'gogia' added. The term arose because of the conceptual debate with Steward Hase (cited in Hase & Kenyon, 2007) that knowledge and skills or competencies acquired do not equate to learning at a deeper cognitive level as existing curricula were very teacher-centric with little opportunity for any real involvement at a micro or even macro level by the learner.

Heutagogy is concerned with the need for immediacy of learning to meet learner perceived needs. The educational approach aims to provide holistic development equipping learner with an independent capability to question one's values and assumptions, examine the critical role of the system-environment interface and knowing how to learn (Kenyon & Hase, 2001).

Heutagogy is the study of self-determined/self-directed learning involving mature learners (Canning, 2010; Kenyon & Hase, 2001). It works based on the understanding that given the right environment, people want to learn and have a natural inclination to do so throughout their life. It is a student-centric approach with five key hypothesis (Kenyon & Hase, 2001, p. 3):

- We cannot teach another person directly: we can only facilitate learning;
- People learn significantly only those things that they perceive as being involved in the maintenance or enhancement of the structure of self;
- Experience, which if assimilated would involve a change in the organization of self, tends to be resisted through denial or distortion of symbolization and the structure and organization of self appear to become more rigid under threat;

- Experience which is perceived as inconsistent with the self can only be assimilated if the current organization of self is relaxed and expanded to include it; and
- The educational system which most effectively promotes significant learning is one in which threat to the self, as learner, is reduced to a minimum.

Heutagogy recognizes the need to address rapid changes and information explosion through flexibility in curriculum, knowledge sharing and not knowledge hoarding and creating new knowledge from existing experience (Aston & Newman, 2006).

## **METHODS**

### **Overall Approach and Rationale**

This study aims to implement Modified Lesson Study Approach (see Chia & Kee, 2010, 2011, for more detail) as the educational approach for TP. The research methodology selected is participatory action research (Phelps & Hase, 2002) with the researcher as active participant as the environment in which the interns will operate is complex and unpredictable (e.g., school culture, diverse student behaviour and needs, diverse supervisor background, strengths and weaknesses)

### **Statement of Purpose**

The purpose of the research is to investigate the effectiveness of the Modified Lesson Study Approach as an educational approach for the TP.

### **Research Questions (RQ)**

RQ1. What is the effectiveness of the Modified Lesson Study Approach in improving the lesson planning of interns?

RQ2. What is the effectiveness of the Modified Lesson Study Approach in improving the lesson presentation of interns?

RQ3. How has the mindset of the interns changed in response to the TP in terms of lesson planning?

### **Participants**

The total number of interns is fifty-eight. Total of six coach-mentors were involved. They were either working directly in the university or professionals working in private sector such as educational psychologist or allied therapists. Schools will also appoint their own coaches for the interns.

### **Planned Program for two months**

The approach was implemented in three special education schools over two months in 2010. The deliverables for the intern are as follows:

- Two case history summaries
- Two Individualized lesson plans,
- Two lesson plans
- Two revised lesson plans
- Two reflective journal entries

### **Procedures**

Data collected will be quantitative from the results of assessment instruments and also qualitative from the reflective journals. Significance level will be set at alpha level of .05 using paired t-test for each participant. The reflections of will be analyzed using an informal approach as in Seale's (1998) study where the findings serves to complement the quantitative findings (Perakyla, 2005).

### **Instruments**

The following marking rubrics used to assess the interns are also used for data collection:

- Marking rubrics for first lesson plan
- Marking rubrics for revised lesson plan
- Marking rubrics for first lesson presentation
- Marking rubrics for seocnd lesson plan
- Marking rubrics for revised lesson plan
- Marking rubrics second lesson presentation

## RESULTS

### Quantitative Data Analysis

RQ1. What is the effectiveness of the Modified Lesson Study Approach in improving the lesson planning of interns?

The paired t-test between the first lesson plan and the revised first lesson plan assessment scores revealed significant differences ( $p=.000$ , See Table 2). The correlation between the scores also showed significant correlation implying that interns did learn from the process of Lesson Study ( $\alpha=0.958$ ,  $p=0.000$ , See Table 3).

The paired t-test between the second lesson plan and the revised second lesson plan assessment scores also revealed significant differences ( $p=.000$ , See Table 2). The scores also showed significant correlation implying that the interns did learn from the process of Lesson Study ( $\alpha=0.946$ ,  $p=0.000$ , See Table 3).

*Table 1. Means and standard deviations of results of assessment*

	Mean	Standard Deviation	N
First Lesson Plan	68.028	9.163	58
Revised First Lesson Plan	70.022	9.4169	58
Second Lesson Plan	70.69	8.801	58
Revised Second Lesson Plan	72.381	9.0264	58
First Lesson Presentation	67.603	10.5122	58
Second Lesson Presentation	70.647	9.1148	58

Table 2. Paired t-test

	Mean	S.D.	t	d.f.	Sig (2-tailed)
Pair 1 : First_LP-First_R_LP	-1.9935	2.7091	-5.604	57	.000
Pair 2 : Second_LP-Second_R_LP	-1.6918	2.9269	-4.402	57	.000
Pair 3 : FirstPresent-Second Present	-3.0431	8.0406	-2.882	57	.006

Table 3. Paired Correlations

	N	Correlation	Sig.
Pair 1 : First_LP-First_R_LP	57	.958	.000
Pair 2 : Second_LP-Second_R_LP	57	.946	.000
Pair 3 : FirstPresent-Second Present	57	.673	.000

### **Reflective Journal (Common Themes)**

The common themes or categories surfaced are represented by the voices of interns (Atkinson & Rosiek, 2009).

***Sensitized on the importance of examining processes involved in the lesson.***

Example 1:

“The two teaching practicum sessions have been very insightful for me. Even though I have been writing lesson plans. I normally wrote them in a general way, without many details. I realized that a good lesson plan should include the sequential activities with guided questions and anticipated students’ responses.”

Example 2:

“This introductory chapter on symmetry is one that exposes pupils to the various aspects of symmetry. Pupils should be given a wide perspective of the idea of symmetry and to be allowed to explore more in terms of hands-on activity. One line of symmetry should be introduced on a figure at one time for clarity of concept. Then they would slowly be guided to develop a more holistic view of symmetry and understand its importance in our daily lives.”

***Importance of details in preparation (e.g. documenting definitions, verified appropriate sequence of steps and preparation needed)***

Example 1:

“Instead of getting the students to measure their friends body part, which can be inaccurate, I could put up a picture of a body part to be measured instead.”

Example 2:

“Definitions of the concept or subject matter taught should also be in the lesson plan as it could let the teacher focus on the lesson more effectively. Listing our the work plan for the particular lesson had not been a consistent practice on my part and I

intend to discipline myself to present my aims and list of activities visually so the students can keep track of the learning process and what kind of learning experiences can be expected from them”

Example 3:

“Worksheets could have the questions to so that students could link questions to answers and use it for revision at another time.”

Example 4:

“Visual clarity and relevance is important and not just for the sake of using videos. Over reliance on suggested procedure as described in text without the practical experience of doing the demonstration. Teacher needs to test out the activity prior to lesson to make pre-lesson preparations if necessary.”

### ***Planning Thinking Time***

Example 1:

“Questions could be reduced so that students could have time to reflect on questions as they did them.”

Example 2:

“Teacher to allow time for students to understand and practice on each concept before moving on to the next, so as to achieve the lesson objectives that were set. Additional scaffolding will also help students achieve success.”

***Development of Reflexive Pedagogy.***

Example 1:

“A proper and clear recap or summary at the end of the lesson plan can help me know whether my students had understood what was taught on that day. It is also important that I refer back to my lesson objectives and check whether the students had achieved the goals I set. Then I can consider my teaching is meaningful to my students’ learning.”

Example 2:

“For a 2-period lesson, I would omit out the group activity but still retain the writing of Maths journal. This is so because the group activity involves students to present their group findings after applying the concept of finding duration. More time is required for students to complete the 3 tasks independently before discussing as a group. Ample opportunities should also be provided to all students to present their group findings. The group activity can be carried out in the next Maths lesson.”

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