

Small-Class Teaching: Integrated Learning and Teacher Leadership

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Abstract

Based on the recognized status of the Hong Kong school system indicated in international studies, facilitating students with quality Integrated Learning (IL) is the crucial pedagogy for a new subject entitled Liberal Studies (LS) which has been implemented in secondary education in Hong Kong since 2009. This study uses case studies and semi-structured interviews of novice and experienced teachers to investigate the concerns and work of teachers in Small-Class Teaching (SCT) for IL in LS and explores how teacher leadership may help in terms of classroom context, learning community, improved practice, and outcome achievement. The findings reveal the common and diversified ideas and practices regarding SCT for IL in LS, which may provide valuable insights into teacher leadership for teachers and policy makers across the world.

Keywords

small class teaching, integrated learning, liberal studies, teacher leadership, secondary education

1. Introduction

A large-scale international study entitled “How the world’s most improved school systems keep getting better” investigates several international assessments, such as International Mathematics and Science Study, Program for International Student Assessment, and Progress in International Reading Literacy Study (Mourshed et al., 2010). The study examines 20 improved school systems, including that in Hong Kong and the findings indicate that the Hong Kong school system is regarded as “sustained improver” and has a “good to great” performance. This classification reveals that the school system focuses on encouraging teaching and that leadership is a full-fledged profession.

The New Senior Secondary (NSS) Liberal Studies (LS) curriculum is one of the typical examples of educational initiatives in Hong Kong school system; it has been implemented since 2009. The interconnectedness of learning in the NSS LS curriculum has been highlighted with emphasis on linkages in learning within and beyond the subject. Integrated Learning (IL) has been consequently

identified as a key feature of LS through the following practices:

- 1) Conducting an Independent Enquiry Study (IES) that integrates student knowledge acquired from the three areas of study and enhances their abilities to generally synthesize knowledge;
- 2) Connecting student knowledge and concepts across different disciplines;
- 3) Expanding student perspectives beyond single disciplines;
- 4) Studying contemporary events beyond the scope of single disciplines (Curriculum Development Council and Hong Kong Examinations and Assessment Authority, 2007).

Facilitating students with quality IL in Small-Class Teaching (SCT) (Blatchford, Bassett, & Brown, 2011) is a crucial teaching pedagogy for LS. However, numerous studies have highlighted SCT as an effective learning strategy for teaching (e.g., Blatchford et al., 2011; Graue & Rauscher, 2009; Scottish, 2008; Wilson, 2006). In light of this setting and theoretical background, the current study seeks to identify the concerns of teachers in SCT for IL in LS and ascertain whether teacher leadership, as the classification revealed by the abovementioned international study, could enhance SCT for IL in LS.

2. Literature Review

2.1 Significance of Integrated Learning in New Senior Secondary Liberal Studies Curriculum

The NSS LS curriculum comprises three areas of study, namely, Self- and Personal Development, Society and Culture, and Science, Technology, and the Environment. The IES further integrates knowledge acquired from these areas of study and generally enhances the ability to synthesize knowledge. Relevant literature (Beane, 1997; Drake, 1998; Jacobs, 1989, 1997) advocates IL that reflects real-life and real-world situations; involves wholeness and unity, rather than the separation and fragmentation of knowledge; provides a holistic view of individual subject areas; cultivates teacher-student collaboration; and creates opportunities and contexts for students to realize connections in learning. Therefore, the NSS LS is a response to the needs of the Hong Kong community, which requires a cross-curricular learning opportunity for all senior secondary students and a curriculum organization that complements other NSS subjects to maintain academic excellence and broaden perspectives, thus allowing learning to connect more closely to real-life situations (CDC & HKEAA, 2007). LS interactively borrows knowledge and perspectives from a range of subjects to enrich its study, and issues are selected to highlight the interconnectedness of learning, with emphasis on linkages in learning within and beyond the subject.

2.2 International Perspectives of Small-Class Teaching for Integrated Learning in Liberal Studies

Australia: In the study on the behaviors, interactions, and perceptions of junior high school students in small-group learning, Gillies (2003) reveals that Australian junior high school students benefit from participating in structured, cooperative learning experiences. However, he argues that further research should investigate the effect of task structure that requires students to share intellectual and material resources.

United Kingdom: Wilson (2006) and the Scottish (2008) state that the research by the Scottish Council

for Research in Education Centre reports that students generally benefit from class size reduction. The research examines more than 1,000 international studies conducted from 1980 to 2006 and focuses on class size and student learning. These studies highlight the importance of pedagogical concerns in a small class. Moreover, Baines, Blatchford, and Kutnick (2009) propose a series of basic forms of group work and structured/complex forms of group work for open-ended learning projects.

United States: Robertson and Kagan (1996) argue that an activity-based approach in small cooperative learning groups is a simple and effective IL approach. According to Armstead et al. (2010), the smaller learning community concept in the United States requires small, interdisciplinary teaching and learning teams, rigorous and relevant curriculum and instruction, and focus on inclusive programming and inclusive classroom practices. Furthermore, they reveal the numerous benefits of IL in small cooperative groups as follows:

- Capitalizes on student interest;
- Allows students to explore hidden connections;
- Prepares students to live and work in an interdependent world;
- Links new knowledge with prior experience (scaffolding);
- Provides success opportunities for multiple intelligences;
- Creates lifelong learners;
- Promotes positive attitudes.

Hong Kong: Galton and Pell (2009) investigate SCT in local schools in Hong Kong for four years and cite the challenges to the future development of SCT, including the following:

- Establishing “learning circles”—inter-school sharing across subjects and intra-school sharing around pedagogic issues;
- Increasing the use of pair/group work, peer tutoring, and flexible grouping strategies;
- Focusing on sophisticated teaching approaches, such as group work, to ensure the continuous professional development of teachers.

Furthermore, Leung (2009, 2011, and 2012) argues that teachers face challenges in LS curriculum integration in Hong Kong; nevertheless, students continue to benefit from a cooperative learning group, which is adopted for IL, to a certain extent. He also indicates that LS teachers strongly desire professional development in elaboration learning and teaching strategies.

3. Method

3.1 The Current Study

Graue and Rauscher (2009) extend the understanding of conversation on class size reduction beyond published literature and recommend a future inquiry on instruction in terms of instructional strategies that capitalize on the resources of a smaller group and the types of support required for the professional development of teachers.

The aforementioned studies have highlighted the significance of SCT for IL in LS, benefits of and

challenges to SCT, and professional needs of teachers concerned. According to a local study on SCT for IL in LS by Leung (2014b), teachers highlight their concerns about school-based considerations and the balance between theory and practice for future professional development programs and recognize collaborative school culture as common challenges. Architecting leadership at different levels (Leung, 2014a), especially at the level of teachers, is crucial in dealing with these challenges or the future development of curriculum reform.

After a review of educational literature, Katzenmeyer and Moller (2009) define teacher leadership as teacher leaders lead within and beyond the classroom, identify with and contribute to a community of teacher learners and leaders, influence others toward improved educational practice, and accept responsibility for achieving the outcomes of their leadership.

Therefore, a further study on school-based SCT for IL is genuinely required. Thus, the present study investigates the concern of the teachers regarding SCT for IL in LS and explores how teacher leadership may help SCT for IL in LS based on the responses of the teachers in interviews. The relevant research questions of the study are as follows:

1. To what extent do teachers perceive the importance of IL in SCT for LS?
2. How do teachers provide students with IL in SCT for LS?
3. What are the challenges of teachers in facilitating IL in SCT for LS?
4. What are the concerns of teachers regarding professional development for facilitating IL in SCT for LS?
5. How could teacher leadership enhance SCT for IL in LS?

3.2 Methodology and Sample

Case studies (Cohen et al., 2000) can penetrate situations in ways that are rarely susceptible to numerical analysis and they can also generate a rich description of a phenomenon from the perspectives of participants. The current study adopts an illustrative case study approach. Illustrative case studies are descriptive, and they utilize one or two instances to demonstrate a situation. These case studies serve to make the unfamiliar familiar and provide readers with a common language about the topic. Different teachers in different contexts employ different methods of IL in SCT for LS. Thus, illustrative case studies illuminate the commonalities and differences between the cases and the intricacies of planning and delivering IL.

Semi-structured interviews allow respondents to express themselves to some extent but provide a sufficient framework to prevent aimless rambling. This framework generates a set of questions and allows an extended discussion to thoroughly investigate the valid fields of interest. Furthermore, the key informant technique (Goetz & LeCompte, 1984; McKernan, 1994) allows researchers to learn from individuals who possess unique or specialized knowledge, as well as skills or expertise within an organization, and who are willing to share these specialized knowledge and skills with the researcher. Therefore, the key informant technique ensures that the researcher gains access to individuals who know their subject and can provide valuable data.

The current study is a small-scale research, and the method is case study using semi-structured interviews (Appendix 1) with purposive sampling involving two teachers (Appendix 2) who teach NSS LS in the same school. The sample comprises teachers who teach NSS LS in a Hong Kong secondary school with SCT. The key informants (i.e., teachers of LS) are approached for the interviews. Considerations in identifying the sample include willingness to be interviewed and experience in offering IL in a small-class setting for LS. Semi-structured interviews were conducted and the results were tape-recorded, transcribed, and analyzed to answer the research questions. The subsequent section presents the findings and discussion of the study.

4. Result and Discussion

4.1 To What Extent do Teachers Perceive the Importance of IL in SCT for LS?

Teacher A: I regard knowledge is something which can be memorized. In contrast, IL is something which has to be nurtured. It is difficult to materialize this nurturing process in a large class, as it would virtually be impossible to standardize a single gauge which fits all, given the many limits to conducting a lesson. As a result, SCT is a must in the development of students' IL.

Do you reckon SCT is a prerequisite to IES? Yes, SCT, and not individual consultation, is the way which I can materialize the questioning techniques. After devising the prompting questions, students would discuss the methodologies for their IES. When students have their discussions, I expect questions of similar nature would appear in the same group. At the initial stage, questions are less related to one another. As the discussions progress, the students would have gathered adequate opinions from their peers to consolidate their prompting questions.

First, students are not only working on their own questions. Second, students' analytical power is developed. For instance, some issues are by and large about China, and some others are about the natural environment. I would separate these questions and the respective students into different groups.

Teacher B: IL is the process to unify different subjects. It as well unifies knowledge and life experiences. Through SCT, students could make use of their own life experiences to explore issues by means of conversations.

So do you mean it [interaction] is for the good of both LS and other subjects? Yes, because cross-subject curriculum helps students develop IL—as an inter-disciplinary learning process.

I would say, efficacy in teaching and learning of all subjects, LS included, would be enhanced if the maximum number of students in each class is stipulated. This is because teachers and students would have more room for conversation. Teachers may have more mutual trust with students, and vice versa, which shall lead to higher lesson efficacy. And, scopes and depths of discussions would as well be enhanced. A lower number of students would help promote their motivation in observing and understanding what they see.

Therefore, both teachers think that SCT enhances IL in LS. The experienced teacher believes that students can develop their questioning techniques, methodologies, and analytical power in LS as they

work in groups. The novice teacher thinks that SCT allows students to discuss among themselves and with their teachers, as well as utilize their life experiences to explore the issues in LS.

4.2 How do Teachers Provide Students with IL in SCT for LS?

Teacher A: My preferred interaction is that I would be a facilitator who would assist my students in playing table tennis. Under this setting, different students would participate and respond, and my participation in the game shall be put to a minimum. Only through this I could observe each student's response in depth. The depths I am looking for would not be limited to only their verbal responses, but also their linguistic gestures and even their talks with their peers. This classroom setting therefore allows teachers to learn more about different students, and then facilitate their interactions. I would regard this as perfect SCT.

Do you believe we should instruct the IL within LS through SCT? Yes, because an LS teacher, to my mind, has to address students' IL, and not only the knowledge of the subject. On the teacher's side, s/he may need insights to make adaptations to the teaching strategies and materials for students. Only through addressing all these concerns could students develop IL through SCT. Teachers can easily materialize all these by allowing students to have discussions. Teachers, in particular when discussing controversial issues, need to have well equipped themselves with good questioning techniques, which would allow students provide not only a simple answer, but ample elaborations which justify their thoughts.

I would have a small group setting. The easiest way to do so is that each group has to present their opinions on a controversial issue. However, one has to note that no groups would be presenting about the same matters. They, instead, would digest other groups' propositions and discuss them, then raise their questions. Through this, students would appreciate an issue from different perspectives.

By using mind maps and time lines, I encourage students to appreciate the chronology of events. Then, mind maps allow students to realize the development within a particular time frame. I tend to combine these two strategies. And, the third strategy is that a question which demands students' critical analysis is provided to the small groups, which have to express their opinions and justifications under very tight time constraints.

Teacher B: The practice we adopt at present is that teachers would provide students with some guiding questions, which students would build their discussions upon. Teachers, meanwhile, observe if there are any questions arising from the discussions, and provide assistance for their IESs.

You have mentioned connecting IL to daily life. How would you materialize this? Students would be able to view matters from wider perspectives when they encompass their different personal backgrounds, for instance, having a single parent, or from an underprivileged social class. Students would then realize that some social issues have already happened to some of their peers, which would cause a greater impact to the rest of the class. The infiltration of these social issues would be more efficient.

With respect to a teacher's proficiency, his/her subject knowledge is the key. At present, I am still a

novice, and I need much more exposure. To cite an example, she/he needs the techniques to raise questions which facilitate students' thinking process. Otherwise, discussions among students would be off track. Students need conversations with peers and teachers, who would provide questions that deepen their thoughts, and re-route their discussions back to the issues concerned by incorporating students' various life experience.

Therefore, both teachers adopt a facilitator approach in conducting LS classes. The experienced teacher facilitates interactions among the students and helps them perceive new knowledge through group discussions, presentations, mind maps, timelines, and field activities. The novice teacher provides students with guided questions to enhance their thinking processes in discussions, connects IL to daily life through conversations, and improves their IESs through individual consultations.

4.3 What are the Challenges of Teachers in Facilitating IL SCT for LS?

Teacher A: To clarify this, teachers first have to equip themselves with a collection of pedagogies which are specialized for SCT. Second, they need to have a grasp of the salient features and the demands of LS. Then, teachers can make the best of IL and SCT, provided that they are also highly familiar with their students' aptitude and their expectations on the students.

An extremely lengthy time span is required to develop students' IL. Another potential factor contributing to the lengthy development of IL is age, and thus students' maturity. Time constraints would then become a very prominent obstacle to us.

The key to success is less bureaucracy within school. There are two main obstacles to IL at my school. First, the mid-level and senior teachers, who possess administrative power, have too much say on the frontline teachers' proposals and trials. Second, there is virtually no official communication among different subject panels at my school. As a result, the dissemination of IL in LS to other subjects at my school proves a very challenging task.

There are two major inadequacies in the allocation of human resources for IL through SCT at my school. First, we do not have an enough academic as well as supporting staff members respectively for frontline teaching and resources support. We are in need of more teaching assistants who would help us make adaptations to the curricula, and participate in collaborative teaching under SCT. To make the most of SCT, we have to experiment with different teaching strategies, which demand extra human resources. The second inadequacy in terms of human resources is that teachers' total teaching load has to be reduced.

Teacher B: The greatest difficulty is that teachers have to well equip themselves with the knowledge and their underlying principles.

When a teacher is familiar with their students, she/he can better address individual differences and encourage discussions.

Would you encounter different difficulties if you were teaching large class size? I would probably not have enough opportunities to talk with them and therefore it is difficult to understand their views. Room for discussions would surely be reduced. It would thus be a very demanding task for a teacher to

cater to 36 students as we discussed during observations, e.g., discussions could either be dominated by a student in a group, or simply that no one in a whole group wants to speak.

Therefore, both teachers agree that they require a good understanding of SCT for LS and high familiarity with their students to facilitate IL. The experienced teacher regards time constraints in teaching, age of students, human resources, and bureaucracy in school as challenges; while the novice teacher admits the limitation of teaching due to large class size.

4.4 What are the Concerns of Teachers about Professional Development for Facilitating IL in SCT for LS?

Teacher A: There is one key element which is reflected in peer lesson observations. That is teachers have to equip themselves with the professional judgment which allows them to adapt and fine-tune the curriculum and pedagogies that fit each individual, so that every student would receive what is optimally oriented to him/her. ... I believe teachers should opt for pairing as mentors and mentees.

In-service teachers have no better choice than taking a block release. They should make themselves free from any frontline teaching, and allow themselves to fully immerse in the professional development. Then, they would have equipped themselves with the latest theories, which will prepare their re-entry to the classroom.

Teacher B: I reckon teaching strategies are the key... There are three major considerations concerning the teaching strategies. The first is exposure. A teacher has to expose him/herself to various pedagogies, and connect them to his/her own experiences. The second is peer lesson observations. The final is the practice of SCT observation, which is vital.

I believe having professional development at weekends is more useful, as the frontline experience may help me consider if the theories learnt are applicable to my students. If I deem them inapplicable, I may obtain advice from the expert right at the courses.

Both teachers agree that professional development should include peer lesson observations and pedagogies. However, the experienced teacher opts for full-time professional development, whereas the novice teacher prefers part-time training on weekends.

In sum, both teachers believe that SCT enhances IL in LS. The teachers require a good understanding of SCT for LS and high familiarity with their students to facilitate IL, adopt a facilitator approach in conducting LS lessons, and agree that the professional development of teachers should include peer lesson observations and pedagogies. However, the beliefs and practices of the two teachers differ from other perspectives. The experienced teacher claims that students can develop their questioning techniques, methodologies, and analytical power in LS as they work in groups, facilitates interactions among students, and helps them perceive new knowledge through group discussions, presentations, mind maps, timelines, and field activities. Moreover, this teacher regards time constraints in teaching, age of students, human resources, and bureaucracy in school as challenges. Hence, the experienced teacher adopts an interactive approach between teachers and students, has a variety of techniques in facilitating IL, and considers the contributing factors and constraints beyond classrooms. By contrast,

the novice teacher adopts a liberal approach by providing students with more room for exploring LS issues through discussion and conversations among themselves. This teacher adopts the general teaching method, although the students are provided with guided questions to enhance their thinking in discussions. Compared with the experienced teacher, the novice teacher does not consider factors beyond classrooms, such as administration and human resources. The novice teacher is basically concerned about IL in the classroom context such as the number of students in class. The novice teacher believes that SCT allows them to explore the issues in LS through their own life experiences and prefers connecting IL with daily life through conversations with the students. The experienced teacher opts for full-time professional development, whereas the novice teacher prefers part-time training on weekends.

4.5 How Could Teacher Leadership Enhance SCT for IL in LS?

The interview findings revealed similar and diversified practices among the views of teachers on the provision of SCT for IL in LS. For the future implementation of SCT for IL in LS, Leung (2014a) suggested that the Hong Kong education community needs continuous reflection, review, and improvement on the future direction and architecting leadership is significant. Different categories of teacher leadership (Katzenmeyer & Moller, 2009), therefore, are analyzed and highlighted as follows:

a. Teacher leadership within and beyond the classroom:

An experienced teacher can be a leader within the classroom for student learning. The teacher is responsible for the provision of quality IL in LS through SCT. Hence, specific teaching and learning strategies, such as advanced questioning strategies, mastery learning, and assessment for learning, considerably help (Leung, 2014a). With regard to SCT for IL, both novice and experienced teachers can help each other and other teachers by sharing teaching resources, approaches, and experiences, which is a type of teacher leadership that goes beyond individual classrooms. Typical examples include the arrangement or organization of peer teaching observation and professional development programs. Therefore, the collaborative effort of teachers is the key indicator of teacher leadership for IL in SCT.

b. Teacher leadership for community of teacher learners and leaders:

Teacher collaboration can be developed and organized in a formal and systematic manner to highlight teacher leadership. Hord (cited in Katzenmeyer & Moller, 2009) suggested the following dimensions of a community of teacher learners and leaders:

- Supportive and shared leadership;
- Shared values and vision;
- Collective learning and application of learning;
- Supportive conditions;
- Shared personal practice.

Both experienced and novice teachers need to refer to the abovementioned ideas in teaching IL by SCT to achieve teacher leadership regarding a community of teacher learners and leaders. Therefore, the collaborative sharing of responsibilities, power, and decision making among the teachers considerably

help in increasing the capacity for the provision of quality SCT for IL, for instance, the challenges of professional learning across subjects through intra-school sharing and establishing a collaborative school culture (Leung, 2014b).

c. Teacher leadership for improved educational practice:

With regard to influencing others toward improved educational practice, experienced teachers should be credible to novice teachers by introducing best practices, such as interactive/multiple considerations beyond classroom context, which influence their SCT teaching practices and approaches for IL. This type of leadership is possible only if the leader is a model of a continuous learner who cares about his/her professional development in a variety of formats or modes.

d. Teacher leadership for responsibility of achieving outcomes:

For the acceptance of responsibility for achieving educational outcomes, Leung (2014a) points out the importance of leadership in the future development of the curriculum in Hong Kong. Quality teaching of IL in LS is one of the key learning outcomes in the continuous development of the current curriculum reform. Teacher leaders move beyond vision, as well as take action and responsibility for the outcomes. For instance, as highlighted by the latest curriculum guides for the curriculum reform (Curriculum Development Council, 2014), both experienced and novice teachers could form a collaboration team and aim for the following outcomes:

- Focusing on the review of the effectiveness of SCT for IL in LS;
- Enhancing the quality of SCT for IL in LS;
- Sustaining the positive effects of SCT for IL in LS.

In sum, the future development of SCT for IL in LS should refer to the teacher leadership of various levels or dimensions.

5. Conclusion

Through school-based case studies and semi-structured interviews of experienced and novice teachers, the study reveals common and diversified ideas and practices regarding SCT for IL in LS. Therefore, the diversified ideas and practices of the teachers could be dealt with teacher leadership for the development of effective teachers (Jensen, 2010). Teacher leadership helps enhance SCT for IL in LS in terms of classroom context, learning community, improved practice, and outcome achievement in education. Finally, SCT for IL in LS has been highlighted by numerous studies as an effective teaching strategy. The findings of this study reflect the views of a particular sample of LS curriculum practitioners in Hong Kong in a particular period. Based on the recognized status of the Hong Kong school system indicated in international studies, the responses from teachers regarding their concerns of SCT for IL in LS may provide valuable insights into teacher leadership for teachers and policy makers across the world.

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Appendix 1

Key Interview Questions

1. Could you quote some examples of IL in LS? Do you think IL is the key feature of LS? Why or why not?
2. What is the relationship between IL in SCT for LS? Do you think that teachers should use SCT for IL in LS? Why or why not?
3. In which approaches of implementation do students benefit the most from SCT for IL in LS? Why?
4. Are you equipped with the skills to facilitate IL in LS by SCT? Why or why not?
5. Have you implemented SCT for IL in LS? Could you quote examples to illustrate how they are put into practice?
6. In your opinion, what are the major challenges in providing IL in LS by SCT?
7. How can you contribute to providing SCT for IL in LS at your school?
8. In your opinion, what are the factors that successfully facilitate IL in LS by SCT?
9. What do you consider as the most important factors and formats of the professional development for teachers to provide students with IL in LS by SCT?

10. Other questions related to the study.

Appendix 2

Information about Interviewees

School Type	Aided/Subsidized	
Student attainment	Medium/Average	
Regular class teaching	34 - 36 students	
Small-class teaching	26 - 28 students	
	Teacher A	Teacher B
Highest qualification	Master of Education	Bachelor of Education
LS-related teaching experience (yr.)	10	0
LS-related panel head (yr.)	2	0
NSS LS teaching experience (yr.)	3	2
NSS LS panel head (yr.)	3	0
Small-class teaching experience (yr.)	3	2
Professional training in small-class teaching	Yes	No formal training