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USING YOUTUBE™ VIDEO SHARING IN TRAINING HOW TO COACH STUDENTS WITH SPECIAL NEEDS

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Abstract:
This paper provides a brief background on the Lesson Study approach and its variant forms such as Modified Lesson Study, Learning Study and Virtual Experiential Learning Study. In addition, the authors have included a brief discussion about information and communication technology (ICT) and its impact in both education and professional training that has given rise to the development of the Quasi-Lesson Study (QLS). The main ICT contribution highlighted in this paper is the YouTube video-sharing service that can be used in the training of teachers and/or allied educators in both mainstream and special schools as well as educational therapists working in private learning centers/remedial learning clinics in Singapore and Malaysia today. YouTube sharing is used at various phases in the QLS cycle to help a teacher, allied educator or educational therapist become better equipped with not only the know-what (i.e., content knowledge and skills), but also the know-how (i.e., techniques and strategies) when working with students with special needs. How YouTube™ sharing can help in overcoming the constraints of coordinating a lesson observation and other challenges in traditional Lesson Study, such as the awkwardness of being observed, is also discussed. More professional training ideas may thus spin off from the QLS concept, as others may be inspired to transcend the limits of traditional Lesson Study through the QLS approach.

Keywords: Quasi-Lesson Study, QLS cycle, special needs, video sharing, Youtube™

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Introduction

According to Cheah and Lim (2010), Lesson Study was introduced to Malaysia through networking with educators from Australia back in 2003, but the "first accounts concerning the use of the Lesson Study approach in Malaysia were reported at the Universiti Sains Malaysia, Penang" (Cheah & Lim, 2010, p.3). In Singapore, a research project on Lesson Study was carried out in 2006-2007 to determine how it could be used to bring about enhanced teacher learning and instructional improvement (Fang & Lim, 2006/2007).

The growth over the years in the use of Lesson Study, especially in South-east Asia (particularly in Hong Kong, Malaysia and Singapore) and also in the United States as well as in Europe, and the development of various forms of Lesson Study that can serve to promote better outcomes in the educational (mainstream as well as special education) community is cause for celebration. With the growing use of technology and its social-networking applications in modern societies, Lesson Study has been given a new twist by the development of a variant that can be called Quasi- Lesson Study (QLS). The prefix *quasi* is added to the term Lesson Study (i.e., Quasi-Lesson Study) because this approach has some, but not all, of the features of the usual Lesson Study cycle. The aim of this paper is therefore to provide a description of this development from the beginning of Lesson Study, and to elaborate on the concept of QLS.

1. Lesson Study and Its Variant Forms

According to the American researcher Lewis (2000), Lesson Study (kenkyū jugyō) means "research lesson" in Japanese, and it refers to lessons that are jointly planned, taught, observed, and discussed by a group of instructors. In this way, a lesson can be carefully analyzed to help teachers understand how students learn from the teaching of it. More importantly, the knowledge of what led to the students' insights or misconceptions can be used to improve both the teachers' and students' future performance. Hence, it can be a very useful tool for the professional development of educators in both mainstream and special schools, as well as for allied educators who provide learning and behavioral support for students with special needs in mainstream schools and the educational therapists who work with students with special needs in private learning centers or remedial learning clinics.

Although Lesson Study has its roots in Chinese Confucianism, it has been used for over 140 years in Japanese schools and is increasingly being adopted in countries such as the United States. This may sound incredible, given the differences between the Japanese and American educational systems. Lewis (2000) mentioned that when she

started out on her Lesson Study research in Japan, "*some colleagues on both sides of the ocean said there was nothing to study*" (p. 4). Mindsets appear to have changed, as Lesson Study has spread rapidly in the United States since 1999 as professional development for teachers (Lewis, Perry, Hurd, & O'Connell, 2006) and even washed-up to the shores of higher education there (e.g. Cerbin, 2011; O'Donnell, 2013).

To carry out Lesson Study, trainees[ii] form a study group (also known as the Lesson Study committee/team) for the purpose of working in small groups. The members collaborate with one another and meet to discuss learning goals, and to plan an actual classroom lesson that is to be the "research lesson". The delivery of the lesson is then observed to see how the lesson that was designed works in practice. Then, the outcome of the lesson is shared for the benefit of other teachers, allied educators and/or educational therapists. To achieve the objectives of Lesson Study, the members of the Lesson Study team are expected not merely to perform a perfunctory role, but also "*to strengthen a given lesson until it has been refined as much as possible*" (Easton, 2009, p. 2). The aim of teaching the lesson is to "*get powerful data about how well the lesson works*" (Easton, 2009, p. 2). After the lesson is conducted, the teacher, allied educator or educational therapist who has taught it reflects on the lesson and the other members of the Lesson Study committee share the data they collected during the lesson observation; then the committee makes a decision. This takes the form of "whether to revise the field-tested lesson and teach it again," or "*simply apply what they have learned to another lesson*" (Easton, 2009, p. 2).

From the structure of Lesson Study, one can see that it resonates with the Plan-Do-Check-Act (PDCA) cycle which similarly has four steps. The PDCA cycle (see Figure 1) was proposed by Shewhart (1931, 1939) and is commonly used as a problem-solving model in the context of quality management (Deming, 2000). PDCA (also known as the Deming Wheel or Deming Cycle) "*was developed by renowned management consultant Dr William Edwards Deming in the 1950s*" (MindTools, 2017, para.5). Deming himself called it the Shewhart Cycle after his mentor, Walter Shewhart, who gave him the idea (*Gabor, 1992)*. However, Deming's fundamental concepts about quality were rejected by his homeland (Peterson, 1993), but the Japanese embraced his teachings (*Aguayo, 1991)*. Peterson (1993) also pointed out that Deming's work in the Japanese industrial renaissance was even honored by the Emperor of Japan who awarded him with the Second Order Medal of the Sacred Treasure in 1960. It is no wonder that when Lewis told the Japanese teachers how she was learning from them, they in turn mentioned

[ii] The term "trainees" used throughout this paper refers to all pre-service teachers and allied educators in both mainstream and special schools, and also educational therapists in learning centers or remedial learning clinics.

that they thought many of their teaching techniques came from the United States (Lewis, 2000).

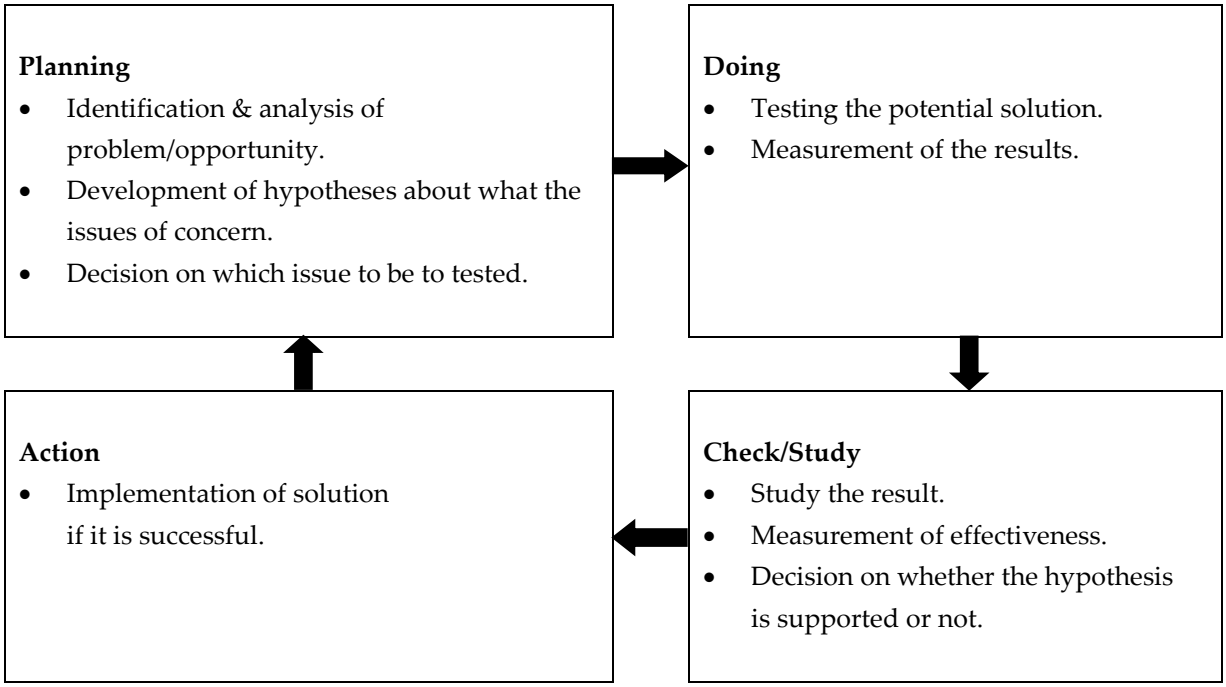

Figure 1: The PDCA Cycle

1.1 Learning Study

Various types of Lesson Study have evolved through the principle of continuous improvement of processes and products in PDCA. One prominent variant of Lesson Study is Learning Study. Learning Study can be described as a collaborative action research approach to Lesson Study. According to a report by Cheng and Lo (2013), Learning Study has its origins in Hong Kong and has since attained dominance as a mode of practice in countries like Sweden and Brunei. As stated in the report (Cheng & Lo, 2013, p. 1), the aim of Learning Study is "*to improve the effectiveness of student learning by enhancing the professional competence of teachers through joint construction of pedagogical content knowledge by teachers to help students to learn specific objects of learning.*"

1.2 Virtual Experiential Learning Study

Another variant arising from Learning Study is known as the Virtual Experiential Learning Study (VELS) (see Cai & Chia, 2014, for details). As the name implies, VELS is a variant that uses virtual reality technology to promote experiential learning. VELS can be conducted with or without a trainer/facilitator, as it relates solely to the meaning-making process involved in an individual learner's direct experience. According to Kolb (1984), in order to take full advantage of experiential learning one must first of all be predisposed to stay engaged in active participation and reflection on the experience.

Furthermore, one must develop an analytical conceptualization of the experience, and then use new ideas from the experience for decision-making and problem-solving. Adopting such approaches in order to make meaning out of the processes would greatly help to promote experiential learning in VELS.

1.3 Modified Lesson Study

There is yet another variant of Lesson Study called Modified Lesson Study (MLS). MLS was developed by Chia and Kee (2010), with the objective of using Lesson Study as a formative assessment of pre-service special education teachers' teaching practicum in Singapore (more than in Malaysia). Details on this practical variant of Lesson Study can be found in Chia and Kee (2011, 2012, 2013) and these readings are recommended for further understanding of the subject matter.

1.4 Quasi-Lesson Study

Finally, due to various constraints such as privacy regulations and the lack of opportunities for observing a lesson taught in classrooms/resource room/clinical room in Malaysia and Singapore, Quasi-Lesson Study (QLS) has been designed to overcome these constraints through the use of YouTube™ videos. It has always been difficult to bring in a large group of trainees to watch how a lesson or intervention session is taught by an experienced educator or therapist in a real situation. At the same time, it can also be daunting for anyone, even if he or she has years of relevant experience, to be observed conducting a lesson or session by many pairs of eyes. Hence, YouTube™ offers a good alternative for addressing this challenge, as it provides a wide range of exemplary lessons as well as those more poorly done, so that trainees can use them for personal reflection and more in-depth discussion for the purpose of exchanging ideas, sharing thoughts and working collaboratively to improve the lesson they have watched. Although the new lesson planned cannot be taught to the same group of students or in the same context seen in Youtube™, the trainees can demonstrate how it could be conducted during an informal teaching session in their own small group presentations.

2. New Information and Communication Technologies

In many developed as well as developing countries today, the use of information and communication technologies (ICT) has become ubiquitous. ICT devices such as smart phones, tablets, laptops, smart TVs or computers have become indispensable tools in the lifestyle of urbanites. Since the advent of the internet, ICT devices have been used to access an ever-more-expanding myriad of social media platforms such as YouTube™, Facebook, Twitter, WhatsApp, Instagram, Pinterest and LinkedIn. The success of social

media probably lies in the fact that it is about more than just plain chatting with friends; it is also a platform for sharing sounds and images, as well as video productions. This social phenomenon is exemplified in the conceptualization of Youtube™, the video sharing platform, which is said to arisen from a dinner party experience (Cloud, 2006). As we might expect, the widespread online sharing of knowledge and experiences can also include teaching projects emanating from the classroom/intervention session.

In Lesson Study, trainees and their mentors can jointly scrutinize one single lesson in order to analyze how students learn from the lesson taught. The aim would be to use what can be learned from the study of that lesson to improve the performance of both teachers/allied educators/educational therapists and students in the future. Using the lesson plan from Modified Lesson Study (Chia & Kee, 2010) as a framework for analysis, the profiling of students' strengths and weaknesses comes to the fore and this often forms the basis for the content and strategies to be used in the lesson.

For the trainees (including already qualified teachers, allied educators and educational therapists) to decide what to teach (i.e., content knowledge and skills), they first need to determine the area(s) of deficits or weaknesses in which students need targeted support and training. For instance, students with autism spectrum disorders have social deficits and joint attention does not come automatically. Given that personal data is highly protected in Malaysia and Singapore, it can be quite difficult for trainees to view an actual video clip of an affected student's behavior or witness it for analysis. However, there are a number of YouTube™ videos showing, in clinical settings or other contexts, how people affected by autism lack joint attention skills. Very often, the behavior of typically-developing subjects is used in contrast as well in such videos. Reflective questions on the video could generally help elicit empathic responses from viewers on how people can be caught unaware, and how their immediate assumptions about the person with autism can be detrimental to the social development of the parties involved on both sides. The downside of using videos that are not of the actual person to be profiled or understood is that any disorder can be heterogeneous in nature; hence, there is no single representation that can fully demonstrate the actual manifestation of the behavior in the person in question. Therefore, attention should be drawn to the caveats related to use of such videos and implications must be carefully weighed in Lesson Study.

Profiling students can be a great way to get trainees to tune in to what they should focus on to understand a student's needs and the strengths that can be leveraged for that student's learning. Take the symptoms in dyslexia, for instance - as in autism; affected students manifest the symptoms in various ways. As both biological and environmental factors act in different combinations, each student has a unique developmental profile. Though assessments are best left in the hands of specialists, it

could nevertheless be helpful for trainees to watch a video of what it is like to have certain difficulties, for example, in distinguishing letter sounds. This could augment their understanding of what is stated in the specialist's diagnostic report on the student's learning disability. This might also help in getting them to "buy in" to the idea of providing explicit instruction in their lessons. Such an outcome of video-based Lesson Study would go a long way in improving the performance of affected students.

In terms of content delivery and techniques, there are also a good number of exemplars in clinical and school settings on YouTube™. These vary on a continuum of lesson structure, ranging from structured lessons such as those based on Applied Behavioral Analysis (ABA) at one end to loosely structured ones like play therapy at the other. Trainees can watch how the modeling and reinforcement of a behavior or skill can be implemented using the different types of lesson structure, and can even learn the techniques of correcting the student, data collection and using clear language for consistency to suit the student's level of understanding. The use of short video clips is a very cost-effective form of presenting concepts to be taught to trainees. The sound and visual effects of a video could definitely help to augment the traditional chalk-and-talk method of classroom/intervention session instruction. Through a video presentation, receivers of the information can be transported to the actual or multiple contexts of the material to be learned without actually being there physically. The trainee can thus gain a deeper understanding of the subject matter by using the contextual clues in the video that chalk-and-talk cannot provide explicitly enough. Besides, watching a performance by another fellow being can support a realistic assessment of how achievable a task can be. Therefore, an appropriate video clip can be used to increase the viewer's self-efficacy and embolden him/her to make the attempt to perform the task. Furthermore, the playback function of a video clip can facilitate the familiarization of concepts/contexts, repeated practice, and/or practice in tandem with the video modelling outside of classroom/intervention session time. This could ultimately lead to quicker acquisition of the skills to be learned.

Other than providing performances that are modelled by others, YouTube™ as a video sharing platform has allowed many to upload their own teaching videos. Indeed, the protagonists in some of the uploaded videos overtly state the purpose of their teaching video and the course code of their assignment. This would serve well for self-modelling purposes, as the learner could watch and reflect on his/her own performance, as well as receive feedback from viewers for reinforcement or improvement. Trainees can thus use the YouTube™ platform for exchanging ideas, sharing thoughts and working collaboratively to improve the lesson they have uploaded. Collaborative learning through video productions also helps in providing hands-on work opportunities. Another attribute of such learning opportunities is that trainees can get a

dose of excitement through role-play. Role-play in video assignments can be a more effective way of developing communication skills than pencil and paper tasks. In fact, transforming the written material to be learned into role-play takes the material into a different dimension that requires a different set of skills and techniques. By putting themselves in the shoes of others through role-play, trainees may better infer the thoughts of others and reflect more deeply on the subject matter.

3. Youtube™ Video Sharing

According to a study by Snelson and Perkins (2009), while online videos' popularity among its users is apparent, the application of these videos to serious academic undertakings is less noticed. Academic institutions have already begun to adopt grassroots video produced with inexpensive equipment and distributed through video-sharing sites like YouTube™. This is evident since the launch of YouTube™ EDU (http://www.youtube.com/edu) in March 2009, which is a central hub for videos from leading college and university partners where thousands of videos and hundreds of full courses are offered for free. It is possible to find numerous YouTube™ channels that are user sites which hold content with potential educational value. This would imply growth in the use of the service as a resource to transcend the limits of traditional Lesson Study through QLS is a concept that might be more readily embraced than ever.

4. Incorporating YouTube™ Video Sharing into Lesson Study

The structure of Lesson Study is examined here in order to better understand how YouTube™ video sharing can be incorporated within it. Briefly, in the normal Lesson Study cycle (see Figure 2), the following steps are taken (Lewis, 2011):

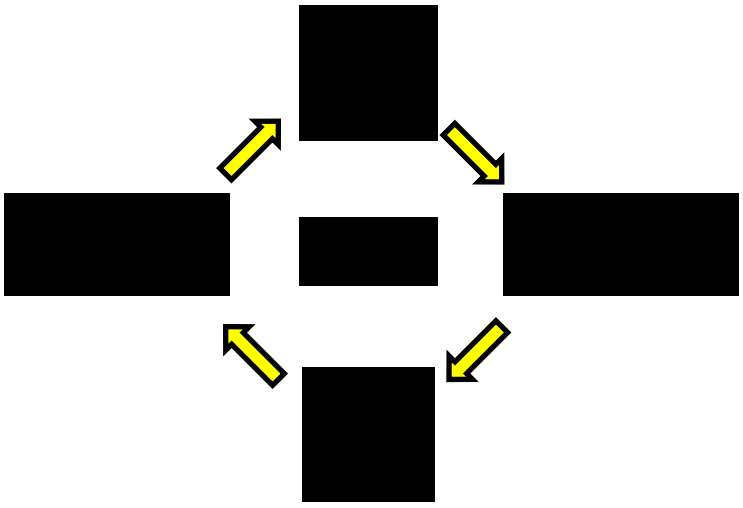

Figure 2: The Normal Lesson Study Cycle (adapted from Lewis, 2011)

Step 1: Formulation of goals for student learning and for long-term development use, to develop a research lesson question that will constitute the main focus of Lesson Study.

Step 2: Collaborative design of a research lesson plan (with a clear research lesson question) to meet the learning goals.

Step 3: Delivery of the research lesson, taught by one person from the Lesson Study group. The other members in the group observe, take notes and provide feedback later on.

Step 4: Lesson evaluation and discussion on how to improve the lesson, which may be re-taught and refined further in the same or a different class or in more classes.

In the QLS cycle, there are also four phases but with different steps (as elaborated below) to be taken:

Phase 1: Preparation

Step 1.1: The trainer needs to know exactly what the research lesson question(s) is (are), for example, to find out whether using sight and sound reading simultaneously is a better way to teach a poor reader to recognize words more quickly. The trainer, who is going to facilitate the YouTube™ video sharing session, must preview it first to ensure that an appropriate YouTube™ video clip (e.g., sight and sound reading) with a relevant teaching topic has been selected for video sharing.

Step 1.2: The trainees are divided into small Lesson Study groups before the video clip is played. A list of questions is provided by the facilitating trainer to guide the trainees to know what they should look for in the research lesson observation (as viewed in the YouTube™ video clip sharing) and to take note of important points that they will use for their Lesson Study group discussion.

The list of questions may include the following, organized by timing: (A) before and during the YouTube™ video clip sharing; and (B) after the YouTube™ video clip sharing:

Part A: Before and during the video clip sharing

- What are the goals for student learning and long-term development?
- How does the research lesson (YouTube™ video clip) aim to fulfill these goals?
- By whom and how is the research lesson to be taught? It is important to note that Quasi-Lesson Study is not about the teacher or trainee; its focus is on the lesson.
- What is the evidence (e.g., student learning, motivation, and behavior) to be collected during the observation of the lesson in YouTube™ video clip? Under

this question, three further questions can be asked, according to Easton (2009, p. 12):

- ❖ What knowledge and understanding are important?
- ❖ How are they developed?
- ❖ What are the gaps in student understanding and knowledge?

- What is the academic focus of the lesson watched during the YouTube™ video clip sharing?

Part B: After the video clip sharing

- What went well in the lesson seen in the YouTube™ video clip sharing and what ought to be changed next time around?
- Which part of the lesson promotes student learning?
- What are the students expected to understand at the end of the lesson?
- What should be changed to improve or re-design the lesson?
- What will make the improved or re-designed lesson motivating and meaningful to students?
- What evidence gathered from the lesson seen in the YouTube™ video clip sharing will help the trainees reflect on the goals for student learning?
- What are the new issues of concern that would need to be addressed in the next research lesson?

Phase 2: Video Clip Sharing

Step 2.1: The trainees, together with the trainer, watch the YouTube™ video clip (e.g., teaching spelling to a child with dyslexia) and take notes at the same time.

Phase 3: Post-Video Clip Colloquium

Step 3.1: After the YouTube™ video clip sharing, the trainees in their own respective Lesson Study groups convene for a post-video clip colloquium, which begins with the trainer/facilitator prompting with some questions focused particularly on what worked and what did not work. The trainees should report what they have noticed and/or experienced from watching the video clip. A spokesperson from each group presents recommendations on how to improve the lesson gathered from the members to the participants from other groups. The trainer jots down the contributions from all the groups on the board for all to see and take note.

Step 3.2: Basing on the recommendations contributed by different Lesson Study groups, members of each group reconvene to discuss further and work collaboratively to improve the lesson that they have observed in the YouTube™ video clip sharing.

Phase 4: Role-Playing

Step 4.1: Every Lesson Study group engages in role-play by teaching the improved lesson plan. One member is chosen to conduct the lesson while the rest of the same group play the role of students. Other Lesson Study groups observe the session and provide further feedback.

Figure 3 shows the 4-phase Quasi-Lesson Study cycle whose steps have been briefly described above.

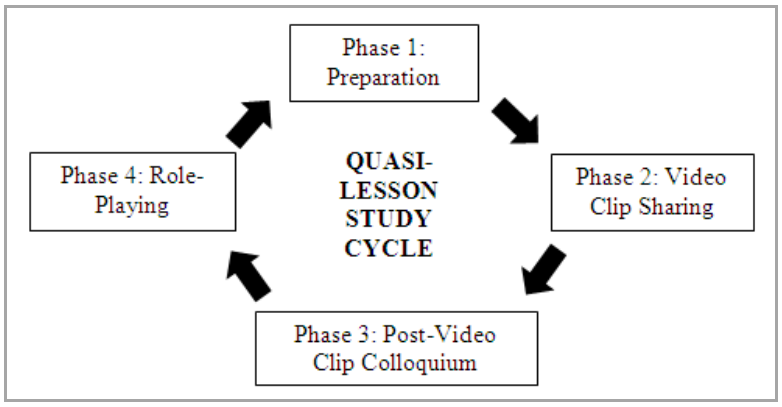

Figure 3: The Quasi-Lesson Study Cycle

Pre-service trainees involved in QLS can be reminded to review the lesson taught in the YouTube™ video clip in order to improve it as much as they can. To better prepare trainees as practitioners, it might be useful to decide who will teach the revised or improved lesson to the "students" (who may be from another Lesson Study group) while the remaining members will be observers within their own group to see what happens. This would drive home the idea that QLS is about a concerted effort to improve a lesson and observe what happens when the lesson is taught. Examples of data to be collected during the observation of the lesson in the YouTube™ video clip include the types of questions students asked, types of questions the teacher asked, and critical things that happened during the lesson.

5. Conclusion

In summary, Lesson Study involves the planning, teaching and evaluation of a research lesson, where a group of teachers come together to set up a committee or team (also known as the Lesson Study committee/team) to focus on a particular subject with the aim of improving their teaching to promote not only best practices in teaching, but also

meaningful learning among their students. In QLS, YouTube™ videos are used as a resource to be incorporated at various phases in the study cycle. There are clear advantages in doing so, as the use of such videos can help in overcoming the constraints of coordinating a lesson observation, as well as the challenges in traditional Lesson Study, such as the awkwardness of being the one observed. This method is not only face-saving for the teachers and less intrusive for the students but cost-effective and time-saving as well. Consequently, it can be a more effective tool for equipping teachers with not only the know-what (i.e., content knowledge and skills), but the know-how (i.e., techniques and strategies) for teaching. This is especially so with respect to understanding students with special needs. With the growing popularity of YouTube™, more teacher training ideas may spin off from the QLS concept. Perhaps then, more can be inspired to transcend the limits of traditional Lesson Study through the QLS approach to teacher education.

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