

School-based Reflective Lesson Study in Japan and South Africa: Towards A Bilateral Joint Research Project

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I . Introduction

The University of Fukui (UF) has been hosting renowned Roundtable for Reflective Practices since 2001. In 2021, UF hosted an online roundtable symposium titled, *International Initiatives on Teacher Education Reform: Different Approaches to Reflective Lesson Study* on June 19, under the auspices of Japan International Cooperation Agency (JICA). As representatives from the University of Pretoria (UP), Dr. Sekao and his graduate students joined the symposium and had group discussions with UF faculty and other international participants.

This very first exchange helped bring about a shared understanding of the Lesson Study that is carried out differently in diverse cultural contexts. Having common interests in school-based Lesson Study and its functions in cultivating professional learning community (PLC) of teachers, we have been continuing exchanges through online meetings after the roundtable. During the roundtables, the idea of joint research grew increasingly clear among us by integrating bilateral strengths to advance further.

This paper aims to elaborate on the potentials, possibilities and prospective challenges of this bilateral joint research project. Moreover, the reviews of lesson study in action associated with backgrounds are conducted in both local and national contexts as to understand the role of school-based reflection lesson study in educational reforms.

II . Reviews of School-based Reflective Lesson Study

1. South Africa

1.1 Overview of the Lesson Study in South Africa

Although there is evidence of LS becoming a focus of research in South Africa, it (LS) gained prominence in terms of implementation to develop teachers in public schools from around 1999 until 2006 in one of the nine provinces under the auspices of the JICA (Ono & Ferreira, 2010). However, due to challenges such as a curriculum reform processes in South Africa (Ono & Ferreira, 2010), there was a period of dormancy, possibly unintended, in the implementation of LS in schools. The revival of

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the LS and its implementation in a significant number of public schools across four provinces in South Africa, two of which account for the biggest proportion of learner and teacher population in the country, was realized in 2011 due to the collaboration between the national Department of Basic Education (DBE) and JICA. This resulted in a more structured approach to use LS as one of the models to develop mathematics teachers in primary schools. Currently the five-stage LS cyclic model (Sekao, 2019) is used in schools in South Africa, namely: diagnostic analysis, lesson planning, lesson presentation/observation, reflection and improvement. While all the five stages are deemed important, the first stage (Diagnostic assessment/analysis) is the distinguishing feature of the LS cyclic model practice at UP and in the majority of schools in South Africa.

1.2 Lesson Study at UP

The implementation of LS at UP is three-pronged: it focuses on (1) under-graduate students (student teachers or pre-service teachers) to equip them with the necessary practical skills to implement lesson study at a later stage when they are qualified teacher; (2) post-graduate students to explore LS through research; and, (3) in-service teachers to support them to improve their practice. In terms of the under-graduate students, LS forms part of the mathematics methodology modules where pre-service teachers are exposed to and apply the five stages of diagnostic analysis, lesson planning, lesson presentation/observation, reflection, and improvement. In relation to the post-graduate students (MEd and PhD) the emphasis is on research where some or all the

stages of LS are explored to gain insights into how they impact teacher development.

In terms of in-service teachers, the collaboration between UP and DBE is a central enabling tool to gain access to and support practicing teachers to improve their teaching skills. The existing MoU between the two institutions enables us to work together and be responsive to the development needs of teachers through LS training and support. As UP, we view this as social responsiveness or community engagement.

In addition, UP offers a short course on LS which is accredited and endorsed by the South African Council of Educators (SACE). Teachers who enroll for and complete this course are presented with a certificate of competence from UP and continuous professional development (CPD) points from SACE. UP provides additional support to teachers in their journey to implement LS after completing the short course.

1.3 Benefits and pitfalls of implementing LS in SA

Although LS is globally credited for improving teacher learning and practice (Takahashi & McDougal, 2016), there are also pitfalls associated with its implementation (Mon, Dali & Sam, 2016). Grimsaeth and Hallas (2016) make a compelling and persuasive argument that implementing a global phenomenon like LS in a local culture is likely to pose challenges. Two recent studies conducted in South Africa (Sekao & Engelbrecht, 2021; Ogegbo, Gaigher & Salagaram, 2019) shed light into the gains and pitfalls experienced by teachers when implementing LS. The gains experienced by teachers include teachers' professional and academic growth, improved teaching confidence, and a shift from

individualistic egg-crate practice to collaborative practice. However, there were also some pitfalls of systemic and conceptual nature: systemic challenges were mainly associated with circuit-based LS where teachers experienced difficulties of travelling to the other school to observe the lesson; while conceptual pitfalls include lack of accurate understanding of the attributes of certain stages of LS, such as post-lesson reflection.

Our view is that it takes time to mastery the art of LS, therefore expecting teachers (pre-service and in-service) to master the skill in a short space of time can be counter-productive. The FU-UP collaboration, therefore, is one way to share and co-create knowledge in a quest to continuously support teachers and young researchers in the effective implementation of LS.

1.4 LS forum in Africa

Another key initiative by UP and South Africa is to create a LS network within the African continent. This network, dubbed AfriLS (short for Africa Lesson Study) forum, is aimed at expanding and sharing insights on LS across the African continent. By virtue of collaborating with UP, FU is considered a strategic partner in advancing the purpose of AfriLS too. The first major activity of the AfriLS forum is the LS seminar to be held in 2022 which will focus on exploring the LS perspectives in Africa. About six countries have committed to take part in the AfriLS forum and we hope to grow this number further in 2022 and beyond.

2. Japan

2.1 A brief historical overview of lesson study and current trends in Japan

The evolution of lesson study as a form of

professional development has been growing in interest in both domestic and international contexts (Inagaki & Sato, 1996; Yoshida, 1999; Stigler & Hiebert, 1999; Lewis, 2002; Akita, 2006; Akita & Lewis, 2008; NASEM, 2009; Kimura, 2018). This practice of observing and discussing lessons among school teachers became institutionalized within schools in the 1900s, but it was restricted to the Herbartian teaching method, which impaired teachers' professional freedom and autonomy. From 1910 onward, and under the influence of Dewey-inspired progressive education theory from western countries, the obstructive status of lesson study was shifted to a more innovative level. Schools started to open their lesson studies to teachers from other schools, and teachers invented a writing style termed "Jisenkiroku" to reflectively document the learning development of learners and their own teaching practices. These practice reports were published, distributed, and discussed as case studies among teachers and researchers. This trend created an extra value to lesson study as teachers became more invested in the profession and took initiatives to improve their teaching.

From the 1990s, the paradigm of lesson study shifted from the micro to the macro, from analyzing lessons scientifically, to analyzing lessons for school reform. The targets of these new reform measures were centered around nurturing both learners' and teachers' learning. This paradigm shift ran parallel with an image change of the teaching profession; from a technical expert to a reflective practitioner (Schon, 1983). Lesson study was reevaluated through this new lens, and case studies were used for teachers to refine their reflective practices with colleagues (Sato, 1997).

To respond to the government's focus on

enhancing learners' performances, lesson study has been emphasized for lesson improvement since the annual national scholastic exam for compulsory education started in 2007. Given the need to cope with increased emerging and complex educational issues, teachers' professional development system was innovated. Graduate schools of teachers' professional development providing M.Ed. programs for both preservice and in-service teachers were established all over Japan from 2008. These graduate schools, in collaboration with universities, schools and boards of education, have created a teacher education model using a reflective practice approach to interweave practice and research at a daily base. Results of this commitment to support teachers' professional development need to be verified and validated (MEXT, 2018).

2.2 School-practice-based collaborative inquiry action research model in a local context

This paper zooms in Fukui model in a local context. Among the graduate schools of professional development of teachers in Japan, M.Ed. program at the University of Fukui, stands out as a school-practice-based collaborative inquiry action research model (Elliott, 1991) to enhance professional development of teachers. In designing the program, the paradigm that teachers learn by doing as reflective practitioners (Schon, 1983) brought in the importance of reflection in teachers' professional development, and requirement of designing teacher education programs to foster reflection in teachers. Therefore, an internship, different from the teaching practicum required to gain a teaching license, is considered as "learning by doing" for graduate students of both preservice and in-service teachers.

This characteristic distinguishes the Fukui model from the other 53 programs all over Japan (Yamauchi, 2019). The other programs require in-service teachers to take a leave of absence from their teaching schools to enroll at the graduate school for the first year, for the purpose of receiving academic training by taking lectures. As for the internship, they are assigned to specific intern schools they are unfamiliar with, in which practice research is conducted in simulated context rather than their realistic context. Moreover, preservice teachers only go to schools for a few weeks or months to do an internship. In this way, it turns out to be research-based teacher education programs which orients to train teachers with academic research methods as the same as traditional academic master programs. In fact, this is distant from cultivating teachers' competencies as practitioners for which the M.Ed. program strives in the first place.

On the other hand, in the Fukui model, each teacher together with their schools is supported by a university faculty team comprising members of researchers and scholarly practitioners. Preservice teachers, most of whom have gained teaching licenses in undergraduate programs, intern two or three days a week for two years in partner schools. During internships they learn school routines, observe, assist, and teach at 'school rhythm', they also have reflection meetings at the university once a week. When they teach at partner schools, university faculty go to observe their classes as a team and have lesson study meetings with them afterwards. In-service teachers take part in on-the-job internships at their affiliated (partner) schools by conducting practice-based action research towards solving realistic school problems as school middle leaders or in school reform

management roles. These practicing teachers come to the university to have reflection meetings with preservice teachers once a month. University faculty teams also visit their schools regularly to attend teachers' research meetings and school-wide lesson study meetings, as well as share ideas on how to motivate and organize teacher-initiated communities of practice (Wenger, McDermott & Snyder, 2002). Through these internships, meetings, and school visits, preservice and in-service teachers collaborate with university faculty and school colleagues to solve realistic school problems. As a result, learning communities of teachers across ages, school levels, districts, subjects, and administrative roles are cultivated in and beyond this program interweaving practice and research.

2.3 Institutional system of Fukui M.Ed. program

As illustrated in Figure 1, the timeline of an annual cycle of Fukui M.Ed. program follows along with school rhythm. Given the significance of “learning by doing” internships, partner schools for preservice teachers and affiliated schools of in-service teachers are places for teachers to practice and form inquiries at the same time as part of their fieldwork. In addition to the university faculty team, preservice teachers are assigned with school

teachers as mentors to supervise their internships. Monthly and weekly themed reflective conferences with peer teachers and university faculty are arranged to rotate practice and reflection frequently. Intensive courses involving reading materials and writing reflections are set during summer and winter vacations to prompt teachers to reflect, reframe and reconstruct their practices. Roundtables for reflective practice and organizational learning are open to the public, twice a year, which provide an open public platform to make dialogues and deepen further reflections among diverse professions, schools, ages, and regions.

It is worth noting that the program consists of three typical professional life phases of Japanese teachers: the lesson study PD course (preservice teachers), the school middle leader course (in-service teachers) and the school management course (in-service teachers). Although these three courses are divided by different life stages, they share the same concepts and curriculum designs. Teachers of the three courses form a CoP and PLC within and beyond this program. Due to the annual teacher shift system in Japan, existing CoP and PLC are likely to be distributed and spread to a wider scale.

The institutional arrangement within the whole annual cycle, featuring in practice-based and

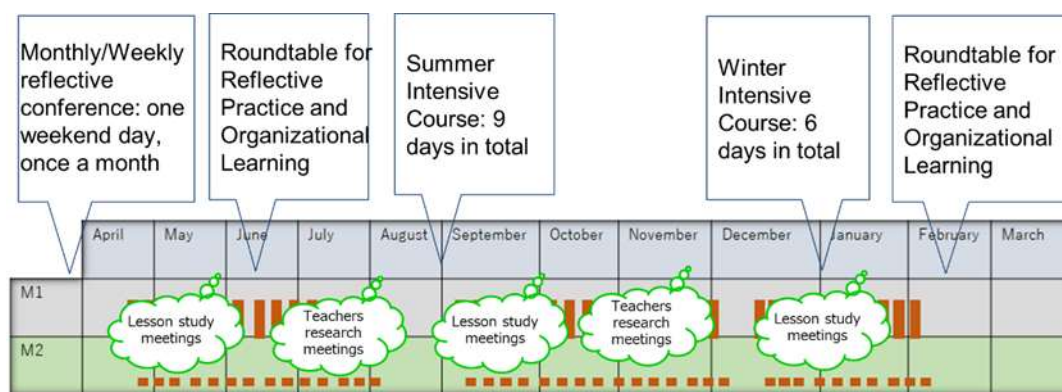


Figure 1: The Timeline of the Fukui M.Ed. Program in an Annual Cycle

reflection-oriented model, entails teachers to reflect-on and reflect-in actions (Schon, 1983, 1987, 1991) more frequently than the other regular programs. The whole process of multi-layered reflections is encouraged to be written as monthly practice reports which paves the way for them to write final longitudinal reflective practice reports. As a result of collaboration between partner schools and the university, books of school-practice-based case studies and writings have been written by practicing teachers and published. In the meantime, the history and development of different phases of lesson study have been reviewed and examined to propose the necessity of paradigm shift from technical PDCA cycle to reflective inquiry spiral (Kimura & Kishino, 2019).

III. Joint Research Project Proposal 2022-2024

1. Mutual Understanding

Acknowledging the significance of undertaking local researches and diverse practices of Lesson Study, we agreed on exploring reflective Lesson Study as a joint research theme. Examining the current status and needs of each context, UF inquiries into how to facilitate school-based reflective Lesson Study and how to cultivate PLC of teachers to sustain reflective Lesson Study. On the other hand, UP explores how teachers' diagnostic competence can be achieved through reflective Lesson Study and how reflective practice contributes to improving teaching practice. Our research questions complement each other when incorporated into a joint research. We endeavor to support teachers' learning in reflective practices as a shared common vision.

The main strengths of UP lie in its leadership in institutionalizing Lesson Study in university level

and its partnership with Ministry of Education (MOE) by a formal Memorandum of Understanding (MoU). UP is the first university in South Africa to institutionalize Lesson Study in undergraduate and graduate programs. Ten public schools have joined UP as project schools in implementing the Lesson Study program. The primary aim of community engagement is to assist the schools to understand and apply the Lesson Study model and improve learning outcomes while co-creating and sharing knowledge to improve the Lesson Study model further. The preparation has been done and the project is about to thrive. UP hopes to establish a PLC to share and evolve the lesson studies being conducted in various countries in Africa in the future.

Having established the pioneering professional graduate school for teachers' professional development since 2008, UF has played a leading role in teacher education reform in Japan. UF has built a collaborative school-university partnership to enhance teachers' professional development under the concept of teachers as reflective practitioners. In addition to domestic attention, UF has also committed to host programs on Lesson Study to help international teachers establishing reflective Lesson Study in their respective contexts. A joint research with a local university aids in achieving suitability of the reflective Lesson Study model and PLC community. Such research is in alignment with the intentions of UP and will ultimately contribute to the improvement of education in Africa as a whole.

2. Local Contexts & Problems

In South Africa, Lesson Study had first been introduced in the Mpumalanga Secondary Science Initiatives (MSSI) during 1999 to 2006 (Ono & Ferreira, 2010) as an alternative approach to

teachers' professional learning. Unfortunately, it failed to institutionalize Lesson Study as a school-based continuous professional development (CPD) program during the project period. To cope with this problem, University of Pretoria (UP) institutionalized Lesson Study in teacher education programs in 2018, and ten project schools were chosen in late 2019 where this program would be implemented. This endeavor requires effective school-university partnership to support teachers' reflective practices.

In Japan, there was a policy initiative in 2008 to launch professional graduate programs for teacher education in order to improve teachers' abilities and better respond to societal needs. The University of Fukui (UF) sets up its own programs on Teacher Education, adopting a model that is unique among others. It sets up and carries out most of its programs within the actual field of practice at schools, to facilitate both collaborative and reflective lesson study approaches (Kimura, Kishino & Matsuki, 2011). UF has continued to play a key role in supporting local schools, and explores how the Japanese model is implemented in different cultural contexts linking to the undergoing Japan International Cooperation Agency (JICA) Partnership Program.

3. Objectives

The Lesson Study, which originated in Japan, is considered to be a framework for teachers to work collaboratively through reflective practices with their colleagues, in order to improve the teaching profession as a whole (Sato, 1997). Adopting the method of school-based reflective Lesson Study (Yanagisawa & Kishino, 2017), the main objective of this project is to build a sustainable teacher professional learning community network through collaboration between Japan and South Africa.

The method integrates principles of Wenger's (1998) Community of Practice (CoP), Senge's (1990) "learning organization," and Professional Learning Community (PLC).

The originality lies in its adoption of the lesson study as the preferred medium for fostering graduate-level research and learning by means of solving real issues in teaching and/or in-school operation. Furthermore, this method stands out in the sense that it makes university researchers and teachers work in close partnership with local schools and the board of education in order to ensure that the lesson study can be implemented as a long-lasting, sustainable practice.

In order to build a sustainable teacher professional learning community global network, we focus on clarifying the positive and negative factors influencing teachers' perceptions and actions of reflective Lesson Study and enriching the repository of diverse potential school-university partnerships.

4. Significance & Contribution

UP has restarted implementation of the school-based Lesson Study in Gauteng province in collaboration with the government and project schools since 2020. UF has committed to facilitating school-based reflective Lesson Study for decades and has built a collaborative school network across Japan. Given the growing interest in studying how Lesson Study is implemented in different cultural contexts and clarifying characters of effective CPD, it is essential to establish this joint research with UP. Moreover, UP's continuous effort and joint research with UF will shed light on other African countries in terms of cultivating a professional learning community of teachers in a sustainable way.

This joint project aims to establish a

professional learning community for school teachers and young researchers in both Japan and South Africa. Young domestic researchers work with international researchers to enhance their capacity in supporting teachers' learning. Enhancing the competency of young researchers through collaboration with overseas researchers is essential for the realization of future teacher education reform in Japan and around the world. It is expected that young researchers will develop and nurture their professions through this joint project.

This joint project between UF, which is pioneering the reform of teacher education in Japan, and the UP, which is making efforts to organize a learning community for school teachers through classroom research in South Africa, aims to create a sustainable network of professional learning communities for teachers. This will have an enormous social impact and will be used as a model for educational reform in Japan and abroad.

5. Exchange Plans

There are two main exchange activities planned for the joint research: onsite field trips and online networking sessions. Each year, UF and UP will host an onsite field trip to showcase the Lesson Study model at the level of local schools, which will include lesson planning (optional), lesson observation, post-lesson reflection, and teachers/students-interviews, if possible. Meantime, the host university is expected to arrange exchange opportunities for counterparts to communicate with relevant members from the local communities of education. Online networking sessions consist of participating in existing courses/seminars, initiating symposiums/forums, and establishing an online voluntary community of practices.

UF as a host university will have the following responsibilities:

Host online monthly reflective meetings during 2022~2023 as an existing university seminar with Japanese pre-service and in-service teachers who are enrolled as graduate students of UF, international teacher trainees based in UF, and university faculty and teachers from partner institutions in Malawi where reflective lesson study model has been implemented.

Host online roundtable on reflective practice in July & February of 2022 & 2023 respectively. This biannual roundtable on reflective practice is a signature event of UF since 2001. Both domestic and international sessions are held for educators to share and learn together. It is a two-day event. One day is for themed symposiums and the other day is for practitioners to present their narrative inquires of practices in small groups.

Host onsite field trips for Lesson Study immersion program in November of 2022 & 2023. Most of the schools in Fukui organize open research Lesson Study meetings in November. We could arrange school trips to different research subject lessons at different school levels. Ten days are appropriate to travel to see different Lesson Study styles in the neighborhood. Exchange meetings with local school principals and research leaders are also possible if it is requested in advance.

UF as a guest university will have the following responsibilities:

Participate in online Lesson Study workshops hosted by UP as an existing course during the first quarter of 2022. The purpose is to capacitate and support participating teachers and postgraduate students on fundamental attributes of Lesson Study (theory and practice). It includes one week

for theory workshop and three weeks to compete a portfolio of practice.

Participate in online graduate student writing sessions hosted by UP as an existing course during the second and third quarters of 2022 and 2023. The purpose is to support/develop post-graduate students as emerging researchers and to discuss and crystallize the working streams and research titles.

Participate in onsite field trips for Lesson Study immersion program hosted by UP at the fourth quarter of 2022 & 2023. The purpose is to share and co-create knowledge on the Lesson Study model.

Participate in online African Lesson Study Forum hosted by UP. The purpose is to create a network of Lesson Study in the African continent.

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