

How did Educators find Lesson Study?

As a teacher, I have started to introspect deeply on the content I teach, strategies used to teach the content as well as increased permeability to lesson critique by colleagues. In observing lessons, I now focus on the learning of students and, based on that, I provide support, coaching and mentorship to teachers in my department in the process of lesson study. Because of the practice of lesson study, teachers have come to value working together as an ever learning community of practitioners, exchanging ideas, classroom experiences, challenges and best practices through interacting and learning from each other continuously, providing opportunity for alternative ideas and thoughts, regardless of professional qualifications and experiences. Thus, yearly awards to teachers at my school based on learner performance have become more competitive.



Foster Mwanza (Mr.)
Science teacher, Head of Dept.
David Kaunda National Secondary School, Lusaka Province



As a Deputy Headteacher at a national technical secondary school, I ensure that teachers capacities have been built through in-service activities for learners' high academic performance. Through lesson study, my analytical skills in planning, implementation, observation and monitoring lessons have improved greatly. My interest and involvement in research has also been improved through continuous technical supports from the Ministry and JICA.

My teacher's planning and lesson delivery skills learnt in lesson study have started bearing fruits. Through learner-centred methodologies, learners are acquiring lifelong knowledge, skills, value and positive attitude towards science. Kapiri girls technical school stands as an example in sustaining lesson study and community of learning by teachers.

Emelia Kunda Kasonde (Ms.)
Deputy Headteacher, Kapiri Girls National Technical Secondary School, Central Province

The injection of Lesson Study into the School Programme of In-service for the Term (SPRINT) through School Based Continuing Professional Development (SBCPD) has revolutionised the practice of teaching for improved learning outcomes. Other than that, the Lesson Study has helped to strengthen the efficacy of the structure to support meaningful Continuing Professional Development. Since its inception in 2005, evidence exists to showcase the gains from Lesson Study. Teachers are collaborating more through collaborative lesson planning and are using learner centred pedagogies. The Lesson Study has continued to build teachers' analytical skills with a definite shift from a focus on superficial aspects of lessons to productive teaching and learning.



Esvah Chizambe (Ms.)
Assistant Director - Teacher Education
Directorate of Teacher Education & Specialised Services, Ministry of General Education

Contact: Ministry of General Education
Teacher Education section, Directorate of Teacher Education & Specialised Services,
c/o Curriculum Development Center, P. O. Box 50093 Lusaka 10101 Zambia
Tel: +260-21-1-255235 / 250663

Lesson Study in Zambia

for Effective Teacher Professional Growth & Improvement of Students' Learning

Lesson Study is a problem solving process of professional development for teachers, which has been practiced in Japan from as far back as 19th century and is still being implemented by teachers in Japanese schools. In this approach, groups of teachers regularly meet at school level to plan, implement, evaluate and improve lessons collaboratively as their **continuing professional development (CPD)** activity.

Lesson Study practice was adapted by the **Ministry of General Education in Zambia** in order to contextualize it to suit the Zambian school context and introduced to Primary and Secondary schools as a tool for **teachers' continuing professional growth**. This has been supported by **Japan International Cooperation Agency (JICA)** through technical cooperation projects since 2005, especially for the teachers of Mathematics and Science. Since 2016, the practice has involved lecturers at Colleges of Education to further improve the **quality of lessons in the classroom** by strengthening **linkage between in-service and pre-service education**.



Republic of Zambia, Ministry of General Education
Japan International Cooperation Agency (JICA)



What is Zambian Lesson Study?

Lesson Study practice of teachers is now found in more than 50 countries in the world. It usually follows "Plan - Do - See" process of activities conducted by teachers and educators. In planning, a lesson is prepared by a teacher or a group of teachers with specific objective and focus. In doing, the planned lesson is conducted by a teacher in the classroom, while other teachers observe with specific viewpoints. After the lesson, thorough discussion is held to review and improve the lesson and technique of teaching based on the learners' reactions and thoughts observed in the lesson.

In Zambia, Lesson Study has **8 steps of activities** which go through "Plan - Do - See" process twice as shown in the diagram below (1. Defining problem of teaching/learning as objectives for Lesson Study, 2. Planning lesson as a group, 3. Conduct lesson in the classroom, 4. Having discussion on the lesson for improvement, 5. Planning the lesson with new idea, 6. Conduct lesson again, 7. Having discussion to confirm the changes, 8. Recording learning through Lesson Study). This arrangement was adopted to provide teachers at schools with more opportunities to prepare and conduct lessons together as a **community of learning**.

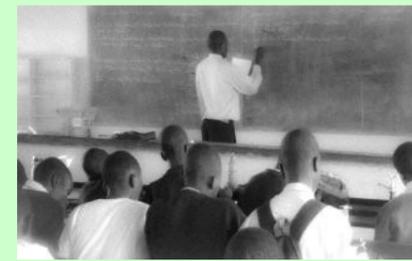
Process of Lesson Study in Zambia



In Zambian Lesson Study, there is **no "Trainer" and "Trainee"**. Teachers themselves are always main actors in sharing knowledge and experience. Their **focus is always on learners in the classrooms**. School managers are expected to support teachers in conducting Lesson Study administratively and technically. It is believed that this approach directly addresses concerns of teachers at each school and continuously improves their lesson and learning of learners with little cost and change of system.

Why was Lesson Study introduced?

Lessons in the Classrooms before Lesson Study



Teachers at Primary and Secondary schools in Zambia made efforts for a long time to overcome issues in teaching such as big class sizes, insufficient teaching materials, shortages of textbooks and few opportunities of participating in training courses. However, researches conducted in 1990's and 2000's indicated that the environment coupled with these challenges tend to lead teachers to frequently conduct "Chalk & Talk" lessons.

As a result, learners were often guided to concentrate on **copying writings of teachers in their notebooks** without having enough opportunities to think and exchange ideas. Unfortunately, national and international assessments, especially in mathematics and science, showed that performance of Zambian learners were not satisfactory comparing with expected outcomes. This situation led the Ministry of General Education to introduce "Lesson Study" of teachers as part of initiatives to improve teachers' knowledge and skills as well as **learners' performance** as its effect.

Lesson Study of Teachers as Continuing Professional Development (CPD)

Improving Teachers' Skills of Lesson Planning & Delivering



Through the practice of Lesson Study, it is expected that teachers obtain **new idea of preparing and conducting lessons** as well as **experience of using variety of methodologies in teaching**. In Lesson Study, this change in teachers takes place gradually but firmly based on their **continuing efforts**. Therefore, it is important to continue the practice as **life-long learning** of teaching professionals and maintain the quality as learning community.

Enhancing Learners' Subjective (Active) Learning

If teachers get new knowledge and skills of teaching, quality of Learners' learning could be improved as a result of Lesson Study. In the technical cooperation projects with JICA, **problem solving and inquiry teaching methods** have been promoted in mathematics and science lessons. To conduct lessons with these methods, **intensive study of teaching/learning materials (Kyozaï-Kenkyu practice)** have been emphasized among the educators and teachers. It is believed that, if teachers effectively apply these practices in preparing lessons, learners' opportunities of having "Higher Order Thinking", "Practicing activities", "Conducting experiments", "Collaborative Learning" and "Recording their Learning" are increased.



Expected goal of the Ministry is to provide learners with abilities of critical, creative and analytical thinking.



How is Lesson Study supported by Policies and Scaled up in Zambia?



Photo: Atsushi Shibuya/JICA

Lesson Study activities of teachers in Zambia are supported by policies on education. Zambia has adopted the position that continuous improvement of teachers' knowledge and skills based on School-based Continuing Professional Development (CPD) is a crucial process as well as an obligation for all teachers.

The national education policy, "Educating Our Future" (1996), and the "Teaching Profession Act" (2013) cite CPD as cardinal for the professional growth of a teacher.

Both documents emphasize that teacher education is a continuing process that must be sustained throughout a teacher's career. This is because education is not static, but dynamic, promoting change in response to the needs and expectations of the society (Educating Our Future, 1996).

School-based in-service training in Zambia is conducted within the school, through the in-service training framework; the **School Program of In-service for the Term (SPRINT)**. Under SPRINT, there are components of Teacher Group Meeting (TGM), Grade Meeting at Resource Center (GRACE) and Subject Meeting at Resource Center (SMARC). All teachers are encouraged to participate in CPD activities through the above platforms.



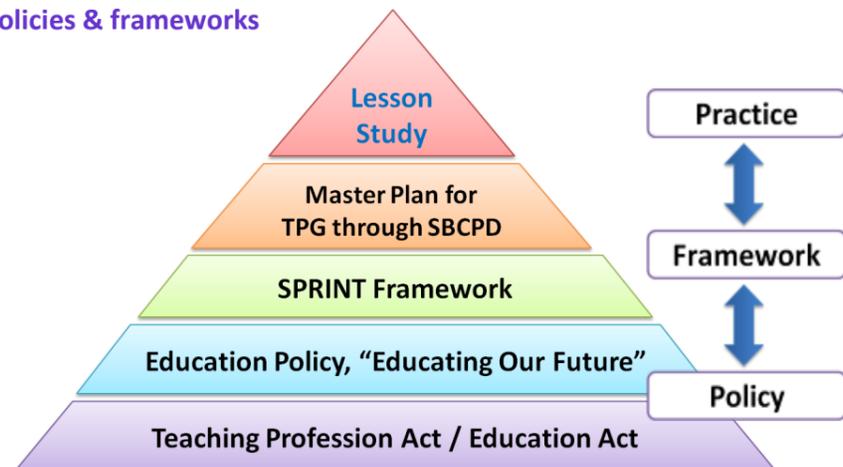
Photo: Atsushi Shibuya/JICA

In addition, all Head Teachers and Deputy Head Teachers are required to undertake Headteachers' Meeting (HIM) and School In-

service Monitoring (SIMON), to monitor CPD activities.

Lesson Study in Zambia was not introduced as a new project or program, but a new practice conducted in the existing framework of SPRINT. Regular meetings of teachers and school staff under SPRINT such as TGM and HIM have been used as a venue for Lesson Study.

Lesson Study supported by Policies & frameworks

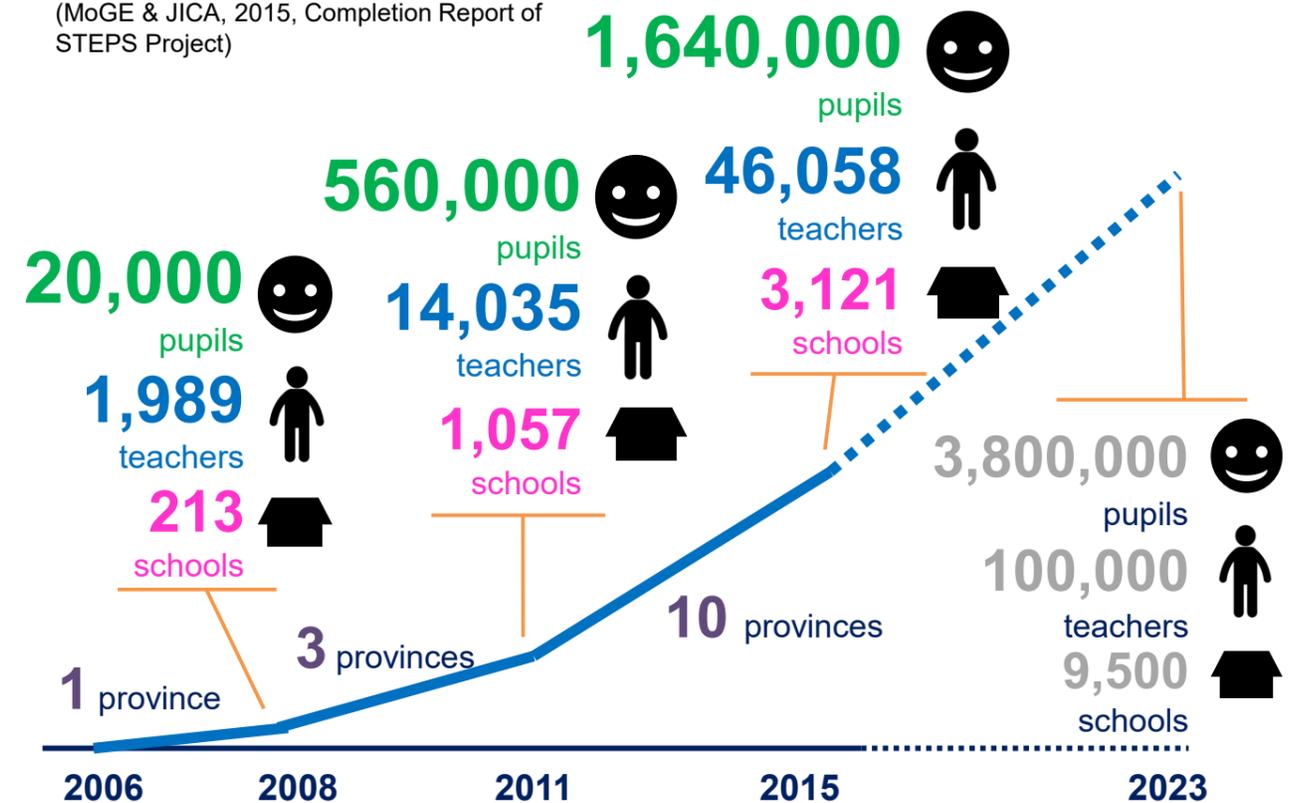


Introduction and expansion of Lesson Study has been strategically managed by the Ministry of General Education following "Master Plan for Teacher Professional Growth (TPG) through School-based Continuing Professional Development (SBCPD) Program". The plan describes how the practice could be extended to all primary (Grade 1 - 7) and secondary (Grade 8 - 12) schools in the country and how the quality of Lesson Study and lessons in the classroom are improved.

In the strategy of Master Plan, a **phased approach** is taken for the expansion. Lesson Study was firstly introduced in Central province in 2006 as a pilot, then extended to two more provinces after 2008. After five years of implementation, the practice involved all the ten provinces in Zambia and reached 46,058 teachers by the end of 2015. The Ministry is still working to enable all the teachers (approx. 100,000 as of 2016) in the country to have opportunities of conducting Lesson Study.

Scaling-up Lesson Study

(MoGE & JICA, 2015, Completion Report of STEPS Project)



*Numbers at 2023 are target (100%) as of 2016

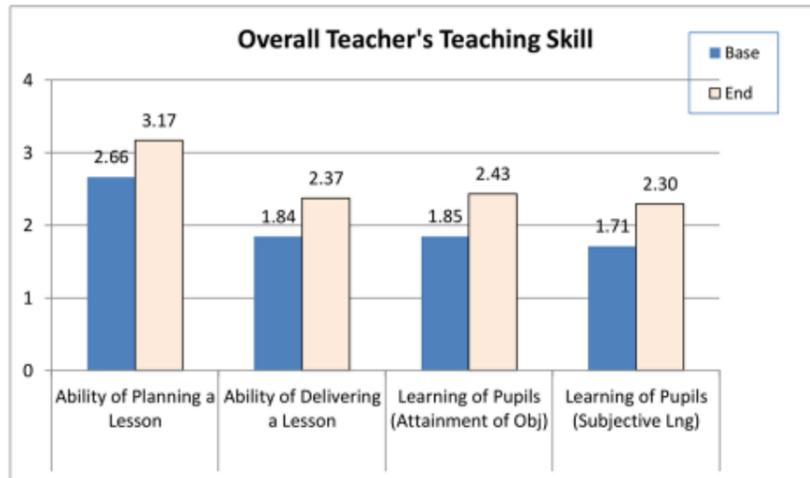
In the introduction of Lesson Study, the practice is usually started from **mathematics and science** subjects, since these subjects are given special focus in Zambia's national development plan ; however, with initiatives of the Ministry and schools, it was extended to **all the subjects and all the grades** in many schools.

Together with policies and framework for enhancing Lesson Study of teachers, the Ministry is making big efforts in improving basic education and teacher education curriculum and providing teaching/learning materials to schools for the better implementation of Lesson and Lesson Study at schools in the country. Zambia's journey in improving quality of lessons at school through Lesson Study is still continued.

What are the Impacts of Lesson Study?

Lesson Study has produced positive results, which have been gradually manifested in the data on **improvement of teachers' teaching skills, changing learners' behavior and their performance in the national examination pass rates**. The more the quality of Lesson Study improves, the more evident is the impact.

Research practice is also promoted in parallel with Lesson Study implementation not only to assess the impact of the practice but also strengthen research culture among educators. Papers are compiled in periodical publications of **"Zambia Journal of Teacher Professional Growth (ZJTPG)"**.



Improved Teachers' Skills & Learning of Pupils

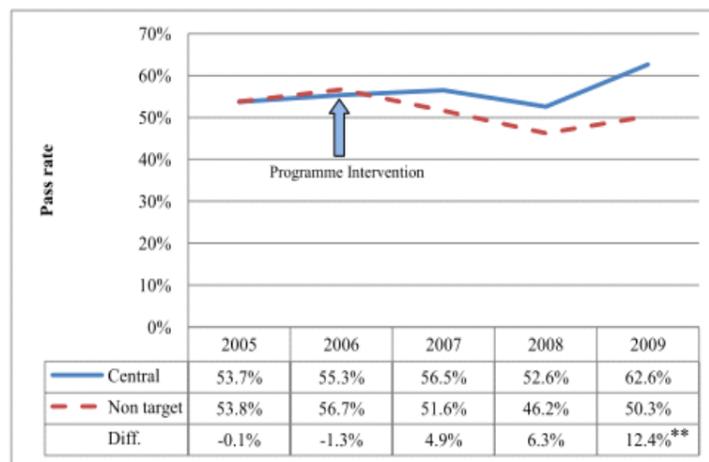
(MoGE & JICA, 2015, Completion Report of STEPS Project)

Teachers' skills in planning and delivering lessons were examined with level of pupils' leaning in their lessons. Improvements were found on the teachers doing Lesson Study between 2012 and 2015.

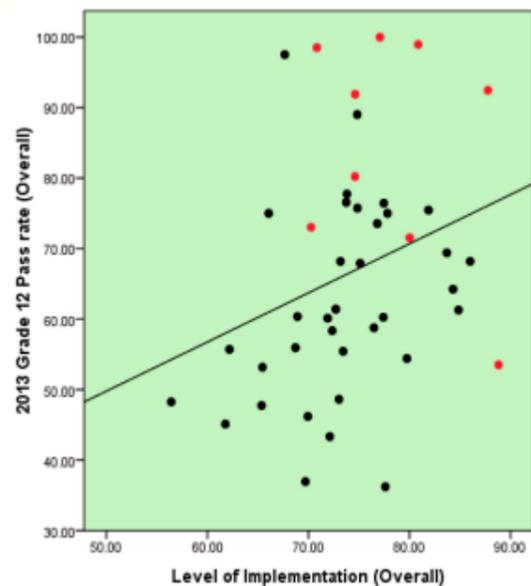
Improved Examination Pass Rate for Science

(MoGE & JICA, 2010, Impact Survey of Lesson Study)

Impact research revealed that the province introduced Lesson Study had better grade 12 students performance in national examination comparing with the results in other provinces which had not started the practice at that time.



**statistically significant (p < .01)



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Relations between a level of Lesson Study implementation and grade 12 students' pass rate in national examination was examined in a research. It was found that there was a positive relation between two factors. (Level of Lesson Study was assessed with teachers' and managers' evaluation on the quality of practice.)

Quality of Lesson Study & Students' Pass Rate

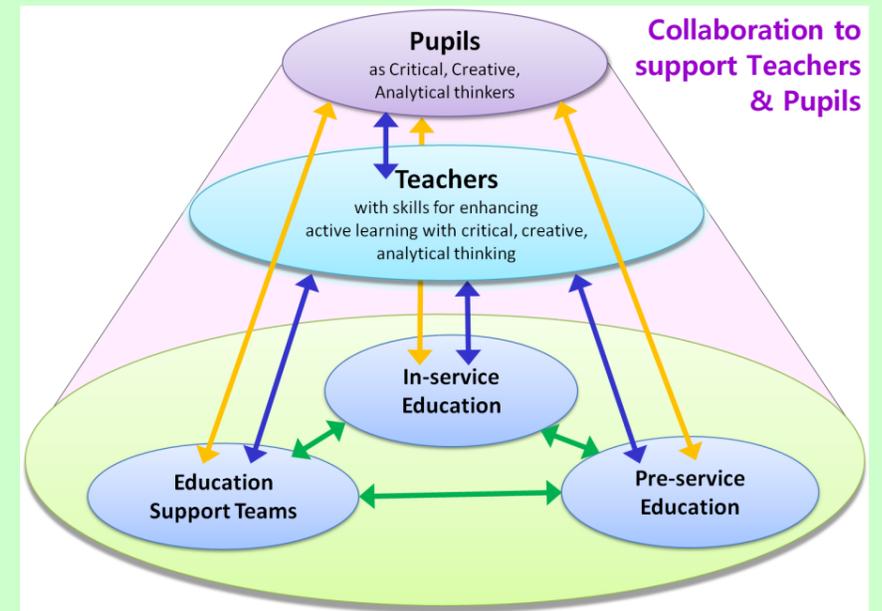
(MoGE & JICA, 2015, Impact Survey of Lesson Study in Zambia)

What is the Next Step of Zambian Lesson Study?

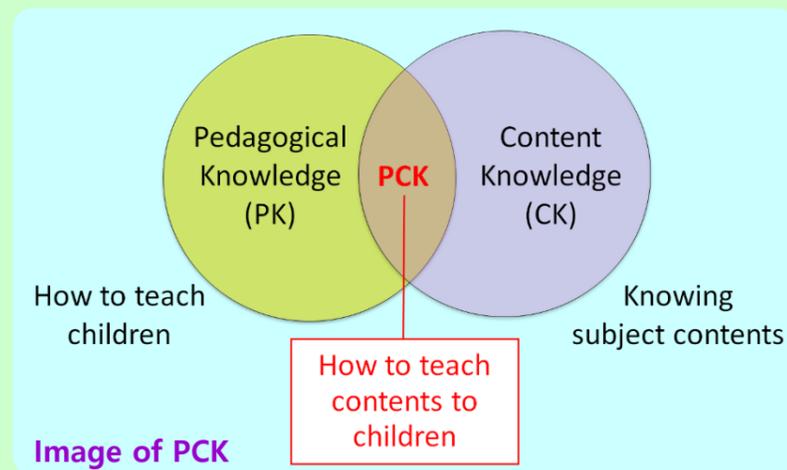
While Lesson Study activities of in-service teachers are extended to more numbers of primary and secondary schools in Zambia, the Ministry in collaboration with JICA has started to support **Colleges of Education** since 2016 to conduct Lesson Study in collaboration with teachers in primary and secondary schools. Colleges are expected to be **core centers to improve the quality of Lessons and Lesson Study** in the country. Under the initiative, college lecturers (teacher educators) will be visiting schools to work with teachers in developing sample lesson plans to be shared with other schools as good samples. At the same time, lecturers will get real information in classrooms such as how learners think and make mistakes. This knowledge could be used to develop lecture guides and modules for college students, so that teacher education at college level could be practically improved. Thus, through Lesson Study as a collaborative work by college lecturers and teachers at schools, it is expected that **in-service and pre-service teacher education would be linked** to improve their contents.

This linkage will also be supported by **Education Support Teams (ESTs)** at National, Provincial, District and Zone levels, as the teams are supporting the conduct of Lesson Study in the framework of SPRINT.

In the Master Plan for Teacher Professional Growth, the Ministry of General Education aims to strengthen the linkage between pre-service & in-service and ensure that **teachers have skills for enhancing active learning** resulting in **learners who can think critically, creatively and analytically** by 2030.



In the collaborative work of lecturers and school teachers, the focus is on **Pedagogical Content Knowledge (PCK)** as knowledge to be strengthened to enable them conduct lessons which enhance learners' critical, creative and analytical thinking. In Zambia, content knowledge (which deals with subject contents) and pedagogical knowledge (which deals with teaching methodology) were generally taught separately at university and college level for a long time. It is believed that this contributed to the teachers at school level experiencing difficulties in applying a variety of teaching methods according to topics and objectives as outlined in the syllabus. Therefore, lecturers and



teachers will be requested to use PCK in the process of developing sample lesson plans and teaching materials through Lesson Study.

Technical inputs on PCK and support to activities of lecturers and teachers will be organized by the **National Science Center (NSC)** which will act as a hub for bridging in-service and pre-service teacher education through training of educators, producing teaching/learning materials and conducting research.