Republic of Indonesia

FY2016 Ex-Post Evaluation of Technical Cooperation Project

"Program for Enhancing Quality of Junior Secondary Education (Program Peningkatan Kualitas SMP/MTs) (PELITA)"

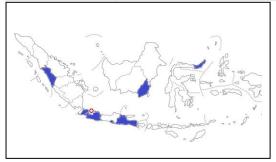
External Evaluator: Masako IWASHINA, ICONS Inc.

0. Summary

The project aimed to improve the quality of junior secondary education nationwide by strengthening the capacity of central and regional educational administration to promote Lesson Study¹ (LS) and participatory school-based management² (PSBM). The objective of the project is consistent with the educational policy of Indonesia in respect to improve the quality of junior secondary math and science education at the planning and completion stage of the project and development needs of Indonesia and the aid policy of Japan, and makes good use of Japan's comparative advantage, thus its relevance is high. The project purpose and overall goals were almost achieved, and the trend of higher pass rates of the National End-of-Level Examination (Ujian Nasional; UN) was confirmed at schools that had conducted LS and PSBM, and many other positive impacts were confirmed. Therefore, effectiveness and impact are high. Although the project period was as planned, the project cost exceeded the plan. Therefore, efficiency is fair. Regarding sustainability, some minor problems have been observed in terms of the policy background and organizational and financial aspects. Therefore, sustainability of the project effects is fair.

In light of the above, this project is evaluated to be satisfactory.

1. Project Description



Project Locations ('☆' indicates Jakarta, the Capital of Indonesia)



School-Based Lesson Study in SMPN 4 Banjarbaru in South Kalimantan Province

¹ Normally, Lesson Study consists of planning, implementation, and reflection on a lesson. At the planning stage, one or multiple teachers plan a lesson. At the implementation stage, the planned lesson is executed and observed by fellow teachers as a big characteristic. Finally, at the reflection stage, the teacher who conducted the lesson and the observers exchange and share findings, opinions, and views based on observation of the lesson. This practice improves teachers' knowledge about subjects and lesson materials, their repertoire of lesson methods, and their understanding of children. (The ex-ante evaluation report)

² PSBM intends to strengthen school-based management responsiveness to local and school needs through the use of parent and community participation.

In the Republic of Indonesia, since the Decentralization law was put into effect in 2001, educational administration has also been decentralized to enhance response to local needs. Moreover, school management has been enhanced to meet the diverse needs of schools. In reality, however, at the time of this project planning, local governments as well as individual schools still lacked the capability to analyze and solve their own problems by themselves.

The Japan International Cooperation Agency (JICA) has cooperated with the government of Indonesia since 1998 to develop models on PSBM and LS, along with implementation of the developed models at the district level. These models aimed to enhance the capability of local administration and school management by various stakeholders such as educational administrators, school principals, teachers, parents, and the community, as well as at enhancing the schools' capabilities of responding to the issues by enhancing teachers' capabilities to improve their lessons. Through implementation of these models, improvement of school management and enhancement of the quality of education in the target districts³ have been observed, such as improved communication among educational stakeholders, strengthened commitment from school principals and teachers, improved lessons, and improved motivation and understanding of students on lessons.

The project aimed to improve the relevance and reliability of the educational administration and school management and to enhance the quality of education through enhancing the capacity to cope with the needs of local communities and schools, and it was implemented in order to disseminate the models on PSBM and LS (which were developed through JICA's past cooperation in the target sites) as good practices to improve quality in education nationwide.

1.2 Project Outline

Overall Goal		Quality of junior secondary education is enhanced through lesson study (LS) and participatory school-based management (PSBM) extensively in the nation.			
Project Purpose		The capacity of central and local governments ⁴ for implementing LS and PSBM nation-wide is strengthened.			
Output(s)	Output 1	<at level="" national="" the=""> Output 1-1: The capacity of Ministry of Education and Culture (MOEC) and Ministry of Religious Affairs (MORA) is developed for implementing its policy to introduce LS nation-wide. Output 1-2: The capacity of Institute for Quality Assurance for</at>			

³ The target sites consist of: (regarding PSBM) Brebes and Pecalungan Districts in Central Java Province, Bitung City in North Sulawesi Province, Serang City and Serang and Pandeglang Districts in Banten Province (target sites of "Regional Education Development and Improvement Program (REDIP-3)"); and (regarding LS), Sumedang District in West Java Province, Pasuruan District in East Java Province, Bautul District in Yogyakarta Province (target sites of "Strengthening In-service Teacher Training of Mathematics and Science Education at Junior and Secondary Level (SISTTEMS)"). The administrative division structure of Indonesia is: province - district/city - county - village/ward (as of April 2017, there are 34 provinces and 514 districts/cities throughout the country).

⁴ "Local governments" means provinces, districts and cities.

		Teachers (LPMP)s ⁵ and Regional Center for Education and Training (Balai Pendidikan dan Pelatihan, hereinafter referred to as Balai Diklat/ RCET) is developed for conducting training on LS. Output 1-3: The capacity of MONE is developed for introducing essence of PSBM to national program.				
	Output 2	<at and="" new="" reference="" sites="" target="" the=""> Output 2-1: At the LS reference sites⁶, a showcase of LS practice is developed. Output 2-2: At the LS new target sites⁷, a showcase of MGMP-based LS implementation mechanism is developed. Output 2-3: At the PSBM reference sites⁸, the capacity of the district/city governments is developed for PSBM with their own resources.</at>				
Total (Japanes		799 million yen				
Period of Co	ooperation	March 2009 – March 2013				
Implementin	ng Agency	Ministry of Education and Culture (MOEC) Ministry of Religious Affaires (MORA)				
Other Relevan						
Supporting Organization		International Development Center of Japan (IDCJ)				
		- Development Study "Regional Education Development and Improvement Program" (REDIP-1: 1999-2001), (REDIP-2: 2001-2005), Technical Cooperation Project (REDIP-3: 2004-2008)				
Related Projects		- Technical Cooperation Project "Project for Development of Science and Mathematics Teaching for Primary and Secondar Education" (IMSTEP: 1998-2003), (Follow-up: 2003-2005)				
		- Technical Cooperation Project "Strengthening In-Service Teacher Training of Mathematics and Science Education at Junior Secondary Level" (SISTTEMS: 2006-2008)				
		- World Bank "Better Education through Reformed Management and Universal Teacher Upgrading Project" (BERMUTU: 2008-2013)				

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⁵ LPMP was under the Office of Human Resources Development of Education and Culture and Quality Assurance of Education, but following the Office's reorganization in 2014, it is now under the Directorate General of Primary and Secondary Education Management at MOEC.

⁶ The LS reference sites are the target sites of SISTTEMS, a predecessor project of this project, namely: Sumedang District in West Java Province, Pasuruan District in East Java Province, and Bautul District in Yogyakarta Province (shown in blue in Figure 1). Reference sites already have some experience from the predecessor project and are expected to be a model for other regions.

⁷ Banjarbaru City in South Kalimantan Province, Padang City in West Sumatra Province, and North Minahasa District in North Sulawesi Province (shown in green in Figure 1).

⁸ The PSBM reference sites include some of the target sites of REDIP-3, a predecessor project of this project, namely: Serang City and Serang and Pandeglang Districts in Banten Province (shown in orange in Figure 1).

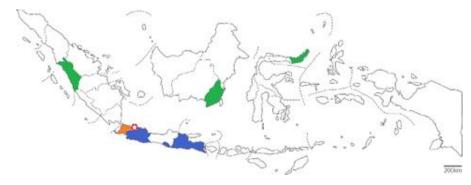


Figure 1: Classification by Type of Target Area (LS Reference Site, LS New Target Site, PSBM Reference Site)

1.3 Outline of the Terminal Evaluation

1.3.1 Achievement Status of Project Purpose at the Terminal Evaluation

The project purpose was recognized as mostly achieved. At the national level, both LS and PSBM (in a wider interpretation) were incorporated into the national programs (e.g. Novice Teacher Induction Program (Decree No. 27, 2010), inclusion of LS into the standard curriculum of Balai Diklat/RCET, and School Operational Assistance (Bantuan Operasional Sekolah: BOS)); at the provincial level (33 provinces), human resources as a dissemination force for national policies were developed and training/dissemination activities had been conducted; at the district/city level, LS and PSBM were implemented. Although data about the implementation status in non-target sites was not available, it was assumed that human recourses at the provincial level were supporting districts and cities.

1.3.2 Achievement Status of Overall Goal at the Terminal Evaluation

The overall goal was likely to be achieved, judging from the achievement status of each indicator and an endline survey (regarding teaching methods, improvement in the learning process, etc.). However, a re-examination of the indicators in order to more clearly show the contribution level of the project was required. The UN pass rates, one of the four indicators of the overall goal, had been improving and had already achieved mostly 99% and more in 2010/2011 both in the national average and at the target sites. The UN pass rates were proposed to be eliminated as the overall goal indicator at the ex-post evaluation because the UN pass rates had already achieved a high level but the overall goal indicators were the ones that should be set to be achieved about three to five years after the project completion. Dropout and repetition rates were available only until 2009/10 and realization of effects could not be evaluated for the PELITA Project that started in March 2009.

Teachers' pass rate for their professional certification was deleted from the indicators due to the impossibility of comparing yearly changes due to a change in the teachers' professional certification system (the teacher's competency exam was added to the existing portfolio system⁹). These changes about the indicators, as well as the reasons for them mentioned above, are considered appropriate.

1.3.3 Recommendations from the Terminal Evaluation

In the Terminal Evaluation, three points were recommended to the counterpart organizations from the viewpoint of contributing to the quality improvement of the junior secondary education in Indonesia in the mid-long term: (1) Ensuring the quality of the Induction Program to be launched by the Center For Education Personnel Development in the Office of Human Resources Development and Quality Assurance, MONE (PUSBANG-TENDIK¹⁰), (2) Utilizing reference sites more strategically for effective dissemination of LS, (3) Expanding and strengthening resource persons¹¹ for the nationwide dissemination of LS. From the viewpoint of the adequate evaluation of the achievement of the overall goal at the time of the ex-post evaluation, (4) Re-examination of indicators for the overall goal and data consolidation was also recommended.

2. Outline of the Evaluation Study

2.1 External Evaluator

Masako IWASHINA, ICONS Inc.

2.2 Duration of Evaluation Study

This ex-post evaluation study was conducted with the following schedule:

Duration of the Study: August 2016 – August 2017

Duration of the Field Study: November 10, 2016 – December 19, 2016 and February 26, 2017 - March 15, 2017¹²

2.3 Constraints during the Evaluation Study

It is difficult to determine the genuine effects of PELITA for the purposes of the evaluation (mainly of impact and sustainability of the project) since, as a successor program to PELITA, Short-Term Training for the Institutes of Teachers Training and Education

⁹ Qualification certification system to evaluate and judge the four abilities (teaching method, expertise, personality, sociability) of individual teachers.

10 PUSBANG-TENDIK was dissolved in 2014 and re-organized as the Directorate General of Teachers and

Education Staff in 2015.

¹¹ Resource persons refer to human resources who can conduct training, workshops, and on-site guidance for disseminating LS with an appropriate quality. Lecturers at teacher training universities and LPMPs are called resource persons in many cases.

¹² The field study was conducted in the same period of the ex-post evaluation of the Project for Strengthening In-Service Teacher Training of Mathematics and Science Education at the Junior and Secondary Level (SISTTEMS).

Personnel (ITTEP, 2013-2017) continues to support resource universities ¹³, partner universities ¹⁴, and the Directorate General of Primary and Secondary Education Management (DGPSEM) of MOEC on LS.

The evaluation framework was as follows: interviews at the implementing agency and other relevant agencies in the seven target provinces; questionnaire surveys (for beneficiaries) of principals of 216 schools in total which accounted for around 15% of each of the general junior secondary schools and religious junior secondary schools in the target districts; and semi-structured interviews based on questionnaires of 89 mathematics and science teachers and 110 Grade 9 students at 22 schools (4 teachers and 5 students per school), which the external evaluator visited and are different from the above-mentioned 216 schools. Surveyed beneficiaries and visited schools were randomly chosen from school lists submitted from the District Education and Culture Offices (For the details, see "3.2.2.1 Achievement of Overall Goal").

3. Results of the Evaluation (Overall Rating: B¹⁵)

- 3.1 Relevance (Rating: (3)16)
- 3.1.1 Consistency with the Development Plan of Indonesia

The Government of Indonesia has a goal of economic and social prosperity and the welfare of Indonesian citizens in the National Medium-Term Development Plan (RPJMN 2004-2009) and recognizes improving the quality of human resources through education, public health, and social welfare as the main challenges of development. The Strategic Plan of the Ministry of National Education (RENSTRA 2005-2009) emphasized (1) equitable expansion of access, (2) improvement of quality, relevance, and competitiveness, and (3) improvement of governance, accountability, and public image, and it promoted the enhancement of community participation, upgrading of teachers' capacity, and improvement of educational administration and finance. Therefore, the project was consistent with the national development policy during the planning period of the project. At the completion of the project, too, relevance of the project was high regarding the enhancement of PSBM and the improvement of quality and relevance of educational services in that the project was consistent with RPJMN: 2010-2014, which is the basic strategy of national development and was enforced in February 2010 and RENSTRA 2010-2014. In addition, at the completion of the project, LS which the project supported was incorporated into the Novice

¹³ Three universities with which the project cooperated since IMSTEP, a predecessor project: Universitas Pendidikan Indonesia (UPI), Universitas Negeri Malang (UM), and Universitas Negeri Yogyakarta (UNY).

¹⁴ Universitas Negeri Padang, UNLAM, and Universitas Negeri Manado, wrestled with LS in the project. These three universities were not able to "conduct training, workshops, and on-site guidance for disseminating LS with an appropriate quality" at the time of the project commencement because they started to cooperate with this project, not with the predecessor, and they were called partner universities to distinguish them from resource universities.

¹⁵ A: Highly satisfactory, B: Satisfactory, C: Partially satisfactory, D: Unsatisfactory

¹⁶ ③: High, ②: Fair, ①: Low

Teacher Induction Program (Decree No. 27: 2010) and all novice teachers nationwide were to receive training on LS from 2013. In the line of MORA, LS was incorporated into the standard in-service teacher training curriculum of the National Center for Education and Training (Pusdiklat/ NCET) and Balai Diklat/RCET from 2012. Therefore, the consistency with the Indonesian national development policy is high.

3.1.2 Consistency with the Development Needs of Indonesia

The consistency of the project with the development needs of Indonesia is high. The Government of Indonesia put a high priority on achieving a 9-year compulsory education and aimed to increase the Gross Enrolment Rate of junior secondary education from 85% in 2006 (MONE, 2006) to 95% by 2009. Considering that the Gross Enrolment Rate of senior secondary education was 32% (MONE, 2006), two-thirds of the junior secondary students would start working after graduation, which indicated the importance of providing a good quality education in junior secondary education to enable students to acquire the knowledge and capacity to be utilized after their graduation. In this circumstance, REDIP developed the model of PSBM to change the traditional uniform and inefficient school management to the one that is based on the initiatives of schools and the needs of the parents and the community. SISTTEMS developed a model of in-service teacher training by applying LS, which plays a key role in changing the traditional reception model of lessons that attach importance to memorization to lessons placing importance on the learning of every student. These models are practical models whose effects were confirmed in implementation at the district level and were recognized as effective for education development in Indonesia. PELITA is a project that took over the content and method concerning LS from SISTTEMS and the content and method concerning PSBM from REDIP, and consistency with the needs of Indonesia was high even at the completion of the project.

3.1.3 Consistency with Japan's ODA Policy

The project was consistent with Country Assistance Program for Indonesia (November, 2004), Japan's Official Development Assistance (ODA) policy, which supported realizing a just and democratic society and included education as one of its important components. In addition, Japanese ODA's upper-level policies in education, such as Basic Education fir Growth Initiatives (BEGIN, 2002), support education quality improvement (science and mathematics education, teacher education and training, and school administration and management). Furthermore, the results of the past programs in the basic education sector were highly recognized as a contributor to quality improvement by the Indonesian Government and other development partners, and the comparative advantage of Japan in the project is high.

Accordingly, the project was highly relevant to the country's development plan and development needs, as well as to Japan's ODA policy. Therefore, its relevance is high.

3.2 Effectiveness and Impact¹⁷ (Rating: ③)

3.2.1 Effectiveness

3.2.1.1 Achievement of Project Purpose

<u>Project Purpose: The capacity of central and local governments for implementing LS and PSBM nationwide is strengthened.</u>

The capacity of the central government for disseminating LS and PSBM was strengthened through: development of guidelines of MOEC and MORA for disseminating LS; implementation of joint monitoring of school level efforts for LS and PSBM; training of national trainers of LPMP and Balai Diklat/RCET in all areas in Indonesia; integration of LS into the standard training curriculum of LPMP of the target provinces and Balai Diklat/RCET in all areas of Indonesia; and development of BOS guidelines based on the experience of PSBM.

Strengthening the capacity of local governments at the target sites was largely achieved through the following outputs: strategies to disseminate LS in all the target sites were developed; More than 40 facilitators¹⁸ were trained for the technical support for disseminating LS to non-target districts and provinces; and reference schools for School-Based Lesson Study (Lesson Study Berbasis Sekolah: LSBS) were developed. The budget for the District Education and Culture Office (Dinas Pendidikan: Dinas P&K) and school levels to organize MGMP applying LS was secured, monitoring by resource persons from LPMP and resource universities to MGMP applying LS was done, and MGMP applying LS were conducted for at least two subjects in each home base ¹⁹. BOS was steadily distributed for the quality improvement of schools and the activity expenses except for personnel expenses for the reduction of burdens on parents in all areas of Indonesia.

With the above outputs, the project purpose of strengthening the central and local capacities to implement LS and PSBM was largely achieved. As a result of rigorously recommending the model of PSBM in a narrow sense, such as the district education development team (Tim Pengembangan Pendidikan Kecamatan (TPK)) and the block grant that JICA formerly introduced in the PSBM component, a mode of PSBM that can interact with LS activities that was expected at the planning stage was not suggested, and activities related to LS and activities related to PSBM were implemented as separate

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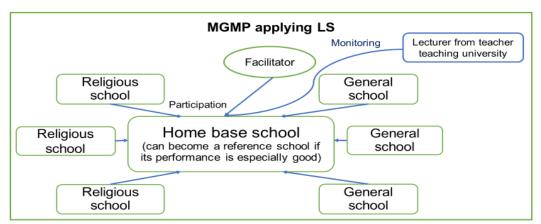
¹⁷ Sub-rating for effectiveness is to be considered along with impact. In general, effectiveness covers the situation at the completion of the project and impact covers the situation at ex-post evaluation. However, for the convenience, situation at the ex-post evaluation is described in effectiveness.

¹⁸ Facilitators are human resources who can implement LS in an appropriate manner. Principals as well as other teachers can become facilitators.

¹⁹ Leading schools when schools implement MGMP applying LS.

components²⁰. The project purpose, however, did not mention fusing the two components, and regarding dissemination to the non-target districts in the target provinces, West Java, East Java²¹, and North Sulawesi Provinces (out of the seven target provinces) organized dissemination workshops ²² at the completion of the project. In addition, South Kalimantan and West Sumatra Provinces organized dissemination workshops in 2014 after the project completion. Judging from the above outputs, the capacity for implementing and disseminating the project contents was strengthened enough. Therefore, effectiveness of the project is high.

Therefore, the project largely achieved project purpose.



School Based Lesson Study is conducted at each religious and general junior secondary school. Schools with good performance in LS are recognized as reference schools, so home base schools are not necessarily reference schools. At the time of the ex-post evaluation, reference schools had been chosen based not only on the performance level of LS but on various factors (see "3.4 Sustainability"). Facilitators are selected from teachers and principals who understand LS well by recommendation from themselves or others.

Figure 2: MGMP Applying LS and School Based Lesson Study

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²⁰ PELITA Terminal Evaluation Report, p.31. The project identified TPK, block grant, and cooperation between ordinary junior secondary schools and madrassas as the three fundamental elements in the PSBM model for nationwide dissemination. A TPK consisted of principals and teachers of junior secondary schools in the target sites, officials at District Education Offices, field consultants employed by the project, etc. As a result of the activities of the teams, improvement in communication and relationship of trust between schools and between teachers and students was confirmed at the mid-term review of the project. On the other hand, TPKs varied regarding the frequency of activities being done and their surroundings, and some TPKs that were not provided with any activity fund in the project became inactive because no allocation of activity funds was made by the local government (PELITA Mid-Term Review Report, p.11). However, since it was difficult to maintain TPKs that did not exist in the conventional administrative system and to allocate funds from governments and block grants were not inevitable because BOS had already been allocated at school level, the terminal evaluation study named the above interpretation of PSBM as "narrower interpretation of PSBM" and common interpretation of SBM as "PSBM in a wider interpretation and concluded that it should be re-examined whether it was appropriate to emphasize the above-mentioned narrow interpretation of PSBM as a requisite for a model to disseminate PSBM nationwide (PELITA Terminal Evaluation Report, p.26).

²¹ The budget for the dissemination activity to other districts in East Java Province was allocated from the Provincial Dinas P&K in FY 2013, and the budget allocation from LPMP and Balai Diklat / RCET specified in Indicator 1-2-2 of the project started in 2014 after completion of the project.

²² They are called "socialization" in Indonesia. Socialization is the first step for dissemination, and after that, training sessions are provided with the support of regional training centers, and then the role of school principals is enhanced (PELITA Terminal Evaluation Report, p.17). Therefore, it is assumed that it includes activities such as introductory workshops. In a JICA material for the project, socialization is explained as that in the model of SECI (Socialization-Externalization-Combination-Internalization).

Table 1: Achievement of Project Purpose

Project Purpose	Indicator	Actual
The capacity of central and local governments for implementing LS and PSBM nationwide is strengthened.	① Strategy to implement LS and PSBM developed at national level and implemented under coordination with local government. ② Provincial Education Offices and teacher training institutions under MONE and MORA conduct LS and PSBM training and disseminating activities.	National level strategies such as Novice Teacher Induction Program (Decree No. 27) and MORA's standard training curriculum were developed about LS. Regarding PSBM, BOS Guidelines were developed. Regarding LS, the indicator was largely achieved through national programs (Novice Teacher Induction Program, Block grant ²³ to LPMP, integration of LS into MORA's standard training curriculum, and implementation of OJT Program) implemented by Provincial Dinas P&Ks, LPMP and Balai Diklat/RCET. Regarding PSBM, indicator was achieved through the BOS Guidelines.
	③ District Education Offices utilize LS and PSBM experiences in their education programs.	The target districts utilized LS and PSBM in their district-level education programs. Regarding the non-target districts, three provinces out of the seven target provinces organized dissemination workshops ²⁴ .

Source: PELITA Terminal Evaluation Report (2013)

3.2.2 Impact

3.2.2.1 Achievement of Overall Goal

Overall Goal: Quality of junior secondary education is enhanced through LS and PSBM extensively in the nation.

Improvement of the UN pass rate and a decrease in dropout and repetition rates were set as overall goal indicators. However, the UN pass rate of the target districts and provinces was already higher than 98% since the beginning of the project in 2009/10 and statistical significance was not confirmed in the improvement of the UN pass rate, because the significance probability was 0.094 and more than 0.05 at a t-test on the increase of the pass rate from 2011/12 (the closest date to the project commencement date among data available at the ex-post evaluation study) to 2014/15 (after project completion). The decrease of the rate in 2012/13 was common in all of the 9 target districts with varying degrees, but the national average of the rate was kept high from the previous years²⁵. Reasons for the decrease in the target districts were not found.

Dropout and repetition rates were similarly not opened at the terminal evaluation, and data were available only from the surveyed schools by the beneficiary survey

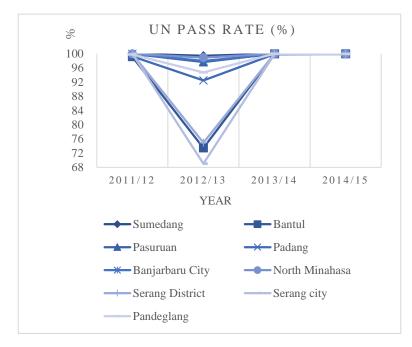
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²³ LPMP's block grant was allocated by MOEC to LPMP and was supposed to be used for activities including LS at MGMP.

²⁴ As for Indicator 3, since no information that indicated that the level (scope) the project purpose aimed for included non-target districts was found, even in materials such as those provided by JICA, the evaluation was conducted on target districts only as the level of the project purpose, as it was at the terminal evaluation.

 $^{^{25}}$ The national average of the UN pass rate was: 99.46% in 2011/12; 99.57% in 2012/13; and 99.56% in 2013/14.

described later.



Source: DGPSEM of MOEC

Figure 3: UN Pass Rate of the Target Districts/Cities

Table 2: Achievement of Overall Goal

Overall Goal	Indicator ²⁶	Actual
Quality of	① Improvement	The UN pass rate of the target districts/cities and provinces was
junior	of UN pass rate	already higher than 98% at the beginning of the project in
secondary		2009/10, and statistical significance was not confirmed in the
education is		improvement of the UN pass rate because the significance
enhanced		probability was 0.094 and more than 0.05 at a t-test. Although
through LS		there was a severe decrease of the UN pass rate in many target
and PSBM		districts/cities in 2012/13, the UN pass rate of the target
extensively in		districts/cities were 99.87% or over in 2013/14 (the national
the nation.		average was 99.56%) and 99.91% or over in 2014/15 (the national
		average was $99.94\%)^{27}$.
	② Decrease in	Dropout and repetition rates were not opened as the same at the
	dropout rate	time of the Terminal Evaluation and the data were available only
		of the surveyed schools. Regarding the 216 surveyed schools, the
		average dropout rate increased from 0.93% in 2011/12 to 1.54%
		in 2015/16. The average repetition rate also deteriorated a little
		from 0.42% in 2011/12 to 0.59% in 2015/16. However, both

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 $^{^{26}}$ Indicators $^{\circ}$ and $^{\circ}$ were not set in the ex-ante evaluation report. In PDM 1 formulated in January 2010, in addition to the above $^{\circ}$ to $^{\circ}$, $^{\circ}$ improvement of the number of professional certifications of teachers was set as the final version of the indicators. However, because there was a change in the professional certification system and it was not possible to compare yearly changes, this indicator was removed at the time of the terminal evaluation and re-examination of the indicators for the overall goal and the collection of data were recommended. Following this, the utilization of the learning ability tests that UPI had independently implemented was proposed in the project completion report. The ex-post evaluation study tried gathering the information, but they were qualitative evaluations of a small number of schools and were not suitable for the ex-post evaluation. Thus, a beneficiary survey was implemented and a statistical analysis of the UN score and the implementation status of LS was conducted.

²⁷ Since 2015/16, the UN pass rate has not been disclosed and only the score has been announced.

3 Decrease in	dropout and repetition rates improved compared with the rates at
repetition rate	the beginning of the project in 2009/10. Presumably because many
	schools had already achieved 0% of dropout and repetition rates
	since 2011/12, statistical significance was not confirmed in the
	correlation between the degree of implementation of LS and the
	degree of improvement in dropout and repetition rates (the
	significance probability was 0.350 for the correlation between the
	number of implementation of LSBS in 2014/15 and improvement
	in dropout rate, and 0.457 with improvement in repetition rate,
	both of which were over 0.05). Regarding PSBM, statistical
	significance was not confirmed in the correlation between the
	degree of community participation in the budgeting process in
	school development planning (principals' evaluation on a 5-point
	scale) and the improvement of dropout rate (significance
	probability was 0.337), and between the former and repetition rate
	(significance probability was 0.165).
4 Improvement	The correlation analysis between the improvement of the
of deviation	deviation value of the UN score of the surveyed schools from
value of UN	2011/12 to 2015/16 and the number of implementations of LSBS
score	in 2014/15 proved that schools with more frequent
	implementation of LSBS have better improvement of the
	deviation value of the UN score with statistical significance
	(significance probability was 0.030 and less than 0.05). One more
	implementation of LSBS would increase the deviation value of
	UN score by 0.265.

Source: DGPSEM of MOEC, beneficiary survey

A beneficiary survey was organized to measure the achievement of the overall goal. The survey was done to a total of 210 junior secondary schools, approximately 15% of both the total of general junior secondary schools and the total of religious junior secondary schools in the nine target districts/cities. The surveyed schools were randomly selected from the total school name lists provided by each District/City Dinas P&K. 216 schools replied²⁸. In addition, a questionnaire survey was given to 88 math and science teachers at 22 schools (4 teachers/school) which the evaluator visited to research the teachers' evaluation on MGMP, times of participation per year, level of satisfaction, implementation times of open class and reflection per year. Of these, 89 teachers replied²⁹.

In the beneficiary survey, implementation data of LS and PSBM at the time of the ex-post evaluation was collected to research whether the implementation of LS and PSBM

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²⁸ In order to collect valid samples of 210 schools, 228 schools were selected at random and were sent questionnaires. As a result, the final sample number was 216, and that number was adopted. The breakdown of the number of valid responses is: 14 secular junior secondary schools and 8 religious junior secondary schools in Sumedang Province; 13 and 3 in Bantul Province; 20 and 20 in Pasuruan Province; 14 and 3 in Padang City; 3 and 1 in Banjarbaru city; 10 and 0 in North Minahasa District; 25 and 26 in Serang District; 8 and 7 in Serang City; and 19 and 22 in Pandeglang District. Four of the 216 schools that responded are not included in the analysis because they are new schools and had no UN score for 2015/16. In addition, 15 schools are not included in the analysis of UN score growth because they had no UN score for 2011/12.

²⁹ The breakdown of the number of valid responses is: 8 secular junior secondary school teachers and 0 religious junior secondary school teachers in Sumedang District; 16 and 8 in Bantul District; 12 and 4 in Pasuruan District; 4 and 4 in Padang City; 9 and 0 in Banjarbaru city; 8 and 0 in North Minahasa District; 8 and 8 in Serang District. At one school in Banjarbaru, one more teacher responded than required because there were a total of five science and mathematics teachers at the school and it wanted to avoid the situation where only one teacher was unable to participate in the interview, which made the total number of respondents 89.

had contributed to the achievement of the overall goal. As a result, about 32% of the teachers opened class and organized reflection one time or more in 2015/16. The survey also revealed that the teachers' evaluation on MGMP and LSBS were higher than the target value at a preceding project, but that the times and percentage of teachers' participating MGMP were lower than those at the project implementation period. All the data were collected from 2015/16 and the detail is shown in the following table (Table 3).

Table 3: Results of the Beneficiary Survey and the Questionnaire Survey to Teachers

SISTTEMS Indicator No. ³⁰	Description	SISTTEMS's target (in 2008)	Score at the ex-post evaluation (in 2016)
2-2-2	Teachers' evaluation on MGMP activities and LSBS	9.49	9.80
2-2-3	Percentage of principals who answered that they had participated in MGMP (%)	Not stipulated	66
2-2-4	Percentage of teachers who answered that their school principals had adjusted their schedule for teachers to participate in MGMP (%)	Not stipulated	93
2-2-5	Percentage of teachers who answered that their school principals had arranged transportation fee for teachers to participate in MGMP (%)	Not stipulated	78
2-3-1	Percentage of teachers who participated in MGMP (%)	80	57
2-3-2	Average annual times of participation by teachers in MGMP (times)	10	3
2-3-3	Percentage of teachers who opened class and organized reflection one time or more in a year (%)	20	33

Source: SISTTEMS Terminal Evaluation Report (2009), beneficiary survey

Furthermore, research was done in the beneficiary survey about the yearly data of the UN pass rate, the UN score³¹, repetition and dropout rates³² at the school level, and the implementation status of LS and PSBM (such as teachers' evaluation on MGMP activities and LSBS, times of annual participation, level of satisfaction, times of organizing open class and reflection per year, and community participation in school development planning and its budgeting). As a result of the correlation analysis between these data, schools whose principals had participated in MGMP had a higher UN pass rate in 2015/16 with statistical significance (significance probability was 0.003 and less than 0.01) and the average UN pass rate was 99.23% among those schools. The details are shown in Table 4 below.

³⁰ These indicators are those of SISTTEMS, a preceding project, but considering the situation where an indicator concerning the implementation of LS at the school level had not been set in this project, these indicators were reviewed so as to clarify the implementation status of LS at schools and evaluate the impact of this project (enhancement of the quality of junior secondary education through LS and PSBM nationwide).

³¹ Acquired from MOEC.

³² In the ex-post evaluation study, following the recommendation at the terminal evaluation, yearly changes of repetition and dropout rates were reviewed as additional indicators of the overall goal. Many schools, however, had already been approaching to 0% dropout and repetition rates since 2011/12, and as explained in detail in Table 2, statistical significance was not confirmed about the improvement in dropout and repetition rates.

Table 4: Difference in UN Pass Rates and the Principals' Participation in MGMP

Schools whose principals	Number of schools	UN pass rate on average (%)	Standard deviation	
participate in MGMP	141	99.23	5.64	
do not participate in MGMP	75	90.67	29.29	

Source: Beneficiary survey

In addition, the correlation between the level of community participation in school development planning and its budgeting (principals' evaluation on a 5-point scale) and the UN pass rate in 2015/16 was confirmed with statistical significance (significance probability was 0.001 and less than 0.01). During the interviews with principals, teachers, and school committee members, it was confirmed that communities that participated in the budget-making of the school development plan were more interested in children's learning, and the schools communicated about student's learning achievement with the community and parents more often, responding to the interest from community. For example, classroom teachers had informed parents of the students' exam results. Interviews with the schools and central and local education offices which the evaluator visited confirmed that the BOS Guidelines (of which the project contributed in the development) were used by schools nationwide, but that District/City TPKs and block grant from districts/cities did not function any longer even in the target districts³³. However, BOS was continuously allocated to schools across the country, and "participation of community in education development" and "bottom up planning," which are essential elements of PSBM, were observed at the school level (e.g. school planning, drafting of budget proposal, and planning using BOS). Thus, it can be said that the effect of the project was realized.

The ex-post evaluation proved that schools that had implemented LS and PSBM tended to have better UN pass rates and scores³⁴ and the project had contributed to the quality improvement of junior secondary education measured by UN. Therefore, the project has achieved the overall goal.

3.2.2.2 Other Positive and Negative Impacts

(1) Expansion from primary to senior secondary education and to other subjects

Five districts and one city out of the nine target districts/cities have implemented LS not only in junior secondary schools, but also at other education levels. The Sumedang, Pasuruan and Bantul Districts, and Banjarbaru City, newly introduced LS in primary, senior secondary, and vocational schools. Padang City also expanded to senior secondary schools

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³³ PELITA Terminal Evaluation Report, p.26.

³⁴ The possibility cannot be excluded that teachers at schools with high UN scores are eager to teach students and to do LSBS activities from the beginning, therefore it should be noted that the frequency of LSBS activities may not necessarily be a factor for the improvement of UN scores.

and the North Minahasa District expanded to primary schools. Furthermore, in the Sumedang and Pasuruan Districts, teachers of all subjects of junior secondary schools had implemented LS. In the Bantul District and Banjarbaru City, teachers of the Indonesian language and English, in addition to mathematics and science teachers, had implemented LS. As a result, the number of teachers who have been trying to improve their teaching through LS has been increasing beyond mathematics and science in junior secondary education that the project supported.

(2) Expansion to other provinces

MGMP activities applying LS that the project supported were taken as a part of activities of World Bank's project "Better Education through Reformed Management and Universal Teacher Upgrading Project (BERMUTU: 2008-2013)" with the engagement of resource persons of Universitas Negeri Malang (UM), and were implemented in 75 BERMUTU's target districts out of a total of 515 districts in the country in 2013. At the completion of BERMUTU, it was confirmed that 1,383 MGMP were active in the 75 districts³⁵. Considering that BERMUTU supported not only junior secondary education but also primary, senior secondary, and vocational schools, LS is expected to be expanded more.

Resource and partner universities actively expanded LS to non-target provinces. Universitas Pendidikan Indonesia (UPI) got support from MOEC and UM from Pertamina, Indonesian state-owned oil and natural gas corporation, MOEC, and its own budget, the total of which amounted to approximately 7,721 million Indonesia Rupiah from 2014 to 2016. In addition, Universitas Lambung Mangkurat (UNLAM) received support of 2.5 million Euro from the Government of the Netherlands³⁶. These universities introduced LS to 14 non-target provinces as well as to the Sumedang, Bandung, and Pasuruan Districts and Malang City in the target provinces.

(3) Application of LS in the Teacher Education Program for Professional Positions

The Teacher Education Program for Professional Positions (Decree No. 8 of 2009, dated February 9, 2009) is a certification program for professional educators from preschool to secondary school education conducted in 11 teacher training institutes ³⁷ in Indonesia. The program participants conduct lessons at schools in remote areas for one year and after that receive training in teacher training institutes for one year. Three resource universities and three partner universities of the PELITA project apply LS in this program.

³⁵ Implementation Completion and Results Report of BERMUTU (Report No. ICR 2655), World Bank, June 30, 2014, pp.41, 53, etc.

The support UNLAM received from Netherland was for LS in mathematics in primary schools.

³⁷ The 11 institutes include Universitas Pendidikan Ganesha, Universitas Negeri Semarang, Universitas Negeri Surabaya, Universitas Negeri Jakarta, Universitas Negeri Makassar, Universitas Pakuan Bogor, STKIP Hamzanwadi Selong, and Universitas Negeri Medan, in addition to the six universities in PELITA. Since these universities, except Universitas Negeri Medan, have participated in JICA's Country Focused Training and Dialogue in Japan on LS, there is a possibility that LS has been adopted at these universities.

This Teacher Education Program for Professional Positions is planned and budgeted by the Directorate General of Higher Education (DGHE) of the Ministry of Research, Technology and Higher Education. Universitas Negeri Manado (UNIMA) has received 15 trainees every year since 2014. The trainees participate from not only the province where the university is located, but other provinces as well. Teachers from East Nusa Tenggara Province were trained in UNIMA in 2016. In the past, the trainees had been mostly made up of researchers, but typical teachers have also participated since 2016.

This project has largely achieved the project purpose of capacity development of the central and local governments in implementation of LS and PSBM and the overall goal in terms of contributing to the quality improvement of junior secondary education since the UN pass rate and score have tendency to be high in the schools that implement LS and PSBM as planned. In addition, LS and PSBM have been expanding to non-target provinces. Therefore, effectiveness and impact of the project are high.

3.3 Efficiency (Rating: ②)

3.3.1 Inputs

Inputs	Plan	Actual
	- Project Management/Education Planning,	
	- Education Administration /Donor Coordination,	
(1) Experts	- Teacher Training Management,	
	- School Management,	12 short-term experts (129.60MM)
	- Lesson Study,	
	- Education Evaluation (Number of long-term and short-term experts and MM was not stipulated.)	
(2) Trainees received	30 persons/year (with cost-sharing with the Government of Indonesia)	Total: 85 persons (5 batches in 2009-2012)
(3) Equipment	Not stipulated	Computer, Handycam video camera, office equipment. 7.74 million yen
(4) (Others)	Costs related to the project management	342 million yen
Japanese Side Total Project Cost	660 million yen	799 million yen
Indonesian Side Total Project Cost	Amount is not stipulated Counterpart arrangement Technical support by cooperating organizations (UPI, UNY, UM, etc.) Office Local cost burden (Expenses for dissemination training and model school installation to 400 districts nationwide, BOS, Expenses for activities of pedagogical advisors / principals / in-service teachers workshops, Daily activity fee of resources universities and partner universities (daily allowance, transportation expenses))	Total: 16,943,618,950 Rupiah (about 160 million yen ³⁸) - Counterpart Personnel - Offices for Japanese experts - Local cost (4,185 million Rupiah for LS and 12,757 million Rupiah for PSBM)

^{*} MM stands for man month.

Source: PELITA Terminal Evaluation Report

3.3.1.1 Elements of Inputs

Dispatch of experts and reception of trainees were implemented within the project budget to achieve the project purpose.

3.3.1.2 Project Cost

The project cost exceeded the plan (by 121%: plan: 660 million yen, actual: 799 million yen) to strengthen the structure of technical transfer to improve the model performance of local sites. The concrete purpose was to technically strengthen reference schools that functioned as a showcase of good practice and received guests who were educators and officials from other districts and learned how to organize LS. Therefore, this expense increase is considered for the realization of outputs rather than for increasing

³⁸ Conversion according to JICA adjustment rate in March 2013.

outputs.

3.3.1.3 Project Period

The project period was as planned (100%).

Although the project period was within the plan, the project cost exceeded the plan. Therefore, efficiency of the project is fair.

3.4 Sustainability (Rating: ②)

3.4.1 Related Policy and Institutional Aspects for the Sustainability of Project Effects

Regarding the policy of the Indonesian Government, "Chapter 6 National Development Agenda" of RPJMN (2015-2019) contains the priority areas of the education sector which include the importance of curriculum diversification so that the students can grow in accordance with their individual potential, interests, and intelligence; improvement in preparation of teachers' teaching; increase of teachers' involvement and stakeholders' interest to actively participate in giving input to the implementation of the curriculum; sustainable teachers' professional development; and importance of mathematics, science, and language. Therefore, the consistency with RPJMN is high. Regarding RENSTRA (2015-2019), that junior secondary schools meet MOEC's National Education Standard is one of the Target Strategic Objective Performances (SS), and in the Standard, the interactive and motivating learning process accustomed to each student's level of understanding and teachers' continuous professional development through MGMP are included. However, there were many teachers who responded in the interview that their school did not organize LSBS because LS is not included in the National Education Standard and MOEC's policy did not put an importance on LS. It shows that the policy is not clear enough for teachers to promote LS. In relation to the curriculum revised in 2013, which all junior secondary schools including religious junior secondary schools are obliged to follow, the relationship with LS is not specified. A teacher training curriculum corresponding to the 2013 revised curriculum has not been prepared, but according to an interview in the ex-post evaluation study, teacher training universities and teachers in the West and East Java provinces thought that LS could be effectively utilized for teachers' continuous professional development and guidance of the 2013 revised curriculum. On the other hand, teachers and province LPMPs in the Bantul District, Banjarbaru City, and the Serang District thought that the priority was given to realizing the content of the 2013 revised curriculum and that the priority of LS is low.

As for institutional aspect, in respect to the certification system for teachers, the system of teachers' portfolio evaluation has included LS, as at the project implementation period, but the teachers' competency exam was added in 2012 as a core method to evaluate

the capacity of teachers. In-service teacher training from the Directorate General of Teachers and Education Staff of MOEC is conducted to individual teachers according to the result of their competency examination, and the degree of consideration of the situation of LS implementation has decreased. Further, teachers can get credits of portfolio by attending MGMP, and the District Dinas P&Ks of the target districts continue recommending that teachers attend MGMP, but there is no distinct instruction from MOEC to organize LS in MGMP. Meanwhile, the arrangement and implementation of Reference School 39 by the Directorate General of Primary and Secondary Education Management (DGPSEM) started to set up one Reference School in each district in 2016/17 and it plans to expand the initiative step-by-step. In the Reference School Guidelines, LS is described as one of the 41 activities under "Become a center of excellence," one of the six indicators to select a Reference School. LS is also included in the Novice Teacher Induction Program (Decree No. 27), but the Program has been implemented only in the Sumedang and Pasuruan Districts after the project completion and it was implemented just once by the South Kalimantan Provincial Dinas P&K for teachers in the Barito Kuala and Tabalong Districts. The other seven target districts/cities and non-target districts of the target provinces have not organized it. This is because the authority to decide implementation and budget allocation has been given to the district level due to decentralization. Regarding MORA, LS is included in the MORA's standard in-service teacher training curriculum designated by Pusdiklat/NCET and implemented by local Balai Diklat/RCETs, and thus is institutionally supported.

Regarding PSBM, BOS Guidelines stipulate that schools are required to formulate a 4-year school development plan and annual plans and budgets with joint consideration and approval by the school committee based on the school's self-assessment. BOS Guidelines are continuously disseminated to schools in the country and schools use BOS in accordance with the BOS Guidelines. Therefore, PSBM is politically and institutionally supported.

3.4.2 Organizational Aspects for the Sustainability of Project Effects

Implementation structures are secured in the target districts, but in accordance with the Education Law enacted in 2003 following the decentralization that started in 2001, the authority over junior secondary education was transferred from the Provincial Offices of MONE⁴⁰ to the District Dinas P&Ks and the authority over the implementation of training has also gradually been transferred from Provincial Dinas P&Ks to the district level. As a result of this, training on LS and PSBM for target and non-target districts has not been held

³⁹ Sekolah Rujukan, which means an approach to setting up a model school. "Panduan Pembinaan dan Pengembangan, Sekolah Rujukan, Tingkat Sekolar Menengah Pertama," Directorate of Junior Secondary Education, DGPSEM of MOEC, 2016

⁴⁰ Provincial, District, and County Offices of MONE were abolished following decentralization in 2001.

since 2015 by Provincial Dinas P&Ks⁴¹. Provincial Dinas P&Ks did not grasp the situation in each district after holding dissemination workshops in three provinces of the seven target provinces in 2013, when the project completed, and in two provinces in 2014.

The number of facilitators in the target districts/cities had been maintained at the level of about 32 people⁴² except for Padang City and two districts in the Banten Province where the District/City Dinas P&Ks did not know the number of facilitators. The Sumedang District had increased the number of facilitators to 50.

Regarding human resources at LPMPs who can provide training on LS and PSBM, there was no trainer in the Yogyakarta Province and only one in the East Java Province. On the other hand, LPMPs of the West Java and Banten Provinces have internally shared information after the project completion and increased the number of trainers for LS. Many resource/partner universities and Balai Diklat/RCET increased the number of LS trainers by sharing information in their organizations. Details are shown in Table 5 below.

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⁴¹ LPMP is the institution responsible for in-service teacher training for junior secondary education teachers, but the training by the Provincial Dinas P&K had been carried out in relation to the project. At the time of the ex-post evaluation, regarding the training at LPMP, MONE provided the requirements and the number of participants and actual participants were decided by the District Dinas P&Ks. In addition, training contents and methods were stipulated by MOEC about the training provided according to the result of competency exams.

⁴² There were 20 facilitators in Banjarbaru City, but the number of schools was small and in 2016, there were 22 secular junior secondary schools and 12 religious junior secondary schools.

Table 5: The Number of Facilitators and Trainers who do/can provide training on LS

(Unit: Number of people)

Province	Resource/partner	Number of	Trainers who do/can provide training on LS			
Province	university	facilitators	Teacher Training Universities	LPMP	Balai Diklat	
West Java	UPI	50	80	42	20	
Yogyakarta	UNY	32	32	0		
East Java	UM	32	73	1	15	
West Sumatra	Universitas Negeri Padang	N/A	27	18	2	
South Kalimantan	UNLAM	20	5	2	11	
North Sulawesi	UNIMA	31	12	4	6	
Banten	There is no specific partner university, but is a branch of UPI	N/A		22	25	
Total		165	229	89	79	

Source: District Dinas P&Ks, Teacher Training Universities, LPMPs, Balai Diklat/RCETs

The number of facilitators, pedagogical advisors, teachers who got training in the Novice Teacher Induction Program, other teachers and principals who got training on LS and PSBM from the Provincial/District Dinas P&Ks or Religious Office, LPMPs, or Balai Diklat/RCETs between the project completion and 2016 is 16,901. Details are shown in Table 6.

In parallel with the project implementation, the three resource universities cooperated to support implementation of LS in neighboring universities by acquiring subsidy from DGHE for three years for each batch of 10 universities from 2009 to 2015⁴³. The 50 universities including the three resource and three partner universities belong to Lesson Study Association of Indonesia (ALSI) initiated by UPI and share information on LS at annual conferences⁴⁴. Six universities of the 50 are resource/partner universities of the project, and 43 universities have teaching staff who got training from national trainers in the project for disseminating LS nationwide. The above-mentioned subsidy from DGHE will be obtained again for 2016.

Among the target provinces, some provinces decreased the number of trainers for LS and PSBM in LPMPs and Balai Diklat/RCETs, but there are resource persons in the universities. Since no implementation structure has been documented for utilizing resource persons at schools and continuing and disseminating LS, coordination by District and Provincial Dinas P&Ks is indispensable⁴⁵. Under the circumstance where it is difficult for Provincial Dinas P&Ks to play an active role for dissemination in the course of decentralization of junior secondary education to district level, the importance of LS needs

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⁴³ Supports were provided to five batches in 2009-2011, 2010-2012, 2011-2013, 2012-2014, 2013-2015.

Regarding the activities of the member universities at ALSI, information in 2016 alone was available but 20 universities made presentations.

⁴⁵ In the West and East Java provinces where LS at schools is still actively carried out and resource persons from teacher training universities provide technical support to schools, teacher training universities and District Dinas P&Ks have concluded a Memorandum of Understanding (MOU).

to be clearly shown in the policy and institutional aspect in order for resource persons from universities to support LS at the school level with the coordination by District Dinas P&Ks.

Table 6: The Number of People Trained on LS and PSBM after the Project Completion by the Concerned Organizations (from April 2013 to December 2016)

		The Number of People Trained after the Project Completion (Provincial/District Dinas P&Ks, LPMPs, Balai Diklat/RCETs)								
Province	Facilitator	Sub- District Trainer	Pedagogic al Advisor	Novice Teacher	Other Teachers	Principal	Total			
West Java	1,610	1,960	1,000	0	3,288	1,000	8,858			
Yogyakarta	16	64	0	48	0	98	226			
East Java	408	158	22	24	270	0	882			
West Sumatra	0	0	360	0	1,640	0	2,000			
South Kalimantan	244	44	4	45	2,649	0	2,986			
North Sulawesi	0	4	0	0	47	196	247			
Banten	25	0		365	750	562	1,702			
Total	2,303	2,230	1,386	482	8,644	1,856	16,901			

Source: Provincial/District Education and Culture/Religious Office, LPMPs, Balai Diklat/RCETs

3.4.3 Technical Aspects for the Sustainability of Project Effects

Technical sustainability in the target districts and provinces is high with resource persons, mainly in teacher training universities, who can organize training and workshops to disseminate LS and training at school level with a decent quality and facilitators who can implement LS at the school level appropriately. To verify whether facilitators in each district/city can provide technically appropriate advice, LS and reflection were observed in a detailed study on effects and issues to be noted in the introduction and maintenance of LS conducted within the ex-post evaluation study at Sumedang District and Banjarbaru City. It revealed that facilitation of high quality was done to concentrate on students' learning and produce positive discussions (see the column below for details).

Regarding the technical capacity of the non-target districts and provinces, the project trained national trainers of LPMPs and Balai Diklat/RCETs nationwide and resource persons from 43 universities. In addition, the three resource universities supported 47 universities including partner universities to implement LS with the aforementioned subsidies from DGHE. Furthermore, JICA organized Short-Term Training for Institutes of Teachers Training and Education Personnel (ITTEP, 2013-2017) for the lecturers of 50 universities. Therefore, it is expected that the technical capacity of individuals to continue LS is well sustained. (More detail is described in the column "Roles and Contributions by JICA.")

In terms of PSBM, BOS Guidelines stipulate that schools are required to formulate a 4-year school development plan and annual plans and budgets with the joint consideration and approval by the school committee based on the school's self-assessment. All 18 schools

that the evaluator visited answered that they used BOS in accordance with the BOS Guidelines. Among the seven school development plans acquired as a sample, all of them contained appropriate plans of actions suitable for the goals of improving the quality of education and achieving the National Education Standard, and five of them had budget plans to participate in MGMP and organize LSBS. Therefore, techniques at the school level, the capacity of MOEC to develop guidelines, and the technique of the District Dinas P&Ks to support appropriate operations of BOS that the project's PSBM component aimed to realize have been obtained.

3.4.4 Financial Aspects for the Sustainability of Project Effects

Regarding budget allocation, according to interviews from target districts (see Table 7) and schools, budgets for LS at MGMP and school levels had been stably secured, but budgets for LS by LPMPs and training for facilitators had not been stably allocated by the central government. In addition, the budget from Provincial Dinas P&Ks and Balai Diklat/RCETs for the training on LS and PSBM have been severely cut since 2015 (see Table 8).

BOS has been increasingly allocated every year to schools nationwide for the purpose of lessening the parents' burden for compulsory education and of schools' achieving the minimum service standard and the National Education Standard. BOS can be used for nonpersonnel costs such as those for materials and equipment, indirect costs for power, water, etc., maintenance costs of facilities and infrastructure, overtime costs, transportation costs, and the like. The unit amount of BOS per student per year from the central government was 710,000 Indonesian Rupiah (About 6,745 Japanese Yen⁴⁶) from 2012/13 to 2014/15 and 1 million Indonesian Rupiah (About 9,500 Japanese Yen) in 2015/16 and 2016/17 in all the target provinces of the ex-post evaluation⁴⁷.

School Operational Assistance from local governments (BOS Daerah: BOSDA) has been allocated in the Bantul District by the District and Provincial Governments and continues to date. On the other hand, Banjarbaru City received BOSDA until 2015, and the Sumedang District received assistance until 2013 from their Provincial Governments, but it has stopped since then. The Pasuruan and North Minahasa Districts, Padang City, and the Banten Province have not received BOSDA from provincial and district governments since 2012.

Due to the situation of budget allocation seen above and the fact that costs for LS are merely those for printing documents, etc. and relatively small, budgets at the school level for MGMP and LS are enough. The same goes for budgets at the district level in many cases. According to a resource person at UNY, however, the frequency of participation of resource

⁴⁷ According to the interviews with MOEC, the Provincial/District Education and Culture/Religious Offices,

and 22 schools visited in the ex-post evaluation study.

⁴⁶ Conversion according to JICA adjustment rate in March 2012.

persons in LS had decreased in Bantul City, which was said to be attributable to the reduction of the budget from the District Dinas P&K after the project completion.

In addition, since the training budget for dissemination of LS in the target provinces has drastically decreased since 2014 and 2015, it can be said that the budgets in the target provinces are not sufficient.

Table 7: Expenditure for LS and PSBM by the target District Dinas P&Ks

(Unit: million Indonesian Rupiah)

Province	District/City		Yearly Expenditure						
Province	District/City	2011/12	2012/13	2013/14	2014/15	2015/16	Total		
West Java	Sumedang	45	0	50	50	140	285		
Yogyakarta	Bantul	60	61	61	61	61	304		
East Java	Pasuruan	350	350	350	400	400	1,850		
West Sumatra	Padang	Data was not available during research period					0		
South	Banjarbaru	520	520	526	491	491	2,548		
Kalimantan	<u> </u>						,		
North Sulawesi	North Minahasa	0	0	0	150	75	225		
	Serang District	0	0	856	856	745	2,457		
Banten	Serang City	Data was not available during research period							
	Pandeglang	Data	was not ava	mable during	g research p	eriou	0		
Total	·	975	931	1,843	2,008	1,912	7,669		

Source: District Dinas P&Ks

Table 8: Expenditure for LS and PSBM by the target Provincial Education and Culture/Religious Office, Balai Diklat/RCETs, and LPMPs

(Unit: million Indonesian Rupiah)

Province	Organization	Yearly Expenditure					
Province	Organization	2011/12	2012/13	2013/14	2014/15	2015/16	Total
West Java	Dinas P&K	3,943	6,769	5,189	0	0	15,90 1
	Balai Diklat	0	0	132	116	96	344
Yogyakarta	Dinas P&K	100	126	152	198	350	926
	Religious Office	15	15	15	15	15	75
East Java	Dinas P&K	970	1,083	1,133	1,128	70	4,384
East Java	LPMP	0	0	0	349	0	349
West Sumatra		Data was not available					0
South Kalimantan	LPMP	95	125	130	0	0	350
South Kaninantan	Balai Diklat	0	1,355	732	0	0	2,087
North Sulawesi	Balai Diklat	0	0	200	0	0	200
Banten	Dinas P&K	0	0	0	0	0	0
Total		5,123	9,473	7,683	1,806	531	24,61 6

Source: Provincial Education and Culture/Religious Office, LPMPs, Balai Diklat/RCETs

Some minor problems have been observed in terms of the policy background and organizational and financial aspects. Therefore, sustainability of the project effects is fair.

4. Conclusion, Lessons Learned, and Recommendations

4.1 Conclusion

The project aimed to improve the quality of junior secondary education nationwide by strengthening the capacity of central and regional educational administration to promote LS and PSBM. The objective of the project is consistent with the educational policy and development needs of Indonesia and the aid policy of Japan, and makes good use of Japan's comparative advantage, thus its relevance is high. The project purpose and overall goals were almost achieved, and the trend of higher UN pass rates was confirmed at schools that had conducted LS and PSBM, and many other positive impacts were confirmed. Therefore, effectiveness and impact are high. Although the project period was as planned, the project cost exceeded the plan. Therefore, efficiency is fair. Regarding sustainability, some minor problems have been observed in terms of the policy background and organizational and financial aspects. Therefore, sustainability of the project effects is fair.

In light of the above, this project is evaluated to be satisfactory.

4.2 Recommendations

4.2.1 Recommendations to the Implementing Agency

4.2.1.1 Recommendations for the District Education and Culture/Religious Office

In an interview with teachers, some teachers said, "I got bored of LS," or, "We could acquire knowledge and new information of subjects from resource persons from teacher training universities during the project period, but cannot now because resource persons do not participate in our activities often." According to a resource person at UNY, the frequency of participation of resource persons in LS had decreased in the Yogyakarta Province, and it was attributable to the reduction of the budget from the District Dinas P&K. Those teachers can acquire new knowledge and technique through MGMP activities applying LS augments teachers' willingness to participate and improves the quality of education at schools. It is desirable that, in order to ensure the participation of resource persons at teacher training universities, each District Education and Culture/Religious Office secures the MGMP budget and monitors teachers' participation in MGMP and the situation of schools that do not actively conduct LSBS.

4.2.1.2 Recommendations for the Provincial Dinas P&Ks

For the dissemination of LS to non-target districts and in order for the District Dinas P&Ks in those districts and the Provincial Religious Office to obtain information on resource persons, including reference schools and universities that are doing good practice of LS, it is desirable to share lists of reference schools in each district and resource persons including universities with all the District Dinas P&Ks in its province and the Provincial Religious Office, and to periodically collect information from the District Dinas P&Ks, and

to hold experience sharing meetings on LS implementation.

4.2.1.3 Recommendations for MOEC

LS should be included in the training standard curriculum of MOEC used by LPMPs. Considering that training on implementation of the 2013 curriculum was the top priority at the time of the ex-post evaluation study, it is desirable to show that LS is useful in promoting the 2013 curriculum and is a part of teachers' Continuous Professional Development (CPD) that is written in the policy of MOEC, and to introduce various ways of promoting LS reported from the Sumedang, Pasuruan and Bantul Districts in particular, where there have been many good practices.

4.2.1.4 Recommendations for the partner universities

It is desirable to encourage the 50 member universities of ALSI, including the 43 universities that received the training of the national trainers by the project in the project, to share the list of resource persons with the Provincial/District Education and Culture/Religious Office in the service area of each university for them to implement LS, and to continuously share research outcomes of ALSI with MOEC.

4.2.1.5 Recommendations for MORA and its National Center for Education and Training As one of the training standard curricula of the MORA contains LS, it is recommended to secure a budget for training that includes LS.

4.2.2 Recommendations for JICA

It is desirable to continuously share with MOEC information about technical training in Japan and its participants so as to support the participants becoming resource persons after returning to Indonesia, to disseminate LS, and to help MOEC introduce information about resource persons to the Provincial/District Dinas P&Ks that coordinate the support of LS implementation at the school level.

4.3 Lessons Learned

<u>Integration of components in the project implementation method responding to the progress</u> of institutionalization during the project implementation period

The project did not propose a way for PSBM to bring about interaction with LS, which was expected at the planning stage⁴⁸. Facing a situation where the BOS program of the Indonesian government was being steadily systematized, a decision should have been made to change the approach and implementation method of the project to those that are more effective for achieving the project purpose by, for instance, incorporating the BOS system,

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⁴⁸ PELITA Terminal Evaluation Report, p.31.

not by encouraging the allocation of block grants from districts/cities that had similar functions to BOS.

With the steady institutionalization of BOS, to which this project contributed through the development of guidelines, school management subsidies to be allocated to schools were secured, and block grants at TPK and district level became unnecessary in the same form as at the time of introduction of it. In addition, the institutionalization of TPK (that did not exist in the conventional system) did not progress. Recognizing these facts, and considering that the overall goal was the qualitative improvement of the nationwide junior secondary education, it is considered having been possible and appropriate to make efforts for proposing a way of improving school management for promoting LS instead of trying to expand block grants at TPK and the district level. Specifically, at the school level where the budget has been allocated by BOS, teachers should have been referred to the teachers' Continuous Professional Development (CPD) that was written in the policy and the National Education Standard of MOEC, and given guidance on developing school improvement plans that include activities for promoting LS that aims to realize the potential of every student and teach them according to their interest and learning ability.

At many of the schools visited this time, it was mentioned that there was no time for LS because it was necessary to prioritize achieving the National Education Standard and implementing the 2013 curriculum. This shows that there are more than a few schools that have not been able to position the importance of LS in the whole framework of school improvement. Sustainability of the project could have been further reinforced if an integrated approach had been taken that was more advanced than just implementing the LS component and PSBM component respectively.

Therefore, in projects aiming at institutionalization on a nationwide scale, the approach and the method for activity implementation should be modified as necessary for achieving the project purpose and overall goal and sustainable institutionalization with having sufficient discussion with concerned parties of the country and of Japan, in the process of collecting information of on-going institutionalization by the government (including but not only C/P) of the country and identifying what kind of institution is sustainable in the country.

Box: Roles and Contributions by JICA

After the project completion, JICA has continued in-country training on LS (training for lecturers at teacher training institutions). From 2013 to 2017, 20 to 22 lecturers of teacher training universities each time (a total of about 160 people, including those yet to be trained) have learned the theory and practice of LS in Japan. Participants are selected from lecturers who are eager about LS and work at one of the universities to which UPI, UM, and UNY have introduced LS with the support from DGHE (the 50

member universities of ALSI) by consulting with DGPSEM of MOEC and leaders of ALSI.

This training in Japan is indirect support from JICA for the efforts of LS implementation by teacher training universities, and participants can learn from LS practitioners in Japan. According to MOEC, it is effective in raising motivation and deepening understanding of LS for concerned parties.

This initiative of Japan to continue engagement in some way after the completion of the project is considered effective in a technical cooperation project that assumes that the project counterparts continue to learn and improve their work.

Box: Effects and points to be noted in the introduction and continuation of LS

To summarize the effects and points to be noted in the introduction and continuation of Lesson Study, evaluations were made for the quality of Lesson Study mainly by observations of Lesson Study activities and interviews by experts at three schools in the Sumedang District in the West Java Province and Banjarubaru City in the South Kalimantan Province, which were one of the target areas of this project or the preceding project and where Lesson Study activities could be observed on the day of visit. The evaluations revealed that the level of Lesson Study aimed at by SISTTEMS and PELITA was maintained as of the ex-post evaluation study and that the possibility that Lesson Study had been contributing to the qualitative improvement of lessons was extremely high.

1. Effects of Lesson Study

Owing to Lesson Study and the Lesson Design introduced in it, teachers can always have an awareness of how to respond to students' reactions during the class and forecast reactions and prepare countermeasures in advance. And by repeated Lesson Study activities, teachers are more precisely aware of the reactions of each student's learning, awareness, and stumbling in the class, and through the exchange of ideas on how to respond, the content of the guidance from the project is being established, and reflection after the observed classes (retrospective discussion of classes) has become a forward-looking discussion of the next concrete actions.

2. Promotion factors of Lesson Study

Factors that promote Lesson Study include four points: the existence of facilitators who can promote the discussion of forward-looking reflection described above; the cooperation of teacher training universities; MGMP and coordination with schools by administrative organizations such as the District Education and Culture Offices; and efforts that are tailored to the culture of Indonesia.

3. Effective approaches in introducing Lesson Study to other countries

The approaches considered effective in introducing Lesson Study to other countries are: first, introduction in science and mathematics and then applying it to other subjects with local initiatives; second, utilizing the existing MGMP framework; third, incorporating Lesson Study into the practical training of teaching at universities; and fourth, promoting understanding of Lesson Study among university professors in the department of education.

4. Disincentive factors for dissemination and continuation of Lesson Study

According to some teachers, a problem that impeded the dissemination and continuation of Lesson Study was that, even if Lesson Study was understood and practiced, teachers got tired of continued similar classes and reflections.

5. Lessons

Based on the analysis results, the following four lessons can be mentioned.

- ① Find human resources who can be involved in Lesson Study for a long time without being affected by personnel change, and train them as facilitator/resource person.
- ② Respect the ownership of the countries concerned in order to enable dissemination in the form of incorporating the cultures and values of the countries concerned.
- ③ Instruct school principals as key people for training in the school about the importance and methods of Lesson Study, and create an environment in which Lesson Study is easy to be disseminated within each school.
- ④ Motivate teachers by having them establish training subjects to improve the teaching process for each subject and each unit with emphasis on contents, thereby establishing Lesson Study.

Particularly with regard to ④, it is also a countermeasure to the above-mentioned problem of getting bored with Lesson Study, and it is necessary for teachers regarding their professional development to accurately grasp their own problems and to work on training after recognizing their training subjects. It is expected that the professional competence of teachers will continue to develop through continuous Lesson Study activities.

Table 9: Achievement of outputs (at completion of the project)

	The second of outputs (a	
Output	Indicator	Achievement
Output 1: <at level="" national="" the=""></at>	① (J & I) ⁴⁹ Strategy and guidelines for dissemination of	Both MOEC and MORA formulated a dissemination strategy, and guidelines for
1-1: The capacity of MONE and MORA is	LS developed by MONE and MORA.	dissemination have also been prepared under the approval of both ministries (submitted in August 2012).
developed for	② (I) MOEC and MORA	Two-ministry coordination meetings (five
implementing its policy to introduce LS nation-wide.	conduct monitoring and technical guidance activities at least once a year.	times since 2011) and the inspection of the project sites were conducted, and the indicator was partially achieved.
1-2: The capacity of LPMPs and	① (I & J) At least 70% of lecturers per LPMPs and Balai	Virtually achieved. 64% from LPMPs (222 out of 346 persons at 33 LPMPs nationwide) and
Balai Diklat/ RCET is	Diklat/RCET participate in TOT.	46% from Balai Diklat / RCETs (115 out of 251 persons at 12 Balai Diklat / RCETs
developed for conducting		nationwide) took the training. Regarding lecturers in science and mathematics, 100% of
training on LS.	② (I) Sufficient budget allocated	them took the training. Achieved in three out of seven target
	to LPMP and Balai Diklat to TOT	provinces (West Java, South Kalimantan, and
	in each province by MOEC and	North Sulawesi). The indicator can be said to
	MORA.	be almost achieved if the year of 2014, one year after the project completion, is included,
		by which five out of seven target provinces
		achieved the indicator. In the South
		Kalimantan Province, budget allocation was not made for LPMP, but there were budget
		allocations from the central government in
		2012 and 2013, and a total of 168 district trainers, supervisors, facilitators, and new
		teachers in three districts/cities were trained.
		The East Java and West Sumatra Provinces
		allocated budget to LPMPs in 2014, namely after the project completion. Budget for
		LPMPs for conducting LS activities was zero
		in the Yogyakarta, Banten, and North Sulawesi Provinces.
		Regarding the regional training centers of MORA, budget was allocated to Balai Diklat /
		RCET in the West Java, South Kalimantan, and North Sulawesi Provinces, and training
		was conducted. At Balai Diklat/RCET in the
		West Sumatra Province, training was given to all the districts in the province during the
		period from 2014 to 2016, after the project
		completion. Therefore, if the year of 2014,
		one year after the project completion, is included, five out of seven target provinces,
		including the East Java and West Sumatra
	③ (I) Training modules on LS	Provinces, achieved the indicator. Achieved. At the time of the project
	developed and included in	completion, the training module of LS was
	training programs at LPMP's and Balai Diklat.	included in the training programs of LPMPs and the regional training centers of MORA.
1-3: The capacity	① (I & J) In national programs,	Almost achieved. MOEC utilized the
of MONE is	training modules to enhance local	experience of PSBM and developed the BOS
developed for introducing	governments are developed based	guidelines with the cooperation of the project.
essence of PSBM	on PSBM experiences and utilized by MONE.	
to national		
program. Output 2: <at td="" the<=""><td>① (I & J) Strategies for LS</td><td>At all the reference sites, an LS dissemination</td></at>	① (I & J) Strategies for LS	At all the reference sites, an LS dissemination
- arpar 2. Art the		are reference street, an all dissemination

 $^{^{49}}$ (J) indicates matters to be dealt with by the Japanese side, (I) indicates those by the Indonesian side, and (I & J) indicates those to be jointly dealt with by the Indonesian and Japanese sides.

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reference and target sites> 2-1: At the LS reference sites, a showcase of LS practice is developed.	dissemination developed by the provincial and district governments	strategy has been formulated, human resources for dissemination and resource persons have been steadily trained, and the number of reference schools of LSBS almost reached the target value.
	② (I & J) Number of trained facilitators who can provide technical guidance to other provinces and districts: 40 persons	Achieved. There were 82 resource persons in the three provinces that had been targeted since SISTTEMS and 52 facilitators in six provinces (including 24 persons in the newly targeted three provinces) who had been certified as persons who could provide technical guidance. The number is considered enough for implementing LS at LS reference sites stipulated in Output 2-1, but given that all of them are from the targeted six provinces, and in the context of achieving the project purpose and overall goal, it must have been difficult for staff at national training institutions (teacher training centers by subject) and LPMPs and Balai/Diklats in non-target provinces to become a trainer or a facilitator just by participating in training for master trainers ⁵⁰ .
	③ (I & J) 15% of junior secondary schools per target district reference district approved as LSBS reference school.	Almost achieved. At the completion of the project, the percentage of reference schools of LSBS was the same as at the time of the terminal evaluation: 25% in Sumedang District; 29% in Bantul District; and 14% in Pasuruan District.
2-2: At the LS new target sites, a showcase of MGMP-based LS implementation mechanism is developed.	① (I & J) Strategies for LS implementation developed by the district governments.	MGMP-based LS had been conducted based on the district/city level strategies and policies, and all the new target areas achieved the indicator.
	② (I) Sufficient budget allocated for MGMP-based LS by District Education Office and schools.	The budget for conducting LS activities had been secured. (Yearly budgets for each district are shown in Annex 6 of the attached document 1 of the terminal evaluation report (p.89)).
	③ (I & J) At least a half of MGMP sessions/districts are monitored by LPMP/university resource persons.	The degree of achievement varies: it seems low in Padang City (monitoring by universities had continuously been conducted but monitoring by LPMP has been delayed since the new director assumed office in the middle of 2012); approximately a half in Banjarbaru City; and high in North Minahasa District (100%).
	④ (I & J) MGMP-based LS for at least two subjects are functioning in each home base.	It had been conducted at least for two subjects (mathematics and science) as planned in all sites and the participation rate was high, and introduction for other subjects was in progress.
2-3: At the PSBM reference sites, the capacity of the local governments is developed for PSBM with their own resources.	① (I) Training modules on PSBM developed and included in training programs at provincial education offices and PSBM guidelines developed by district governments.	Achieved. Original guidelines for the three districts/cities in Banten Province had already been formulated and disseminated to all counties in the districts/cities using their original guidelines for dissemination. At the provincial level, socialization for PSBM was conducted in 2012 for districts and cities in the province, and the province-wide dissemination plan was formulated at the end of December 2012. (Materials by JICA)
	② (I & J) Sufficient budget	Achieved. The allocated amount of BOS from

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⁵⁰ The breakdown is as follows: university lecturers (47.4%); Dinas P&K of the target districts and the total of Balai/Diklat and Pusdiklat/NCET (17.5% for each); LPMP (11.3%); Dinas P&K of the target provinces (4.1%); and Provincial/District Religious Office (1.0% for each). (The Project Completion Report, p.A-142)

		allocated to schools in the target sites by central (MORA) and/or local governments.	, , ,
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Source: PELITA Terminal Evaluation Report (2013), materials by JICA