# **Summary of the Evaluation**

I. Outline of	I. Outline of the Project				
Country: Mongol		ngol	Project Title: Project for Stren Improving and Disseminating Methods		
Sector: Basic	Educat	tion	Cooperation Scheme: Technic	al Cooperation Project	
			Total cost (as of the time of ev 280 million yen	valuation):	
Division in Charge:	JICA Mongol Office		Implementing organization in Ministry of Education and Sci *Ministry of Education, Cultu renamed as MES since Sep. 20	ence (MES) re and Science (MECS)	
Cooperation	(R/D) December 8, 2009		Organization in Japan: Koei R Tokyo Gakugei University	esearch Institute (KRI),	
Period		Three years (March 2010-February 2013) and extended for six months (March to August, 2013)			
II. Evaluation	n Team	1			
Members of the evaluation team		<ul> <li><japanese side=""></japanese></li> <li>1. Team Leader:Mr.Satoru Takahashi, JICA Senior Advisor</li> <li>2. Education Planning: Mr. Takeshi Matsuyama, JICA Human Development Dept.</li> <li>3. Evaluation Planning 1: Ms. Moeko Imayoshi, JICA Mongolia Office</li> <li>4. Evaluation Planning 2: Ms. Ch. Oyuntsetseg, JICA Mongolia Office</li> <li>5. Evaluation and Analysis: Ms. Chie Tsubone, Global Link Management, Inc.</li> <li><mongolian side=""></mongolian></li> <li>6. Leader: A. Tuya, Head, Primary and Secondary Education Division, MES</li> <li>7. Manubary L Nagyatawa Officer Strutters and Balica Planning Department MES</li> </ul>			
		<ol> <li>Member: J. Narantuya, Officer, Strategy and Policy Planning Department, MES</li> <li>Member: N. Oyuntsetseg, Professor, Chemistry Department, National University of Mongolia</li> </ol>			
Evaluation Per	riod	2012/10/1 - 2012/10/18	8	Terminal Evaluation	

# III. Overview of Evaluation Results

# **3-1 Achievements of the Project**

# (1) Outputs

Output 1: Capacities of "the District/Aimag Teams"\* in all District/Aimags to disseminate "the Teaching Methods" are enhanced.

Indicator 1	Training participants increase their satisfaction and understanding.	
Indicator 2	Training participants' behavior is positively changed.	
Indicator 3	"District/Aimag Team" members attend the training based on the training package (at least	
	8 participants).	

Output 1 has been mostly achieved. Indicator 1 shows that the average satisfaction level of training participants in 2011 was high, which was more than 4 out of 5-sclae evaluation while understanding level on the Teaching Methods was relatively low; 39.6% of teachers and 14.9% of school managers answered correctly to questions regarding the Teaching Methods. Because recent data on the levels of satisfaction and understanding is not available, the level of improvement could not be analyzed quantitatively. However, teachers and specialists of DECs interviewed by the evaluation mission team acknowledged that their understanding on the Teaching Methods was improved through the Project. Regarding Indicator 2, Lesson Study was implemented by 64% of all the schools in the country after training, which indicates relatively high level of behavioral changes because implementation of Lesson Study nationwide is the indicator used for the Overall Goal. Indicator 3 has been fully achieved.

Output 2: Models of "Lesson Study" are developed in model District/Aimags.

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Indicator 1	Model schools develop "Lesson Study Implementation Plan".	
Indicator 2	Model schools conduct "Lesson Study" at least twice a year in the eight subjects.	
Indicator 3	Quality of "Lesson Study" at model schools is improved.	
Indicator 4	Satisfaction level of participants in "Lesson Study" at model schools is increased.	

Output 2 has been mostly achieved. Indicator 1 has been achieved. Regarding Indicator 2, compared to the data of 2010/2011, the frequency of implementation of Lesson Study in 2011/2012 was increased though it was slightly below the objective. In the academic year 2011/2012, 57% of model schools conducted Lesson Study more than twice in 8 subjects, and 93% conducted it more than twice in 6 subjects. About Indicator 3, though quantitative data was not available, alternative qualitative information indicating improvement was obtained. Therefore, it was mostly achieved although there is still room for improvement. Indicator 4 shows that the satisfaction level of participants in Lesson Study in year 2012 was increased compared to that of year 2010.

Output 3: Capacities of schools in model District/Aimags to practice "the Teaching Methods" are enhanced.

Indicator 1	70% of teachers and management posts of all schools in model District/Aimags' complete
	the training on "the Teaching Methods" based on the training package.
Indicator 2	80% of all schools in model District/Aimags formulate "Lesson Study implementation plan".
Indicator 3	Lessons learnt and recommendation on teaching methods improvement from model District/
	Aimags are collected.

Output 3 has been mostly achieved. Regarding Indicator 1, more than 70% of teachers and school managers completed training in each model District/Aimag. About Indicator 2, more than 80% of model schools developed a Lesson Study implementation plan. Regarding Indicator 3, a management handbook to disseminate the Teaching Methods, which includes lessons learnt and recommendations collected through the implementation of the Project, is being developed and will be finalized in December 2012.

Output 4: The environment to disseminate and establish "the Teaching Methods" in PRESET is improved.

Indicator 1	"The Teaching Methods" in the training package is introduced to PRESET.	
Indicator 2	Policy recommendation is adopted by Ministry of Education, Culture and Science (MECS)	
	in its annual policy objectives.	

Output 4 has been mostly achieved. Lesson Study as a tool to disseminate the Teaching Methods was incorporated into the curricula of Faculty of Chemistry and Faculty of Physics at National University of Mongolia, and it is also being introduced in Mongolia State University of Education. On the other hand, Indicator 2 was not appropriate to show the achievement of Output4 though the indicator was achieved.

# (2) Project Purpose

Project Purpose: Systems to disseminate "the Teaching Methods" nationwide are strengthened.

Indicator 1	The quality lessons utilizing the Teaching Methods in the 8 subjects are practiced in model
	schools.
Indicator 2	"Lesson Study" is conducted at least twice in at least the 70% of schools in model District/
	Aimag every year.
Indicator 3	All Districts/Aimags formulates the training plan on "the Teaching Methods".
Indicator 4	Political, financial and human resources commitment are made by MECS.

The Project Purpose has been mostly achieved. Regarding Indicator 1, according to the results of monitoring by the project team, though most of the subjects scored more than three out of five-scale evaluation, there is room for improvements in some subjects in certain District/Aimags. Indicator 2 and 3 have been achieved. Indicator 4 has been mostly achieved except for development of an action plan by MES to disseminate the Teaching Methods.

# 3-2 Evaluation by Five Criteria

	<ul> <li>After the mid-term review, circumstance of the project changed that INSET is under the responsibility of IUTP, which is a newly established organization resulted from political reformation.</li> </ul>
Effectiveness	<ul> <li>Effectiveness of the Project is medium.</li> <li>The Project Purpose has been mostly achieved with remaining issues regarding quality of lessons and development of action plan on dissemination of the Teaching Methods by IUTP.</li> <li>The outputs are mostly achieved that teachers, school managers, DEC staff and Professional Team members acknowledge that their capacities were developed through the Project.</li> <li>The approach to disseminate the Teaching Methods through Lesson Study was effective to strengthen capacities of teachers in short period of time. Moreover, as it is an approach to promote teamwork, capacities were enhanced not only at individual level but also at school level.</li> <li>Coordination with other interventions such as Social Sector Support Program and Japan Overseas Cooperation Volunteer raised the efficiency of the Project.</li> <li>Although qualitative data gathered sufficiently but quantitative data to show improvements at teacher and student levels was not collected by the Project sufficiently.</li> </ul>
Efficiency	<ul> <li>Efficiency of the Project is high.</li> <li>Lesson Study is a practical and cost-efficient training that it does not require special venue and traveling fees, and produces results in short period of time.</li> <li>MES speared certain amount of budget for the Project and DECs and schools also conducted related activities utilizing their own resources.</li> <li>Outputs of the Phase I of the Project, which are teachers' guides and Professional Team members, were optimized.</li> </ul>
Impact	<ul> <li>Impact of the Project is relatively high.</li> <li>Overall goal is presumed to be achieved that one of the two indicators has already achieved. Besides, though the other indicator is not fully achieved, yet 476 schools out of all the 747 schools (64%) in the country conducted Lesson Study at least once during the project period.</li> <li>Positive impacts at student level are observed by teachers such as more active participation in class, and higher motivation to study. In addition, related training and other activities were conducted in model and non-model areas utilizing their own resources; many model and non-model schools conduct Lesson Study not only in eight subject targeted by the Project, but also other subjects such as Mongolian Language and History; one of the Professional Team members will participate in an international conference and make a poster presentation on the case study of Lesson Study.</li> </ul>

# • Sustainability of the Project is medium.

• It is likely that dissemination of the Teaching Methods will be incorporated in the education reform, which will be conducted from 2012 to 2016. However, because IUTP is a new organization, recruitment of staff is still ongoing, and the details of the plan have not been determined yet.

# Sustainability

- Specific budget has not been allocated to disseminate the Teaching Methods after the end of the Project. However, MES stated that it would secure necessary budget.
- The current teacher evaluation system does not incorporate teacher's practice on the Teaching Methods.
- Capacities of MES, Districts/Aimags and schools were developed through the Project.
   However, there is room for improvement in quality of lessons and Lesson Study, and continuous technical supports by MES and PT will be necessary.

# 3-3 Factors Contributing in the Production of Effect

# (1) Planning

# Relatively longer duration of supports since the first phase

The foundation to disseminate the Teaching Methods was laid by the first phase. Especially, the Professional Team became able to make proper comments and advice in Lesson Studies enable the Project to carry out activities of Phase II without significant difficulties. Moreover, good relationship with the Mongolian side developed during the first phase enabled the Project to operate smoothly.

Introduction of practical Lesson Study approach

Lesson Study functioned as a practical tool to practice the Teaching Methods for teachers. Capacities of teachers were strengthened through Lesson Study, which has contributed to enhanced teamwork among teachers, effective use of blackboard, development of lesson plan focusing more on children, and particularly creation of a culture of critical collaborative inquiry in school. Capacities of Professional Team and DECs were also strengthened to observe lessons and provide appropriate advice and comments to teachers. Lesson Study can also involve other schools easily by inviting them as observers. This nature of Lesson Study allows quick dissemination of the approach.

### (2) Implementation Process

# High level of ownership at the Mongolian side

MES secured budget for the Project. DEC and schools also conducted activities utilizing their own resources. In addition, MES stated that they will work out a concrete plan for continuous professional development of teachers in Mongolia, utilizing IUTP as a core implementing agency. Such evidence and commitments show that the foundation for disseminating the Teaching Methods has been consolidated.

Availability of teachers' time to engage in Lesson Study

Teachers in Mongol are required to stay at school to engage in school affairs for certain hours even after they finished teaching all the classes of the day. Therefore, they had enough time to engage in activities of the Project, otherwise they would have engaged in second job outside the school.

#### 3-4 Problems and Factors that Raised Problems

#### (1) Planning

<u>Insufficient teachers' understanding regarding contents of the Teaching Methods</u>

Although teachers learned how to conduct Lesson Study, their understanding level on child-centered teaching methods is still not sufficient. Therefore, the Project tried to accompany Professional Team member every time they conduct Lesson Study, in order to show what the appropriate advice for the teachers to practice child-centered teaching is.

Insufficient teachers' knowledge regarding contents of subjects

It was indicated by JICA experts that teachers' knowledge regarding subjects is not sufficient, and it is one of the constraining factors to improve quality of lessons. Thus, the project requested every school to prepare Lesson Study by team including school managers. Besides, the Project carried out study session on some subjects (math and natural science) how these subjects are taught in Japan, in order for teachers to understand more about the objectives teach the subjects.

### (2) Implementation Process

Load on Professional Team members and model schools to disseminate Lesson Study

Professional Team members mentioned that allowance for monitoring visit is not sufficient, and condition of accommodation is difficult. Also, schools need to adjust schedule to provide training for non-model schools. Some schools mentioned that they do not have sufficient budget to conduct training for non-model schools. After the Project requested MES, travel allowance has been allocated to participate in the training or monitoring in non-model Aimags/Districts and non-model schools.

### 3-5 Conclusion

Through the careful examination of outputs and indexes and other impacts attained, the Project Purpose has been mostly achieved. The Project has high relevance that is aligns with the policy of both Mongolian and Japanese side. Although the Project effectiveness is medium due to the INSET system renovation and uncertainness of the Mongolian side's implementation body, yet without these external factors, the method of Lesson Study is effective to achieve the Project purpose. It could be confirmed through the unexpected positive impacts generated from the Project. For example, the Lesson Study activity has expanded to nontargeted areas and subjects. Currently the model and non-model schools conduct Lesson Study not only on the eight target subjects, but also other subjects. There are also positive impacts on students such as active participation in class, higher motivation to study, and so on. Some of DECs in non-model Districts/Aimags conduct training and Lesson Study with their own initiatives and resources. It clearly shows that a part of the overall goal has achieved.

On the other hand, understanding about the Teaching Methods and Lesson Study in non-model Districts/ Aimags is not as high as that of the model District/Aimags. Even model District/Aimags need to deepen understanding about the Teaching Methods through Lesson Study. And the concrete action plan for dissemination of the Teaching Methods needs to be developed by IUTP in close collaboration with MES. This implies that sustainability of the project from financial and institutional aspects should be ensured.

In this regard, the Mongolian side requested that JICA extend the Project for a certain period of time to strengthen the capacity of disseminating the Teaching Methods. MES stated that Professional Team will, based on the mutual contract, cooperate with IUTP in developing capacities of specialists in IUTP, implementing the Lesson Study, and developing the training module for dissemination of the Teaching Methods. MES considers that the dissemination of the Teaching Methods will be included as one of the key activities of IUTP and

JICA's technical support to develop the dissemination plan will be necessary. With the thorough consideration on the results of the evaluation, a short period of extension will be reasonably necessary that it leads to a sustainability of the Project and further positive impacts by expanding to non-model areas.

# IV. Recommendations

# (1) Utilizing Professional Team and Specialists in DECs

In order to continuously enhance the quality of lesson and Lesson Study, it is essential to have external observers (Professional Team and specialists in DECs) other than school teachers to provide advice and comments. The following measures are expected to be taken.

### (a) Professional Team

It is recommended that the mechanism be established to enable PT to visit schools in Districts/Aimags and attend teleconferences connected to those sites. In addition, in order to encourage PT members (mostly university professors), it is recommended to strengthen linkage their research work with Lesson Study activities. For example, it would be effective to encourage professors to attend international conferences on Lesson Study, or to establish academic society on Lesson Study in Mongolia.

# (b) Specialists in DECs

Specialists in DECs have an important role to support schools to enhance the quality of Lesson Study because they are supposed to closely monitor schools. It is recommended that: 1) including monitoring work for Lesson Study in their professional responsibilities; 2) appointment of capable persons and training on the Teaching Methods; and 3) allocation of budgets for monitoring schools.

#### (2) Considering Teacher's Engagement in Lesson Study in their Career Path

MES stated that the evaluation system for teachers will be improved for focusing more on the performance of teachers and students. As one of items of personnel assessment, teachers who are engaged in Lesson Study should be positively evaluated in their career development.

#### V. Lesson Learned

#### (1) Involving Faculty Members of Universities

Not only DECs and schools, university professors are involved as Professional Team in the project activities. Those human resources with academic expertise are valuable to enhance the quality of Lesson Study. Also, such involvement contributes to introducing the Teaching Methods to PRESET in universities.

### (2) Realizing Self-efficacy of Teachers at the Early Stage of the Project

Through implementing Lesson Study, teachers have recognized various impacts on students and teachers themselves. Those successful experiences led to their self-efficacy, encouraging them to be more actively involved in Lesson Study. So it is vital for the target group to feel the self-efficacy and confirm the effectiveness of the Project at the early stage.

# (3) Reaching Out to Non-model Areas for Nationwide Dissemination

In addition to intervention to model areas, some extent of intervention such as training and monitoring on Lesson Study has been implemented for non-model areas. It prompted some non-model DECs and non-model schools to implement and disseminate Lesson Study with their own initiatives and resources during the project period. With the achievement of the Overall Goal in perspective, it would be effective to include

some extent of intervention in non-model areas as well in the original project design.

# (4) Setting Indicators to Measure Attitude Changes of Teachers and Students

In order to show clear results of education projects, it would be effective and persuasive to set indicators on how attitudes of teachers and students are changed before and after intervention.