Department of
Educational Planning and Training
(DEPT)
Ministry of Education
The Union of Myanmar

Japan International Cooperation Agency (JICA)

DEVELOPMENT STUDY FOR THE IMPROVEMENT OF QUALITY AND ACCESS OF BASIC EDUCATION IN THE UNION OF MYANMAR (MBESS)

FINAL REPORT I



December 2002

International Development Center of Japan (IDCJ)

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PREFACE

In response to a request from the Government of the Union of Myanmar, the Government of Japan decided to conduct a "Study for the Improvement of Quality and Access of Basic Education" and entrusted the study to the Japan International Cooperation Agency (JICA).

JICA selected and dispatched a study term headed by Dr. Norimichi Toyomane of the International Development Center of Japan to the Union of Myanmar from March 2001 to August 2002. In addition, JICA set up an advisory committee headed by Mr. Yu Sato, Professor of Hokkaido University of Education at Iwamizawa Campus during the period of the Study, which examined the study from specialist and technical points of view.

The team held discussions with the officials concerned of the Government of the Union of Myanmar and other stakeholders in the education sector, and conducted field surveys and pilot activities in the study area. Upon returning to Japan, the team conducted further studies and prepared this final report. I hope that this report will contribute to the further development of basic education of the Union of Myanmar.

Finally, I wish to express my sincere appreciation to the officials concerned of the Government of the Union of Myanmar for their close cooperation extended to the study.

December 2002

Takao Kawakami

W上隆朝

President

Japan International Cooperation Agency

Letter of Transmittal

December 2002

Mr. Takao Kawakami President Japan International Cooperation Agency Tokyo, Japan

Dear Mr. Kawakami:

I am pleased to submit to you the final report of the Development Study for the Improvement of Quality and Access of Basic Education in the Union of Myanmar. This report presents the results of the study carried out by the International Development Center of Japan in accordance with the Terms of Reference given by the Japan International Cooperation Agency.

A team of consultants headed by me conducted the study in Myanmar during March 2001-October 2002 in collaboration with the counterpart agency, the Department of Educational Planning and Training (DEPT), Ministry of Education.

The central issue addressed by the study was how to introduce the child-centered approach into the basic education of Myanmar. To tackle this issue on three fronts simultaneously, the study consisted of three components: Component A for developing Teacher's Guides (Basic Science, Social Studies and General Studies); Component B for strengthening Education Colleges; and Component C for improving primary school buildings. This report describes the process and output of the three components. In addition, three Models of Teacher's Guide, materials to be used in Education Colleges, and the Manual for Improvement Planning for Primary School Buildings are compiled separately as attachments to this report.

In conducting the study, we worked closely with the DEPT, Department of Basic Education No. 1, Department of Basic Education No. 2, Department of Basic Education No. 3 and other related authorities. On behalf of the team, I would like to express my deepest appreciation to the officials concerned for their commitment and cooperation.

I would also like to express my gratitude to the JICA representative office and the Embassy of Japan in Myanmar for their generous encouragement and assistance. Finally, my heartfelt appreciation is also due to all the people who contributed something to the successful completion of the study.

Yours faithfully,

Norimichi Toyomane

Team Leader

Development Study for

the Improvement of Quality and Access

of Basic Education in the Union of Myanmar

DEVELOPMENT STUDY FOR THE IMPROVEMENT OF QUALITY AND ACCESS OF BASIC EDUCATION IN THE UNION OF MYANMAR

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Abbreviations and Glossary

ACIS All Children in School Project
AFT Area Focused Township

ASEAN Association of Southeast Asian Nations
ATEO Assistant Township Education Officer

AY Academic Year
B.Ed. Bachelor of Education
BEHS Basic Education High School

BEHSE Basic Education High School Examination

BEMS Basic Education Middle School
BEPS Basic Education Primary School

CAPS Continuous Assessment and Progression System Project

CCA Child-Centered Approach
Cert. Ed. Certificate in Education
CFS Child Friendly School Project
CGI Corrugated Galvanized Iron

CHRD Center for Human Resource Development

CLC Community Learning Center CPR Comprehensive Personal Record

CSO Central Statistics Office

DBE Department of Basic Education

DEPT Department of Educational Planning and Training

DHE Department of Higher Education
Dip. T. Ed Diploma in Teacher Education

EC Education College

EDC Education Development Center

EFA Education for All

EPP Education Promotion Program

ESS Education Sector Study (Conducted by MERB and UNESCO)

G1 Grade 1

HDI Human Development Initiative

IOE Institute of Education

IPPSB Improvement Plan for Primary School Buildings

IRA International Reading Association

JAT Junior Assistant Teacher

JICA Japan International Cooperation Agency
KG Kindergarten (the first year of primary school)

LCA Learner-Centered Approach

MBESS Myanmar Basic Education Sector Study

M. Ed Master of Education

MEDA Myanmar Education Development Associations
MERB Myanmar Education Research Bureau

MOE Ministry of Education
MOI Ministry of Information
MTT Mobile Training Team

NCHRD National Center for Human Resource Development

ODA Official Development Assistance
PAT Primary Assistant Teacher

PGDMA Post Graduate Diploma in Multi-Media Arts (Education)

PGDT Post Graduate Diploma in Teaching

PTA Parent Teacher Association
SCC School Construction Committee

SHAPE School-based Healthy Living and HIV/AIDS Prevention Education Project

SAT Senior Assistant Teacher

TEC Thingungyun Education College
TEO Township Education Officer

TSCSC Township School Construction Supervising Committee

TTC Teacher Training College

TTS Teacher Training School

TTTI Technical Teacher Training Institute

UDNR University for the Development of National Races

UNDP United Nations Development Programme

UNESCO United Nations Education, Science and Culture Organization

UNICEF United Nations Children's Fund YEC Yankin Education College

YECPS Yankin Education College Practicing School

CHAPTER 1 INTRODUCTION

1.1 Outline of the Study

MBESS

"The Development Study for the Improvement of Quality and Access of Basic Education in the Union of Myanmar" has been conducted as a technical cooperation project between the Department of Educational Planning and Training (DEPT), Ministry of Education, the Union of Myanmar, and the Japan International Cooperation Agency (JICA). The abbreviated title of the Study is "Myanmar Basic Education Sector Study (MBESS)." Its duration is April 2001-October 2002.

Objectives

The Study has four objectives:

- 1) To develop *Model Teacher's Guides* for "General Studies," "Basic Science" and "Social Studies" at the primary level, introducing the "activity-oriented" teaching methods;
- To formulate a plan to upgrade the Education Colleges physically and academically, enabling them to effectively familiarize teachers with the "activity-oriented" teaching methods;
- 3) To develop a model plan to improve primary school buildings; and
- 4) To strengthen the planning and management capability of the Myanmar counterpart personnel.

Components

The Study consists of three separate but closely interrelated components. They are:

Component A Teacher's Guides
Component B Education Colleges

Component C Primary School Buildings

Component A develops the teacher's guides for the three subjects (General Studies, Basic Science and Social Studies) to be taught at the primary level. More specifically, the target levels are set as follows:

General Studies Kindergarten, Grades 1 and 2

Basic Science Grades 3 and 4 Social Studies Grades 3 and 4

Due to time constraint, only a few selected topics from each subject were dealt with under this Study. The guides were developed in cooperation with staff in Department of Education

Planning and Training (DEPT), Ministry of Education, teachers of Yankin Education College Practicing School (YECPS) and Basic Education Schools, and teacher educators of the Yankin Education College (YEC) and the Thingungyun Education College (TEC).

Component B deals with all the 19 Education Colleges. However, the development of an appropriate training curriculum and teaching methods for the three subjects were carried out together with teacher educators at the Yankin Education College. The College provided opportunities as well for model or trial courses to be tested in the real classes. This component also looked into the situation of facilities and equipment at the Education Colleges to make recommendations on their physical improvement.

Component C covers four model townships, each representing one of the four climatic zones in the country. They are 1) delta zone, 2) coastal zone, 3) cool and hilly zone and 4) dry zone. All primary schools located in the four townships are studied to assess the physical conditions of the school buildings.

Coverage

Component A conceptually covers all primary schools in Myanmar. However, one primary school is selected from the Yangon area as the pilot school where the Teacher's Guides developed by the Study are tested in the real classrooms by teachers. The selected school is the Yankin Education College Practicing School.

Component B deals with all of the 19 Education Colleges throughout the country to assess their existing conditions. The development of curriculum was carried out jointly with the teacher educators at the Yankin Education College. Model classes were also held there with participation of college students.

Component C has selected the four townships below as the model townships. All primary schools in the model townships have been studied.

Zone	Model Township	State/Division	No. of Primary Schools
Delta Zone	Dala	Yangon	24
Coastal Zone	· Gwa	Rakhine	108
Cool and Hilly Zone	Theinni	Shan	42_
Dry Zone	Myinmu	Sagaing	89
Total		•=	263

Source: JICA Study Team

Outputs

Component A produces the following outputs:

Model "Teacher's Guide for General Studies" (KG, Grades 1 and 2)

Model "Teacher's Guide for Basic Science" (Grades 3 and 4)

Model "Teacher's Guide for Social Studies" (Grades 3 and 4)

Manual for Science Experiments (Grades 3 and 4)

CCA demonstration video for General Studies

CCA demonstration video for Basic Science

CCA demonstration video for Social Studies

Component B's outputs are:

Reports on model lessons in Education Colleges

("Improving Lessons for Active Learning in Education Colleges – Some Ideas on Learner-Centered Approach (LCA)-")

CCA handbook for Education College Trainees

("Understanding Child-Centered Approach -for Teachers in New Era-")

Reports on block teaching

("Action Research on Block Teaching -Review of Current Practice and Some Suggestions-")

Component C mainly produces:

Manual for improvement planning for primary school buildings Monitoring report on the Dala township grassroots grant project

Phasing

MBESS has been implemented in three phases. The phases have following main objectives:

Phase 1	April-August 2001		
Component A	Situation analysis		
Component B	Situation analysis		
Component C	School survey, prioritization, zone-specific standard design, cost estimation		
Phase 2	October 2001-March 2002		
Component A	Pilot lessons for selected topics Child-Centered Approach Workshops		
Component B	Pilot classes/training sessions		
Component C	Manual for improvement planning for primary school buildings		
Phase 3	May-September 2002		
Component A	Development of model teacher's guides		
Component B	Development of textbooks		
Component C	Monitoring report on the Dala township grassroots grant project		

1.2 Summary of Activities

Summary of Activities: Component A

Component A's work has been conducted on two separate but closely linked fronts: pilot lessons at the pilot school and the Child-Centered Approach Workshop.

Pilot lessons are intended to field-test model lesson plans to be included in the teacher's guides. Emphasis is put on the classroom application of the child-centered approach in developing the lesson plans. A Working Group was first formed for General Studies, Basic Science and Social Studies, respectively. The Groups then took initiative to develop model lesson plans and conduct lessons in the pilot school. The whole preparation was done during October-November 2001. Actual pilot lessons were conducted throughout the subsequent period, December 2001 to February 2002.

The Child-Centered Approach (CCA) Workshop is an activity newly incorporated into Component A since the end of Phase 1. Following the successful accomplishment of the first workshop in July 2001, three more workshops were held in Phase 2 in Mandalay, Taunggyi and Yangon. Additional small workshops were also held in some other cities. In Phase 3, the activity was further extended to cover nine Education Colleges in the country. The purposes of the workshops are to expose Myanmar teachers and teacher educators to the concept of child-centered education and its practice, and to give opportunities to some core people (resource teachers, etc.) to consolidate their own understanding and spread the new teaching skills to their colleagues throughout the country. In the workshops, one session was especially designated for demonstrating science experiments, which are a typical example of activity-oriented teaching but rarely conducted in Myanmar primary schools. To address this particular problem, the Workshop on the Primary School Science Experiment and Practice was held in March 2002 as part of the CCA workshop program. (Some more descriptions on the workshops are found in the last section of this Chapter.)

Summary of Activities: Component B

Following the situation analysis done in Phase 1, Component B has revolved around three main activities in Phases 2 and 3: developing and conducting model lessons at the Yankin Education College, action research on block teaching, and developing a guidebook on the child-centered approach.

Model lessons (Activity 1) were developed by a 16-member Working Group. As the first step, the members all participated in a six-day program, Problem Solving and Critical Thinking Workshop, held during November 29-December 7, 2001. Applying techniques introduced in the workshop, the members then developed model lessons to be taught to first-year trainees at the Yankin Education College. The actual lessons (15 class units in total) were delivered during one month from January 10 to February 7, 2002. Post-lesson evaluation indicates that both trainers and students are very positive about the new concept and techniques.

Action research on block teaching (Activity 2) is intended to ultimately improve block teaching as currently practiced in Myanmar. In view of the critical importance of block teaching in modeling the prospective teachers, the current practice has a number of shortcomings, which are hardly recorded or analyzed. Action research is therefore proposed as the first step towards a systemic overhaul and reorganization of the practice. Another Working Group has been formed. They conducted a questionnaire survey of students, interviewed

journal, specifically developed for this research, during the two-month period in the field. The whole results are compiled and analyzed in a report.

A guidebook on the child-centered approach (Activity 3) is developed as an outcome of Component B. Such a practically-oriented material suitable for real classroom situations in Myanmar is not available. In Phase 2, real school needs were assessed particularly in rural primary schools in Rakhine. The guidebook was developed in Phase 3 based on the preparatory work done in Phase 2.

Summary of Activities: Component C

The main body of Component C's work was completed in Phase 1 (school survey, prioritization, school designing and cost estimation). In this Phase 2, Component C subsequently developed the *Manual for Improvement Planning for Primary School Buildings* (December 2001) as a comprehensive guide on how to plan the improvement of primary school buildings. The Manual was first presented at the Third Workshop (November 22, 2001) for the counterpart's review. At a subsequent Seminar held on December 7-9, 2001, the Manual was further presented to a larger audience including engineers and architects of DBEs (Departments of Basic Education). The latter half of the Seminar was devoted to an on-site training for prospective school surveyors, who used the Manual to conduct a school survey and prepare a cost estimate for the school's physical improvement.

Since the ultimate objective of Component C of this study is to improve Myanmar primary school buildings, the logical next step should be to embark on their actual improvement. This undertaking, however, needs to be pursued in two directions.

One is to conduct **school survey** in other townships than the four models, eventually covering all primary schools in the country, to identify their physical conditions and systematically prioritize their needs. The manual mentioned above will be particularly relevant and useful for this purpose. In fact, following the seminar in December 2001, the Myanmar government (DEPT, DBE1, DBE2 and DBE3) has organized a special team made up of government officials and in March 2002 launched school survey in the following four townships: Kawmhu (Yangon Division), Pantanaw (Ayeyarwaddy Division), Nyaungdon (Ayeyarwaddy Division) and Htantabin (Yangon Division). This survey, covering 642 schools in total, is scheduled to completed mid-April. The school survey further continued to cover six more townships but the schedule has yet to be decided.¹

The other direction to be pursued is to finance actual **rehabilitation work**. Given the financial situation of the Myanmar government, however, it is imperative to seek external assistance to finance the rehabilitation program. In view of the fact that in actuality the Myanmar government has few sources to turn to, one prospective source is the grant assistance of the Japanese ODA (Official Development Assistance) program. This study would therefore

Six other townships are: Tharyarwadi, Thanatpin (Bago Division); Patheingyi, Sintgai (Mandalay Division); Aunglan (Magway Division); and Sagaing (Sagaing Division).

Japanese ODA (Official Development Assistance) program. This study would therefore recommend the Myanmar government to apply for a Japanese grant on the basis of the results both from MBESS and from its own school survey.

It should be noted that part of the primary schools in the model townships have recently received a grassroots grant from the Japanese government for rehabilitating their buildings. Eight primary schools in Dala township sealed a grant contract with the Japanese Embassy on March 6, 2002. The US\$75,125 grant will be spent to implement their "Eight Primary Schools Renovation Project in Dala Township" in a year through March 6, 2003. The application heavily drew on the outcomes of Component C survey and its success would indicate a possibility of similar move by schools in other townships under the coordination by DEPT.

Child-Centered Approach (CCA) Workshop

One important finding of situation analysis of Phase 1 was that improved teacher's guides alone would not be enough to introduce the "activity-oriented" teaching methods into the Myanmar primary schools. Because most primary teachers do not have any concrete idea about the "activity-oriented" teaching methods, it is evident that the very first step should be to expose them to the new methods in real classroom situations. The JICA Study Team therefore organized a first workshop ("Child-Centered Learning Workshop" as initially called) in July 2001, towards the end of Phase 1, at the Yankin Education College in Yangon.

The workshop was successful and generated a strong interest and enthusiasm on the Myanmar side. In response to DEPT's request, JICA swiftly decided to incorporate this workshop into the Phase 2 program as a crucial new element of Component A. Accordingly, the JICA Study Team and the DEPT counterpart team jointly organized and held additional workshops in Mandalay, Taunggyi and Yangon. Small workshops were also held in other cities. Its title was changed to the "Child-Centered Approach Workshop."

In Phase 3, nine additional workshops were held at nine Education Colleges: Toungoo, Pyay, Mandalay, Meikhila, Pathein, Taunggyi, Mawlamyine, Magway and Pakokku. To conclude the whole workshop activities, a Seminar for Technical Transfer was held on July 30-31, 2002, at the Yankin Education College.

One spin off of the CCA Workshop is the Workshop on the Primary School Science Experiment and Practice, organized jointly by DEPT and the JICA Study Team and held on March 7-8, 2002 at the Yankin Education College. In this Workshop, Myanmar resource persons demonstrated a number of science experiments to curriculum developers, teacher educators and primary school teachers. The resource persons were all former participants of a JICA-assisted three-month training program conducted in Hokkaido, Japan. So far 15 Myanmar people have taken this program since 1996 and nine of them living in and near Yangon took part in this workshop as resource persons and demonstrators. The workshop was attended by about 50 participants (trainees). Classes of students of the Yankin Education College also observed part of the demonstrations.

CHAPTER 2 CONCEPT OF CHILD-CENTERED APPROACH (CCA)

2.1 Concept of Child-Centered Approach (CCA)

The present rapid social changes have brought further complexity in knowledge, information and technology that teachers and children have to deal with. In this situation, there is a need to effectively attract the attention and interest of children in school education through transforming the conventional teacher-oriented approach into the child-centered approach (CCA).

Myanmar's conventional teacher-oriented approach, whose activity is mainly rote memorization, does not provide children with the capacity to understand the complex content of various fields of study and techniques necessary for everyday life. In addition, it cannot improve children's thinking ability nor contribute to solving problems around them. It can provide children only a large amount of knowledge without any chances to think deeply about it.

Rather than attempting to pass on to children knowledge through the teacher-to-children-one-way process, CCA recognizes rich receptivity in children and seeks to build upon it through concrete experience, with the joy and excitement of experimental knowledge. CCA is based on the idea that children originally have inborn rich sensitivities and limitless talents and capability.

To facilitate CCA process, teachers need to prepare effective educational materials with attractive and simple practice and to bring enthusiasm and creativity to the classroom. As CCA draws upon children's interests and attractiveness that naturally stimulate children to learn, teachers are required to clearly understand its concept, utilization and effectiveness. Furthermore, teachers must be knowledgeable of children's psychology; desire, willingness, interests and feelings. Teachers must understand children as broadly and deeply as possible. Therefore, it is significantly necessary for teachers to build a strong relationship with parents and the communities where children live, and to look carefully into various issues faced by children.

2.2 Steps for Improvement

For the implementation of the child-centered approach (CCA) in schools, there are many obstacles in the current situation of primary education. Effective implementation of CCA may be difficult unless these obstacles are reduced or removed. The JICA Study Team is deeply concerned about such obstacles and tried to find solutions with the Myanmar counterparts. The Team divided the obstacles into three parts; i.e., issues related to teaching methods at primary schools, issues for teacher education, and issues for school facilities, and sought some clear directions for improvement.

2.2.1 Teaching Methods at Primary Schools

Since new subjects and new teaching concepts were introduced in the academic year 1998-1999, teachers in school have faced major obstacles in teaching. The new concept of teaching is the so-called "activity-oriented approach," which is mentioned in the country's new curriculum.

However, because the incumbent neither has had the training for it, nor do they have enough knowledge or skills, the one-way (teacher-to-students) approach is frequently used in primary education throughout the country. Students are usually required to repeat and memorize the phrases and sentences in the textbook. They have little chance to participate in various activities, such as group discussion and observation. In this way, the study may neither be fun nor pleasurableand is sometimes painful.

In addition, students are frequently asked questionsthat have one fixed answer. Students are usually required to answer quickly (The Teacher's Manual often instructs teachers to have students answer simultaneously). To do this, students have to memorize the textbooks. They are not given the opportunity to think about the questions carefully and to create their own answers. In this situation, students may not obtain the ability of thinking, insight and creativity, as well as necessary skills and knowledge for their lives.

The Teacher's Manual is currently the only instruction that indicates teaching methods. Therefore, it should have clear objectives of the lessons and definite directions of teaching. The present Teacher's Manual contains the concept of lessons, learning objectives, teaching/learning aids and assessment, but it does not give specific or informative explanations. Many primary teachers do not know how to use the teaching aids or how to accomplish the learning objectives during the lessons, even if they carefully read the Manuals.

It is highly necessary that the current teaching practices in schools be improved through training the incumbent and developing the Teacher's Guides¹.

2.2.2 Teacher Education

In addition to the incumbent, the training of future primary teachers is also very important. It is necessary for the current trainees in the Education Colleges to gain enough knowledge, skills and capabilities to implement CCA. However, the Education Colleges still keep the conventional teaching methods and rarely implement workshops and seminars for CCA. This is because some of the teacher educators do not have enough knowledge and skills for the new approach and most of them are not fully confident to implement the new method. In addition, the current training condition in the Education Colleges, such as insufficient training period and too many trainees, also makes the introduction of the new method difficult.

So, it is necessary to improve the situation of the Education Colleges and to promote efficient pre-service training courses.

2.2.3 Facility Development and Improvement

The condition of primary schools varies from place to place, and from school to school. For example, the schools in urban areas, such as Yangon and Mandalay, are usually overcrowded,

¹ In this project, the definitions of the Teacher's Manual and the Teacher's Guide is as follows; the Teacher's Manual is the current existing one, and the Teacher's Guide is the one that the JICA project has created with the cooperation of the Myanmar counterparts.

with 60 to 80 students in one class. The severe shortage of classrooms may cause this overcrowded situation. In such classrooms, students cannot move around freely to do some activities. On the other hand, the classrooms seem spacious in the rural area, because of the small number of students in one class.

Most primary schools use long desks and benches, for three students each. These are too big and too heavy to move around. Therefore, re-arranging desks and benches may not be easy. In addition, other classroom furniture, such as the blackboard, is not well-maintained in many schools. The blackboard, being one of the most important pieces of furniture in the classroom, is usually faded on the surface and has many scratches, which makes what teachers write and draw difficult to see.

The present school condition may also create a major obstacle in implementing the child-centered approach. Therefore, some possible solutions should be examined thoroughly, and improving or renovating the current school buildings is much needed.

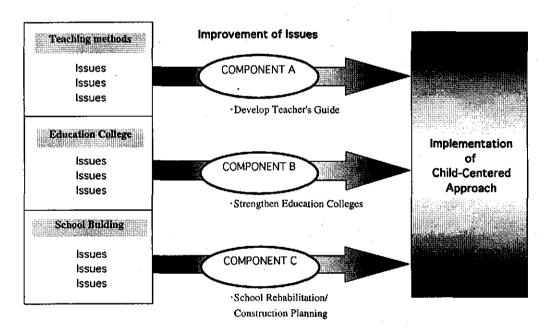


Figure 2-1: Steps for Improvement

COMPONENT A

CHAPTER 3 PROCEDURE OF COMPONENT A STUDY

3.1 Situation Analysis (Phase 1)

To create appropriate Teacher's Guides for Myanmar's primary schools, it is significantly important for the JICA Study Team to understand the real situation of primary education. In terms of supervision of primary education, Myanmar's primary schools are divided into two: schools supervised by the Department of Educational Planning and Training (DEPT) and schools administered by the Department of Basic Education (DBE). The former group of schools is affiliated with the Education Colleges, and is called "Practicing School." Another group is called "Basic Education Primary School (BEPS)," "Basic Education Middle School (BEMS)," or "Basic Education High School (BEHS)," depending on the level of education conducted in the schools¹. It is usually said that practicing schools can provide better education than BEPS, BEMS and BEHS, because of better facilities, higher availability of teaching/learning materials, and better quality of teaching staff.

The JICA Study Team had intensively visited various practicing schools, BEPSs, BEMSs and BEHSs in different places: urban, suburban and rural areas. They also observed teaching methods and the teaching/learning materials used. The number of schools visited reach more than 100.

During this period for the situation analysis, the JICA Study Team collected the following information:

- General Information for Primary Schools (Number of teachers and staff, number of students, number of classrooms, educational level of teachers, etc.)
- School Curriculum
- Classroom Situation
- Teaching Practicing
- Issues to be addressed, etc.2

¹ For example, schools conducting only primary level education are called "BEPS," schools conducting primary and middle level are called "BEMS," and schools conducting from primary to high level are called "BEHS."

² Detailed information is explained in the following sections.

3.2 Pilot Lessons (Phase 2)

In the second phase, the main activity is to conduct pilot lessons for General Studies, Basic Science and Social Studies at the designated pilot school, the Yankin Education College Practicing School (YECPS). The pilot lessons become important information for Teacher's Guides, which will be created at the end of this project.

3.2.1 Objectives of Pilot Lessons

Several topics were selected for the revision of the teaching/learning activity and the contents themselves. The pilot lessons were developed based on these selected topics and implemented at the pilot school during December, 2001 and February, 2002.

The pilot lessons aimed at the following three issues:

(1) To introduce the child-centered approach (CCA) through various methods and activities, and to enable teachers to grasp a concrete image of CCA

The child-centered approach (CCA) is a new concept for most teachers and teacher educators in Myanmar. To spread this new approach nationwide, they have to understand the purpose of this approach and its effective implementation clearly. The pilot lessons can offer information and ideas to them through work in cooperation with the JICA Study Team. In addition, it has been verified that CCA can promote children's interest in and motivation for studying, and that it can achieve children's deep understanding of the contents more effectively than the conventional teaching method.

(2) To examine if lesson plans are feasible in Myanmar's situation, and to take the first step to create appropriate lesson plans

The JICA Study Team first creates new lesson plans for General Studies, Basic Science and Social Studies with Myanmar's counterparts³. These new CCA lesson plans are totally new for most teachers and children. Even though lesson plans seem to be good from a theoretical point of view, it often happens that these lesson plans do not work in a real situation. It is significantly important to have them work well in the real situations of primary schools. Therefore, the lesson plans created by the JICA Study Team and the Myanmar's counterparts were tested at the designated pilot school, the Yankin Education College Practicing School (YECPS), to see whether or not these can be applied well.

After implementation, these lesson plans were discussed among the members of the JICA Study Team and the counterparts. In the case that they did not work well, these lesson plans were revised or renewed.

³ The JICA Study Team set up the working groups for General Studies, Basic Science and Social Studies, to create new lesson plans for CCA together.

(3) To produce resource teachers who are responsible for the development of CCA and to spread it throughout the country

The current Myanmar education sector does not have sufficient financial resources or highly qualified human resources. Under this limitation, it is needed to newly create resource persons to disseminate CCA in Myanmar's basic education sector. It is highly necessary to train people concerning education, such as personnel in Ministry of Education, primary school teachers, and teacher educators at the Education Colleges.

Some important issues for CCA are provided with these future resource persons through preparation of the pilot lessons; i.e., what knowledge is necessary for teachers and teacher educators, what experience is important for implementing CCA, how much time is needed for preparation of the lesson plans, what teaching/learning materials are useful to conduct CCA effectively, and what environment should be created. These people play an important role to extend CCA and create the future direction of Myanmar's basic education.

3.2.2 Procedure of Pilot Lessons

The pilot lessons were mainly implemented by Myanmar teachers in cooperation with the JICA Study Team. The main actors were Myanmar teachers and teacher educators, and the members of the JICA Study Team played the role of moderators and advisors. The following system was created to implement the pilot lessons effectively and smoothly.

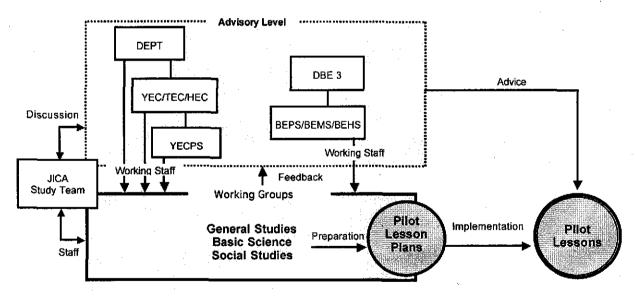


Figure 3-1: Working System for Pilot Lessons

Implementation Period Steps Preparation Organizing Official Working Groups Step 1 Step 2 Selecting Topics Analyzing Concerned Environment Step 3 Step 4 Analyzing Contents of the Topics Collecting Informatiuon for Pilot Lessons Step 5 Step 6 Creating Pilot Lesson Plans Preparing Teaching / Learning Materials Step 7 Arranging Class Schedule for Pilot Lessons Step 8 mplementation Step 9 Practicing to Teach Pilot Lesson Plans Step 10 Implementing Pilot Lessons in the Class Step 11 Observing and Monitoring Pilot Lessons Discussing Pilot Lessons and Excanging Opinions Step 12 Evaluation Step 13 Evaluationg Pilot Lessons Step 14 Revising Pilot Lesson Plans

Table 3-1: Steps for Pilot Lessons

Preparation (Step 1 to Step 8)

Step 1: Organizing the official working groups

To prepare the pilot lessons the working groups were officially formed by subject, General Studies, Basic Science and Social Studies, at the beginning of the second phase. These working groups were the main body of preparation, implementation, and evaluation of the pilot lessons. The members of the working groups were selected through discussion between their institutions and the JICA Study Team. They mainly consisted of staff of DEPT, teacher educators of Education Colleges of Yankin and Thingungyun, and primary teachers of YEC practicing school, Basic Education Primary Schools (BEPS) and Basic Education Middle Schools (BEMS).

Step 2: Selecting the topics

In the first phase, some topics were tentatively selected for the pilot lessons. At the beginning of the second phase, the members of the working groups thoroughly reviewed them to see whether these topics were appropriate for the pilot lessons. Then the working groups finally decided the topics for the pilot lessons. These topics were formally notified to related organizations and institutions, e.g., DEPT, DBE1, DBE2, DBE3, the Education Colleges, and YECPS.

Step 3: Analyzing the concerned environment (students, classroom, and materials, etc.)

Prior to preparation of new lesson plans, the working groups analyzed the class environment, including the character of students, the condition of classroom facilities, available instruments and teaching materials.

Step 4: Analyzing the contents of the topics

In line with analysis of the environment, the working groups reviewed the contents of the selected topics through carefully reading the current textbooks and the teacher's manuals. Then

the working groups intensively discussed the current learning objectives, teaching methods and evaluation/assessment techniques of each topic.

Step 5: Collecting information for the pilot lessons

Besides the analysis of the study environment and the contents of the topics, more information related to the topic contents was collected through researching and interviewing educational experts in Myanmar, such as available local materials for the lessons, and the regional differences of culture and natural environment. Such additional information was significantly important for creating the pilot lesson plans.

Step 6: Creating the pilot lesson plans

The pilot lesson plans were produced by the working groups, based on the idea of CCA. The members of the working groups focused on making practical and applicable lesson plans in Myanmar primary education. These plans included the following items;

- Topic
- Learning Objectives
- Teaching/Learning Materials
- Teaching/Learning Procedure

Step 7: Preparing teaching / learning materials

Based on the lesson plans, the working group prepared the necessary teaching aids. Most of them were created by the working group and some were purchased locally.

Step 8: Arranging the class schedule for the pilot lessons

Most pilot lessons were basically implemented under the current class schedule, though some were conducted under a specially arranged schedule, such as in the case of two-period lessons.

Implementation (Step 9 to Step 12)

Step 9: Practicing to teach the pilot lesson plans

The demonstrators (teachers) of the lessons practiced to master the techniques of teaching the new lesson plans during the working group meetings. The members of the working groups gave some advice and comments to the demonstrators in order to conduct the lessons effectively.

Step 10: Implementing the pilot lessons in class (APPENDIX 3-2 and 3-3)

The demonstrators (teachers) implemented the new lesson plans in YECPS under the observation of the working group members. Some lessons were implemented more than twice in different classes but others were conducted only once, depending upon the level of success.

Step 11: Observing and monitoring the pilot lessons

The pilot lessons were observed by the members of the working groups. Each pilot lesson was videotaped thoroughly. In addition, the observation sheets were prepared and the members of the working groups wrote their opinions on the sheets.

Step 12: Discussing the pilot lessons and exchanging opinions

After each pilot lesson, the working group held a meeting to exchange opinions about the pilot lesson and to revise the lesson plan to make it more effective.

Evaluation (Step 13 and Step 14)

Step 13: Evaluating the pilot lessons

The pilot lessons were evaluated twice, i.e., at the end of each pilot lesson and at the end of the implementation period of all the pilot lessons. The first evaluation focused more on lessons themselves, for example, the procedure and quality of the lessons, attitude of teacher, and students' interests. This evaluation was conducted in three different ways, i.e., evaluation by demonstrator, by students, and by observers. The working groups prepared three different evaluation sheets, consisting of the following items:

Evaluation Sheet for Demonstrator

- Satisfaction of implementation of the lesson
- Students' interest
- Most successful parts and reasons why
- Most interesting parts for students and reasons why

Evaluation Sheet for Students

Choose One	
() I like this lesson, because	
() I can not say that I like this lesson or not, because	
() I do not like this lesson, because	

Evaluation Sheet for Observers

- Smooth Lesson Procedure
- Clear explanations
- Teacher's communication with students
- Effective use of Teaching/Learning Materials
- Student's interest
- Successful implementation
- Safety code (in Basic Science)

The second evaluation, which was conducted after finishing the period for the implementation of the pilot lessons, focused on the appropriateness of the lesson plans in the Myanmar situation and the levels of the teacher's teaching techniques and skills. In terms of the appropriateness of the lesson plans, the working groups considered the following items:

- Suitability of the contents in different regions
- Availability of teaching/learning materials

In terms of the levels of teachers' techniques and skills, the working groups were concerned with the following items.

- Progress of teaching technique
- Progress of producing teaching/learning materials
- Progress of understanding the concept of CCA

Step 14: Revising the pilot lesson plans

Based on the evaluation results, the lesson plans were revised through intensive discussion and review of the demonstration. This was an important step for developing the Teacher's Guides in the third phase because these revised lesson plans will be the basis for the Teacher's Guide.

3.2.3 Coordination with Component B

It is significantly important for Component A to coordinate and to build a tight linkage with Component B. To create smooth communication with Component B; care was taken as follows:

(1) Personnel attend both working group meetings for Component A and B

To establish a tight relation with Component B, some working group members in Component A were designated as members of the working group in Component B. These persons played an important role to bridge the two components by informing the group members of the current progress of the other component.

(2) Identical lesson format is used

As the format for the CCA lesson, one particular format was tentatively prepared for the pilot lessons (Component A) and the model lessons (Component B). This format was used during the preparation of the pilot/model lessons⁴.

(3) Pilot lessons and model lessons are open for any personnel of Components A and B

The pilot lessons of General Studies, Basic Science and Social Studies, had been openly conducted to welcome any personnel of Components A and B. After the observation, it was required to fill in the evaluation sheet. Personnel in Component B observed some pilot lessons and gave useful comments to Component A from the teacher educator's point of view.

(4) Mini-workshops in the Education Colleges were held by the members of Component A

To let the staff in the Education Colleges understand the progress of Component A, miniworkshops were held in some Education Colleges by the members of Component A. The Education Colleges were Yankin Education College, Thingungyun Education College, Pakkoku Education College and Kyaukpyu Education College. These workshops provided more

⁴ Using this format was tentatively agreed to by DEPT in November, 2002, for the pilot and model lessons. However, this new format is different from the current format in Myanmar primary education. It is necessary to have consensus between the Myanmar side and the MBESS side, on what kind of format will be used in the Teacher's Guide and Education College Training Courses. As of the end of February, this new format is basically welcomed by the Myanmar side, through several consensus-building meetings.

information on Component A's progress and played a significant role in coordination with Component B.

(5) Information is frequently exchanged between the both components

Information on the progress both in Components A and B was regularly exchanged and shared. These opportunities guided Components A and B in the right direction toward the common goal of improving Myanmar primary education.

(6) CCA Workshops were jointly held by Component A and Component B working groups members

Throughout the phases, a number of CCA Workshops were held at education colleges throughout the whole country. The target participants were both primary school teachers and teacher educators. Facilitators of the workshops were both primary school teachers and teacher educators of the working members of Component A and B.

3.3 Creation of Teacher's Guides and Extension of CCA (Phase 3)

In the third phase, there are two main activities of Component A: creating Teacher's Guides for General Studies, Basic Science and Social Studies, and extending CCA to local areas. Each Teacher's Guide is corresponded to a CCA video, which visually introduces CCA lessons with some explanations of the main points. Extension of CCA is done by holding CCA Workshops in nine Education Colleges and a Seminar in Yangon.

3.3.1 Creation of Teacher's Guides

Teacher's Guides for General Studies, Basic Science and Social Studies are the main outcome for this project. These are based on the results of the pilot lessons conducted in the second phase. The procedure had the following steps:

Step 1: Preparing a working draft of Teacher's Guides

To make working group discussion easy, JICA Study Team primarily prepared a working draft of each Teacher's Guide. This draft included "CCA concept," "CCA assessment," "lesson plans" and necessary information. The "lesson plans" were basically the same as the ones created in the second phase, with some revisions. The working group discussed Teacher's Guides based on these working drafts.

Step 2: Making a working schedule

At the beginning of the third phase, the working group was called for the first meeting and they set a schedule for this phase. JICA Study Team worked carefully to arrange the schedule because some of working members are in both Component A and B. Basically the meeting for Component A was planned to be held in the afternoon on Monday, Wednesday and Friday, while the meeting for Component B was on Tuesday and Thursday.

Step 3: Reviewing and revising the working draft

In the working group meeting, the members discussed how to create Teacher's Guides, based on the working drafts. Because the working drafts were the only a material to provide some ideas to the members, the working group reviewed it carefully and revised it, if needed.

Step 4: Designing Teacher's Guide

After revising the content and information in Teacher's Guides, the working group took into consideration the design for Teacher's Guides. Page-design, writing-style, letter-font and illustration were chosen for primary teachers to understand it easily and to be attractive. In terms of illustration, the working groups employed professional illustrators to assist in completing Teacher's Guides.

Step 5: Creating CCA Videos

Paralleling with the Teacher's Guides, CCA videos for each subject were produced for primary teachers and education concerned personnel to visually understand CCA. The working group chose typical CCA lessons in each subject and produced CCA videos corresponding with the Teacher's Guides. The CCA videos showed several CCA model lessons with instruction of the

main points of the lessons. Primary teachers and education-concerned personnel could gain knowledge of how to make and implement CCA lessons.

3.3.2 Extension of CCA

To introduce CCA and spread this new teaching idea, the JICA Study Team has conducted CCA workshops at nine Education Colleges nationwide; Mandalay, Toungoo, Pyay, Meikthila, Pathein, Taunggyi, Mawlamyine, Magway and Pakokku. The working groups for General Studies, Basic Science, Social Studies (Component A) and Component B were rearranged to four mobile working teams, each of which consisted of 10 to 12 members. Each mobile working team took responsibility for two or three workshops. These workshops were implemented between June 23 and July 12.

In addition, the JICA Study Team organized the Seminar for Technical Transfer at Yankin Education College, Yangon to introduce CCA and spread this new concept by using newly created Teacher's Guides, CCA Handbook and Reference Book for Model Lessons.

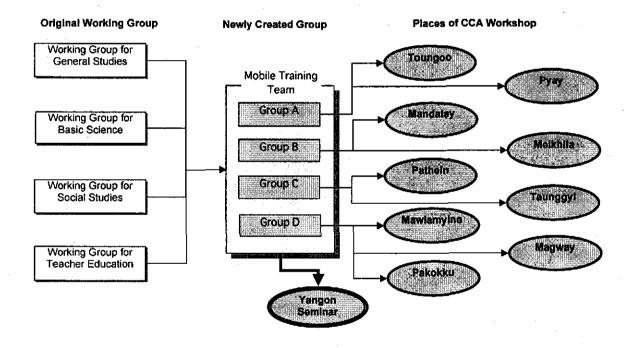


Figure 3-2: Mobile Training Team and Places for CCA Workshops

Working Group Members (Component A)

General Studies (11)

Daw Thin Thin Aung	Deputy Staff Officer (Life Skill))	DEPT
Daw Aye Win Kyi	Deputy Stuff Officer (Moral and	l Civics)	DEPT
Daw Win Win Aung	Junior Teacher (Life Skill)		DEPT
Daw Tin Moe Wai	Primary Teacher (Life Skill)		DEPT
Daw Myint Myint Than	Senior Teacher (Chemistry)		DEPT
Daw Tin Tin Yi	Assistant Lecturer (Geography)		YEC
Daw Khin Saw Hlaing	Primary Teacher	•	YECPS
Daw Mya Mya Thein	Primary Teacher		YECPS
Daw Khin Myat Htwe	Primary Teacher		YECPS
Daw Myo Sandar Aye	Primary Teacher	BEMS (1) Lanmaday	v
Daw Min Min Oo	Primary Teacher	BEPS (41) Hlaing Th	na Yar

Basic Science (10)

Daw Kyi Kyi Hla	Staff Officer (Science Curriculum)	DEPT
Daw Joanna	Deputy Staff Officer (Basic Science)	DEPT
Daw Ni Ni Aye	Deputy Staff Officer (Chemistry)	DEPT
Daw Khin Sandar Lwin	Senior Teacher (Basic Science)	DEPT
U Saw Zaw Nyunt	Assistant Lecturer (Physics)	YEC
Daw Khin Myat Sint	Assistant Lecturer (Physics)	YEC
Daw Wai Wai Oo	Assistant Lecturer (Science)	TEC
Daw Htar Htar Wai	Assistant Lecturer (Physics)	TEC
Daw Laban Bawk	Junior Teacher .	YECPS
Daw Yee Yee Win	Primary Teacher	YECPS

Social Studies (12)

Daw Khin Win Myint	Deputy Staff Officer (Social Studies)	DEPT
Daw Tin Mar Wei	Deputy Staff Officer (History)	DEPT
Daw Sint Sint	Deputy Staff Officer (Geography)	DEPT
Daw Thein Thein Yee	Senior Teacher (Geography)	DEPT
Daw Htay Htay Han	Senior Teacher (Social Studies)	DEPT
Daw Khin Cho Cho	Primary Teacher (Geography)	DEPT
Daw Thin Thin Soe	Primary Teacher (Geography)	DEPT
Daw Nu Nu Yi	Assistant Lecturer (Geography)	YEC
Daw Kyu Kyu Aye	Assistant Lecturer (History)	TEC
Daw Mu Mu	Assistant Lecturer (Geography)	TEC
Daw Cho Cho Win	Junior Teacher (History)	YECPS
Daw Than Than Aye	Junior Teacher (Geography)	YECPS

Working Group Meeting Schedule (Component A)

<Phase 2>

Date		General Studies	Basic Science/ Science Experiments	Social Studies
Oct. 31	w			WG (14:00-16:00) DEPT
Nov. 1	T		- :-	
2	F			
3	s			
4	S		·	
5	М			
6	T			WG (13:00-16:00) YEC
7	l w			140 (10:00-10:00) 120
8	T			+-
9	F	,		WG (13:00-16:00) YEC
10	s			VVG (10:00-10:00) 120
11	S			
	_	MC (14:00 17:00) VEC		
12	M	WG (14:00-17:00) YEC		WG (13:00-16:00) DEPT
13 14	W	MC (14:00 17:00) VEC		440 (10:00-10:00) DEP (
	_	WG (14:00-17:00) YEC	+	
15	T			WG (13:00-16:00) DEPT
16	F	MC (00:00 46:00) VEC		VVG (13.00-16.00) DEP1
17	S	WG (09:00-16:00) YEC		
18	S	14/0 (4 4 00 47 00) VEC		 - -
19	M	WG (14:00-17:00) YEC		MC (12:00 16:00) VEC
20	T	1000		WG (13:00-16:00) YEC
21	W	WG (14:00-17:00) YEC		_
22	T			110 (40 00 40 00) 1/50
23	F		WG (14:30-16:30) DEPT	WG (13:00-16:00) YEC
24	S	WG (09:00-16:00) YEC		<u> </u>
25	S			1,10,440,00,450,750
26	М		WG (14:30-16:30) DEPT	WG (13:00-16:00) TEC
27	T	WG (14:00-17:00) YEC	WG (14:30-16:30) DEPT	WG (13:00-16:00) YEC
28	W			
29	T		<u> </u>	
30	F		<u> </u>	
Dec. 1	S			<u> </u>
2	S			
3	M	WG (14:00-17:00) YEC	WG (14:30-16:30) YECPS	
4	T	WG (14:00-17:00) YEC	G3 PL (10:05-11:15)	WG (8:00-12:00) JS
		·	G4 PL (11:45-12:55)	WG (14:00-16:00) YEC
	<u> </u>		WG (14:00-15:00) YECPS	
5	W	WG (14:00-17:00) YEC		
6	T	WG (09:00-16:00) YEC	WG (14:30-16:30) YECPS	
7	F		WG (14:30-16:30) YECPS	WG (13:00-16:00) YEC
8	S			
9	S	-		
10	M			
11	T		G4 PL (10:05-11:15)	G4 PL (11:45-12:55)
			G3 PL (11:45-12:55)	WG (14:00-16:00) YECPS
12	W	KG PL (11:45-12:45)	WG (14:30-16:30) YECPS	G3 PL (11:45-12:55)
		Daw Myint Myint Than	Demonstration of Science	WG (14:00-16:00) YECPS
		KG PL (11:45-12:45)	Experiment	1
		Daw Aye Win Kyi		

Dec.13	Т	G1 PL (11:45-12:45)	WG (14:00-16:00) YECPS	G4 PL (11:45-12:20)
1		Daw Myat Myat Thein		G3 PL (12:20-12:55)
		G1 PL (11:45-12:45)		WG (14:00-16:00) YECPS
	ļ	Daw Tin Moe Wai		
14	F	G2 PL (11:45-12:45)	G3 PL (10:05-11:15)	G4 PL (11:45-12:20)
		Daw Win Win Aung	G4 PL (12:55-13:40)	G3 PL (12:20-12:55)
		G2 PL (11:45-12:45)	WG (14:30-16:30) DEPT	WG (14:00-16:00) YECPS
		Daw Thin Thin Aung		
15	s	WG (09:00-12:00) YEC		
16	S	, , , , , , , , , , , , , , , , , , , ,		
17	M	,	WG (14:30-16:30) DEPT	
18	T		110 (11:00 10:00)	G4 PL (11:45-12:20)
,0	١.			G3 PL (12:20-12:55)
	j.			WG (14:00-16:00) YECPS
19	w			G4 PL (11:45-12:20)
10	**			G3 PL (12:20-12:55)
				WG (14:00-16:00) YECPS
20	T		WG (14:30-16:30) DEPT	VVC (14.00 10.00) 1 E 01 0
20	'		VVG (14:50-10:50) DEI 1	
21	F		G3 PL (09:30-10:05)	
41	-		G4 PL (10:05-10:40)	
0 22		<u> </u>	G4 FL (10.05-10.40)	
Dec.22	S		BREAK	
	~		BREAK	
Jan. 6	S			<u> </u>
Jan. 7	М		,	
		<u> </u>		140 440 00 40 00 145 00 0
8	Т		·	WG (13:00-16:00) YECPS
9	W			
10	Т			
11	F			WG (13:00-16:00) YECPS
12	S			
13	S			
14	M		WG (14:30-16:30) YECPS	WG (13:00-16:00) YECPS
15	T		WG (14:30-16:30) YECPS	G3 PL (11:45-12:20)
	ŀ			G4 PL (12:20-12:55)
	l	· ·		WG (14:00-16:00) YECPS
16	W	WG (09:00-16:00) YEC	G3 PL (11:45-12:20)	G3 PL (11:45-12:20)
			WG (14:00-16:00) YECPS	G4 PL (12:20-12:55)
				WG (14:00-16:00) YECPS
17	T	G1 PL (11:45-12:45)	G4 PL (11:45-12:20)	G3 PL (11:45-12:20)
	1	Daw Kyu Kyu Aye	WG (14:00-16:00) YECPS	G4 PL (12:20-12:55)
		G2 PL (11:45-12:45)		WG (14:00-16:00) YECPS
	L	Daw Khin Myat Htwe		,
18	F	KG PL (11:45-12:45)	G3 PL (11:45-12:20)	G3 PL (11:45-12:20)
		Daw Min Min Oo	G4 PL (12:20-12:55)	G4 PL (12:20-12:55)
		KG PL (11:45-12:45)	WG (14:00-15:00) YECPS	WG (14:00-15:00) YECPS
		Daw Khin Saw Hlaing	, , ,	<u> </u>
		l	ा ild-Centered Workshops (1	1 5:00 46:00\ VECPS
	<u> </u>		iid-ceilteien Moikstiobs (1:	,.uv-16.00)/1ECF3
19	S			
20	S	V		
		Yangon ——	Mandalay	
21	М			
22	Т	Child-Cei	ntered Learning Workshop	in Mandalay
23	w			
	''	Mandalay	Taunggyi	
Jan. 24	Т			
25	F	Child-Ce	ntered Learning Workshop	in Taunggyi
	<u> </u>			

				-
26	S	Taunggyi —	Yangon	
27	S			
28	М		WG (14:30-16:30) YECPS	WG (13:00-16:00) YECPS
29	Т	KG PL (11:45-12:45) Daw Myo Sandar Mye	WG (14:30-16:30) YECPS	G3 PL (11:45-12:20) G4 PL (12:20-12:55)
		WG (14:00-17:00) YEC		WG (14:00-16:00) YECPS
30	W		G3 PL (11:45-12:20)	G3 PL (11:45-12:20)
			G4 PL (12:20-12:55)	G4 PL (12:20-12:55)
			WG (14:00-16:00) YECPS	WG (14:00-16:00) YECPS
31	T	, ,	G3 PL (11:45-12:20)	G3 PL (11:45-12:20)
			WG (14:00-16:00) YECPS	G4 PL (12:20-12:55)
				WG (14:00-16:00) YECPS
Feb. 1	F		G3 PL (09:30-11:15)	G3 PL (11:45-12:20)
			G4 PL (11:45-13:40)	G4 PL (12:20-12:55)
			WG (14:00-16:00) YECPS	WG (14:00-16:00) YECPS
2	S			
3	S			
4	M	Child-Ce	ntered Learning Workshop	in Yangon
5	T			- Tungon
6	W			
7	Т			WG (13:00-17:00) YEC
8	F		· ·	
9	S			
10	S			Small Workshop in
11	M			Pakkoku
12	T			
13	W			_
14	T			
15	F	· · · · · · · · · · · · · · · · · · ·		WG (13:00-16:00) YECPS
16	S			
17	S			
18	M		WG (14:00-16:30) YECPS	
19	T		WG (14:00-16:30) YECPS	Small Workshop In Mrauk-U
20	W			
21	T	WG (14:00-17:00) YEC		
22	F		WG (14:00-16:30) YECPS	WG (13:00-16:00) YECPS
23	S			
24	S			_
25	M	140 (44:00 47:00) 1/50	140 (44.00 40.00) (55.00)	<u> </u>
26	T	WG (14:00-17:00) YEC	WG (14:00-16:30) YECPS	_
27	W			WC (12:00 46:00) VEODO
28	T		WO (44:00 40:00) VEODO	WG (13:00-16:00) YECPS
Mar. 1	F		WG (14:00-16:30) YECPS	Cmall Markahan in
2	S	> Small Madahan ia		Small Workshop in Pakkoku
3	S	Small Workshop in Mawlamyine	WG (14:00-16:30) YEC	Fankoku
5	T	inawiainyine.	WG (14:00-16:30) YEC	WG (13:00-16:00) YECPS
6	W	 	WG (14:00-16:30) YEC	VVG (13.00-10.00) TECF3
7	T	IJ	VVG (14.00-10.30) TEC	
8	F		Science Experiment Workshop	
9	s		Trainerep	
10	S			
Mar. 11	М	Small Workshop in		WG (13:00-16:00) YECPS
12	T T	Kyaukpyu		() 22 12 2 7 1 2 7 1
· · · · · · · · · · · · · · · · · · ·	<u> </u>	<u></u>		

13	W	`	
14	T		Small Workshop in YEC
15	F	WG (14:00-16:30) YECPS	7
16	S		
17	S		
18	М		WG (13:00-16:00) YECPS
19	Т		
20	W		
21	T		
22	F		
23	S		
24	S		
25	М		WG (13:00-16:00) YECPS
26	T		

<Phase 3>

Date		General Studies	Basic Science	Social Studies
May 27	М	WG (14:00-17:00) YEC	WG (14:00-17:00) YEC	WG (14:00-17:00) YEC
28	T			
29	W	•	WG (9:30-17:00) YEC	WG (13:00-17:00) YECPS
30	T			
31	F	WG (13:00-17:00) YEC	WG (9:30-12:30) YEC	WG (13:00-17:00) YECPS
June 1	S			
2	S			·
3	М	WG (13:00-17:00) YEC	WG (14:00-16:30) YEC	WG (13:00-17:00) YECPS
4	T		WG (14:00-16:30) YEC	
5	W	WG (13:00-17:00) YEC	WG (14:00-16:30) YEC	WG (14:00-17:00) YECPS
6	T			
7	F	WG (13:00-17:00) YEC	WG (14:00-116:30) YEC	WG (14:00-17:00) YECPS
8	S	WG (10:00-16:00) YEC		
9	S			
10	M	WG (13:00-17:00) YEC	WG (14:00-16:30) YEC	WG (14:00-17:00) YECPS
11	T		WG (14:00-16:30) YEC	
12	W	WG (13:00-17:00) YEC	WG (14:00-16:30) YEC	WG (14:00-17:00) YECPS
13	Т		WG (9:00-16:30) YEC	G4 PL (9:00-9:35) YECPS
14	F	WG (13:00-17:00) YEC	WG (9:00-16:30) YEC	G3 PL (9:00-9:35) YECPS WG (14:00-17:00) YECPS
15	s	WG (9:00-16:00) YEC		14:00-17:00) (Edi 6
16	S	110 (0.00 10.00) 120		
17	М	WG (14:00-16:00) YEC		
18	T			
19	w			WG (14:00-17:00) YECPS
20	T			110 (11.00 11.00) 12010
21	F	WG (14:00-18:00) YEC	WG (14:00-18:00) YEC	WG (14:00-18:00) YEC
22	s	1 (7.0 (775 (11.00 10.00) 120
23	s			
24	м			
25	T	CCA Works	hops in Toungoo, Pathein, a	ınd Mawlamyine
26	w			<u> </u>
27	T		Feedback Meeting (15:30-17	7:30)
28	F	· · · · · · · · · · · · · · · · · · ·		
29	s			
30	S	<u> </u>		
July 1	М	CCA Wor	kshops in Pyay, Mandalay,	and Taunggyi
2	T	<i></i>		
3	W	CCA Workshop i	in Meikthila and Feedback N	Meeting (13:30-17:30)
4	Т			

		•	
5	F		
6	S		
7	S		
8	М	CCA Markshan in Manuay and Da	kolden
9	T	CCA Workshop in Magway and Pa	MORKU
10	W		
11	T		
12	F		
13	S		
14	S		
15	М	WG (14:00-15:00) YEC	
		Feedback Meeting (15:00-17:00)
16	Т	WG (14:00-16:30) YEC	
17	W	WG (14:00-16:30) YEC	WG (14:00-17:00) YECPS
18	Т	WG (14:00-16:30) YEC	
19	F		
20	S		
21	S		
22	М		WG (14:00-17:00) YECPS
23	T		
24	W		
25	Т	WG (14:00-16:30) YEC	
26	F	WG (9:00-16:30) YEC	
27	S	WG (10:00-16:30) YEC	WG (14:00-17:00) YECPS
28	S		
29	М		
30	T	Technical Transfer Seminar (CCA Worksh	on in Vangon)
31	W	Tacilitical Halistal Salilliai (CCA Molksii	op in rangon)
August 1	T		
2	F	WG (14:00-16:30) YEC	WG (14:00-16:00) YECPS
3	S		
4	S		

Pilot Lesson Schedule (Date/Time/Topics)

Date	·····	General Studies	Basic Science	Social Studies
Dec. 4	Tu		G3 (10:05-11:15) "Magnet" Daw Yee Yee Win G4 (11:45-12:55) "Earth, Moon and Sun"	
Dec. 11	Tu		Daw Laban Bauk G4 (10:05-11:15) "Earth, Moon and Sun" Daw Laban Bauk G3 (11:45-12:55) "Magnet" Daw Yee Yee Win	G4 (11:45-12:55) "Union Day (1 & 2)" Daw Cho Cho Win
Dec. 12	W	KG (11:45-12:45) "Size" Daw Myint Myint Than KG (11:45-12:45) "Poem" Daw Aye Win Kyi		G3 (11:45-12:55) "Clothes we wear (1 & 2)" Daw Than Than Aye
Dec. 13	Th	G1 (11:45-12:45) "Magnet" Daw Myat Myat Thein G1 (11:45-12:45) "Personal Hygiene" Daw Tin Moe Wai		G4 (11:45-12:20) "Union Day (3)" Daw Cho Cho Win G3 (12:20-12:55) "Clothes we wear (3)" Daw Than Than Aye
Dec. 14	F	G2 (11:45-12:45) "Discipline" Daw Win Win Aung G2 (11:45-12:45) "Teeth" Daw Thin Thin Aung	G3 (10:05-11:15) "Solution" Daw Yee Yee Win G4 (12:55-13:40) "Earth, Moon and Sun" Daw Laban Bauk	G4 (11:45-12:20) "Union Day (4)" Daw Cho Cho Win G3 (11:45-12:55) "Clothes we wear (4)" Daw Than Than Aye
Dec. 18	Tu			G4 (11:45-12:20) "Union Day (5)" Daw Cho Cho Win G3 (11:45-12:55) "Our Family (1)" Daw Than Than Aye
Dec. 19	W			G4 (11:45-12:20) "Our Country Myanmar (1)" Daw Cho Cho Win G3 (12:20-12:55) "Our Family (2)" Daw Than Than Aye
Dec. 21	F		G3 (09:30-10:05) "Sound" Daw Yee Yee Win G4 (10:05-10:40) "Living Things" Daw Laban Bauk	

Jan. 15	Tu			G3 (11:45-12:20)
1			-	"Our Family (3)"
1		·		Daw Than Than Aye
			1	G4 (12:20-12:55)
				"Our Country Myanmar (2)"
				Daw Cho Cho Win
Jan. 16	W		G3 (11:45-12:20)	G3 (11:45-12:20)
			"Solution"	"Our Village (1)"
	İ		Daw Ni Ni Aye	Daw Than Than Aye
			-5	G4 (12:20-12:55)
		•		"Our Country Myanmar (3)"
				Daw Cho Cho Win
Jan. 17	Th	G1 (11:45-12:45)	G4 (11:45-12:20)	G3 (11:45-12:20)
		"Size of Plants"	"Living Things"	"Our Village (2)"
		Daw Kyu Kyu Aye	Daw Laban Bauk	Daw Than Than Aye
		G2 (11:45-12:45)		G4 (12:20-12:55)
		"Air"	["Our Country Myanmar (4)"
		Daw Khin Myat Htwe		Daw Cho Cho Win
Jan. 18	F	KG (11:45-12:45)	G3 (11:45-12:20)	G3 (11:45-12:20)
J 44.1. 15		"Sound"	"Solution"	"Our Village (3)"
		Daw Min Min Oo	Daw Yee Yee Win	Daw Than Than Aye
ļ		KG (11:45-12:45)	G4 (12:20-12:55)	G4 (12:20-12:55)
		"Hot and Cold"	"Plants"	"Our Country Myanmar (5)"
		Daw Khin Saw Hlaing	Daw Khin Sandar Lwin	Daw Cho Cho Win
Jan. 29	Tu	KG (11:45-12:45)	Daw Hill Canadi Cwill	G3 (11:45-12:20)
Jun. 20		"Light and Dark"		"Surrounding Sceneries (1)"
		Daw Myo Sandar Aye	,	Daw Than Than Aye
l .		·		G4 (12:20-12:55)
				"Eight directions (1)"
				Daw Cho Cho Win
Jan. 30	w		G3 (10:05-11:15)	G3 (11:45-12:20)
Julia de	'`		"Animal Reproduction"	"Surrounding Sceneries (2)"
			Daw Wai Wai Qo	Daw Than Than Aye
			G4 (11:45-12:55)	G4 (12:20-12:55)
	,		"Soil Erosion"	"Eight directions (2)"
				Daw Cho Cho Win
Jan. 31	Th		Daw Kyi Kyi Hla G3 (11:45-12:20)	G3 (11:45-12:20)
Jan. Ol	'"		"Force"	1 .
				"Surrounding Sceneries (3)"
			Daw Khin Mya Sint	Daw Than Than Aye
			G4 (12:20-12:55)	G4 (12:20-12:55)
			"Force"	"Eight directions (3)"
Feb. 1		· · · · · · · · · · · · · · · · · · ·	Daw Hla Hla Wai	Daw Cho Cho Win
reb. T			G3 (09:30-11:15)	G3 (11:45-12:20)
			Not decided yet	"Surrounding Sceneries (4)"
			Daw Yee Yee Win	Daw Than Than Aye
			G4 (11:45-13:40)	G4 (12:20-12:55)
	,	,	Not decided yet	"Eight directions (4)"
			Daw Laban Bauk	Daw Cho Cho Win

Comment Sheet (for Teachers)

		Date:		Grade:	Subject:	
. Were	you satisfie	ed to conduct	the pilot les	son today?		
	1	2	3	4	5I	
	Not satis	fied	·	Ver	y satisfied	
Why?						*************************************
Didth	o etudonte	show their int	laranta duri	a the lease	-2	
Dig (ii	o students 1	2	. 3	4	5	
	Not satis	fied	· · · · · · · · · · · · · · · · · · ·	Ver	y satisfied	
					iccessful? Why?	
. Which		lesson do yo				
. Which	part of the	lesson do yo				
Which	part of the	lesson do yo				

Comment Sheet (for Students)

	Date:	Grade:	Subject::	
© Ø		I like this lesson, b	because	
		I cannot say that the because	this lesson is interesting or no	ot,
		I do not like this le	esson, because	

Comment Sheet (for Observers)

	D	ate:	Grade:	Sι	ıbject:	
Was the	lesson cond	ducted smo	othly?			
	1	2	3	4 1	5	
	Poor			· "	Good	
Was the	teacher's ex	cplanation o	clear?			
	1	2	3	4	5	
	Poor				Good	
Was the	teacher con	nmunicatin	g with childre	n through Q	and A?	
	1	2	3 .	4	5	
	Poor				Good	
Were th	e teaching/le	arning mat	erials effectiv	ely used in 1	the lesson?	
	1	2	3	4	5	
	Poor		·		Good	
Did the	students sho	w their into	erests during	the lesson?		
	1	2	3	4	5	
	Poor				Good	
Did you	think the les	son was su	accessfully co	onducted?		
YES	NO			٠		
Nhy do yo	ou think so?					
	***************************************	*******************************	[Diseases]		<u> </u>	
				·>>·		
What is th	e most succ	essful part	in the lesson	?		
	10001010010 555555555555555555555555555	***********************	···			,

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			,.,,.,			
What is t	he least suc	cessful par	t in the lessor	1?		

-See back page-

7.	Did the teache	er pay attention to safety	during the experime	ents?	
	YES	NO			
8.	Comments / S	Suggestions			
	***************************************			***************************************	

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