

**Effective Classroom Teaching/Learning
Phase II: Transfer of Training Skills in the
Classroom Delivery**



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Research Centre for Educational Innovation and Development
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Research Team

Ganesh Bahadur Singh	<i>Researcher</i>
Ashok Kumar Pokharel	<i>Associate Researcher</i>
Om Prakash Singh	<i>Research Assistant</i>
Ganesh Silawal	<i>Research Assistant</i>
Bishwobala Thapa	<i>Research Assistant</i>

Formative Research Project, CERID

Coordinator: Dr. Bijaya Kumar Thapa Project Advisor : Dr. Hridaya Ratna Bajracharya
Associate Researcher: Mr. Rom Prasad Bhattarai

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Teacher training is one of the major inputs of BPEP. Training and Supervision Section of DOE, DEC and NCED are the institutions made responsible for training the teachers within MOES. Training to the trainers and training to the teachers are the major activities in the training process. The focus of the training is to prepare teachers for effective classroom delivery.

It is important that skills learnt in the training need to be used in the classroom delivery. Various research studies reported that transfer of training skills has not been up to the mark. In this context this study examined the factors that contribute to the transfer of training skills. To this end training of trainers, training to the teachers and classroom delivery were observed and analyzed. This report of the study contains a description of the processes involved and conclusions drawn from the over all findings in this connection.

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Ganesh Bahadur Singh
Researcher

LIST OF ABBREVIATIONS

BPEP	Basic and Primary Education Program/Project
BS	Bikram Samvat
CAS	Continuous Assessment System
CERID	Research Centre for Educational Innovation and Development
CSA	Concrete, Semi-concrete, Abstract
DEC	Distance Education Centre
DEO	District Education Office
DOE	Department of Education
DTOT	District Training of Trainer
FGD(s)	Focus Group Discussion(s)
FRAG	Formative Research Advisory Group
FRP	Formative Research Project
MOE	Ministry of Education
MOES	Ministry of Education and Sports
MTOT	Master Training of Trainer
NCED	National Centre for Educational Development
NELTA	Nepal English Language Teachers' Association
PEDP	Primary Education Development Project
PTTC	Primary Teacher Training Centre
Q/A	Question Answer
RC	Resource Centre
SEDU	Secondary Education Development Unit
SLC	School Leaving Certificate
SMC	School Management Committee
TB	Textbook
TG(s)	Teacher's Guide(s)
TOT	Training of Trainer
WSA	Whole School Approach

TABLE OF CONTENTS

Title	Page
ACKNOWLEDGEMENT	iii
LIST OF ABBREVIATIONS	iv
EXECUTIVE SUMMARY	vi
Background -----	vi
Major Findings -----	vi
Suggestions -----	viii
CHAPTER I	1
INTRODUCTION	1
Background of the Study -----	1
Objectives of the Study -----	2
Study Methods and Approaches -----	2
CHAPTER II	4
TRAINING OF TRAINERS	4
Master Training of Trainers -----	4
District Training of Trainers -----	10
MTOT versus DTOT versus RC-level Training -----	12
TOT for In-service and Pre-service Teachers' Training -----	14
CHAPTER III	16
TRAINING TO THE TEACHERS	16
Recurrent and In-service Teacher Training -----	16
CHAPTER IV	20
FACTORS CONTRIBUTING TO TRANSFER OF THE TRAINING SKILLS IN THE CLASSROOM DELIVERY	20
Reasons for Non-transfer of Training Skills -----	20
Contributory Factors in the Transfer of Training Skills -----	24
CHAPTER V	26
DISCUSSIONS AND IMPLICATIONS	26
Measures to Maximize Transfer of Training Skill -----	26
Issues in the Training -----	30
Some Options -----	32
Further Research Studies -----	32
CHAPTER VI	35
SUGGESTIONS	35
Maintain Quality of the Training Delivery -----	35
Provide Focused Training -----	36
Emphasis Implementation and Consolidation -----	36
Monitor the Utilization -----	36
REFERENCES	37
APPENDIX	39

EXECUTIVE SUMMARY

Background

This study focused on the delivery of the training module both to the trainers and teachers, and on classroom delivery by the teachers in order to examine those aspects that affect transfer of training skills in the classrooms. Altogether 20 schools (18 public and 2 private schools) from 6 districts (Jhapa, Morang, Rasuwa, Chitwan, Kaski, and Dadeldhura) were taken in for the study. The data/information that was collected was then qualitatively analyzed.

Major Findings

Findings related to the delivery of the training and factors that contribute to the transfer of training skills in the classroom delivery are presented in the following sections.

Delivery of the Training

Trainers' quality, availability of the materials, and activities during training (such as coverage, demonstration and practice, modeling), training delivery skills in TOT were found as mentioned below to be the major factors that affect delivery of training:

Trainers' Quality

Majority of trainers (67% and 83% of MTOT trainers respectively in English language and mathematics, and over 50% of DTOT and RC level) followed training manual, demonstrated and discussed with the participants, provided them useful feedback, used instructional materials, and linked skills with TB and TG during TOT. Whereas some of the trainers lacked planning, or were unable to control unnecessary discussion, or spent more time on lecturing than making the training activity based as intended in the manual. One of the trainers in MTOT even let the participants run the session on their own and thus that day's content was left out. This indicated different levels of performance of the trainers.

Availability of the Materials

One or another type of required materials was often not available in the observed training. Training manuals were provided on the first day or during the training period, but the textbook and the teacher's guide were not provided to all the participants. Due to the lack of textbook and the teacher's guide, the first session of the first day of English language was postponed for the next day in one of the DTOT. In one of the pre-service TOT participants were given a lecture on CAS and when participants showed interest in seeing the materials used in CAS, they were not made available.

Activities During Training

If activities are carried out properly and consistently, it will give support to the better transfer of training skills. The following aspects were found influencing in the delivery of the training,

Coverage of the contents, demonstration and practice. Those contents that were discussed, demonstrated, and practiced were transferred better. Only a few activities were discussed, demonstrated and practiced thoroughly. Most of the contents were covered through these strategies -- some were explained only, some were covered through the participants' presentation (without prior demonstration), and some were covered through trainer's demonstration (no practice by the participants). In some of the cases activities/content were skipped. For many activities to be skipped limited time was given as the major reason. Time constraint also occurred due to poor management of time. Trainers of 10 months package expressed the view that though they covered the course, discussion, demonstration and practice could not be undertaken for all the skills/activities. They, on the basis of prioritization held discussion, demonstration and practice in the case of some of the skills/activities.

Proper and consistent practice. There were cases of proper and consistent practice such as use of storyboard throughout MTOT, DTOT and RC level which were carried on as intended in the manual. Whereas there were cases of activities which gave wrong messages or created confusion such as "let us suppose this is a flashcard" (can training or classroom be delivered without the suggested material?), "drawing picture of a weighing machine to solve the problem" (should concrete stage be left out and no real objects are required?), "lecturing use of CAS, but no CAS material" (lecturing can replace materials?).

Modeling. Training gives the opportunity to demonstrate what a classroom should look like and how classroom teaching learning should be. Demonstration of the role playing and using students in the role playing and a few such activities was made during training. However, modeling the display, use of real objects was not done as required in a number of cases.

Training Delivery Skills in TOT

Trainers were found using a number of training delivery skills such as displaying objectives of the training on the wall, collecting and pasting of the expectations of the participants from the training, warm up/ice breaker activities, following the manual in most of the cases. Only some of the trainers (less than 40%) explicitly indicated that these skills are useful for the delivery of the training and they explained how to use these skills. Such useful training delivery skills were not included in the training package itself. NCED has developed 10 days TOT guidelines (Poush, 2059 BS) in which the first two days are for providing training delivery skills (communicating objectives/expectations, house rule, participatory approach, adult learning, classroom management, and feedback techniques). In the revision work of this TOT guidelines, some more training delivery skills need to be incorporated such as warm up/ice breaker exercise, getting participants' attention back, time management (with the provision of wall clock in the training hall), involving non-participating participants, managing/controlling unnecessary discussion, modeling the training, etc. Feedback from the field needs also to be analyzed and reflected in the revision work of TOT guidelines.

Factors that Contribute to the Transfer of Training Skills

During classroom observation, only a few of the training skills were found to have been used in the classroom delivery. On the basis of teachers' responses and observed cases, further research questions were developed to identify reasons for

non-transfer of training skills in the classroom. Firstly these research questions were shared with FRAG and then with DOE, NCED, CDC, DEC, and experts in separate consultative meetings. Workshops were conducted for discussion and verification of the research question to identify the aspects that affect transfer of training skills in the classroom delivery. These aspects are:

- Teacher needs to be convinced and confidence built in him/her about the usefulness of the suggested techniques/methods.
- Sufficient opportunities to discuss, demonstrate and practice.
- Proper and consistent practice of each skill during training.
- Up-to-date curricular materials -- identify and adopt better examples and rectify the shortcomings.
- Motivation of the teachers to be heightened.

Suggestions

Major suggestions provided by this study are related to enhancing the quality of the training, providing focused training, and taking measures to maximize transfer of training skills in the classroom.

- Provide training to the trainers covering training delivery skills as well.
- Adopt evaluation procedures (session evaluation, training evaluation and pre-post test).
- Provide required materials as part of a training package.
- Provide focused training covering basic, essential skills; give emphasis to discussion, demonstration and practice; use training for modeling.
- Emphasize implementation that is planned and provide time for the consolidation of efforts.
- Monitor the practical use made of the training skills.

CHAPTER I INTRODUCTION

Background of the Study

Teacher training is considered as one of the most crucial components in ensuring effective classroom teaching learning, but the impact of teacher training has not so far been found to be up to the desired level in classroom practices in Nepal. Until the end of BPEP I, teacher training had been, "a one-way traffic of unknown emphases and unseen practices" (MOE, 1999). BPEP II master plan (1997-2002) raises concerns over the gap between the content and the intent of the teacher-training curriculum, and the teacher training endeavors for producing under-trained teachers at large (1997a, p. 344-345). No significant differences between the classroom delivery practices of the trained and untrained teachers as well as in the achievement of students taught by these two groups of teachers have been pointed out by the studies in Nepal (NCED 1996, 1998). Such results raise several questions -- are there weaknesses in the training or training delivery itself which are responsible for poor transfer of training skills in the classroom delivery; or is it teachers who are not using the skills learned due to several reasons such as personal (attitude, motivation, accountability), environmental (lack of facilities in the school/classroom); or are there other factors responsible for poor transfer of training skills in the classroom delivery.

CERID launched an action research on 'Instructional Improvement in Primary Schools', a four-year project, in 1982. The major inputs of the project were designed to facilitate a gradual transition from the traditional teacher-centered approach to an activity-based instruction (1989, p. 9). This called upon the teachers to change their previous teaching habits and to imbibe new habits. In this situation of unlearning, learning and relearning requirement teachers' acceptance of and a positive attitude towards the desired changes were regarded as crucial (p. 40). This action research was a success story -- the achievement levels of the project school students were encouraging and the internal functioning of the instructional system of these schools was enhanced over the project period. Such a project-based success story has yet to be translated into a national level program. Similarly results such as trained teachers not being inclined to use appropriate teaching skills in the classroom need to be properly addressed (PEDP, 1993, p. 32).

Studies on the impact of training have pointed out shortcomings related to various aspects such as trainers not being able to become role models for teachers; lack of conducive classroom environment due to large class size and poor facilities (NCED, July 2000a, pp. 32-33); teachers not being competent enough to use student-centered methods properly (NCED, July 2002a, p. 6; NCED, July 2000b, p. 15); shortcomings in the training packages such as lack of activity base (NCED, 2002b, p. 6). These aspects are to be appropriately addressed to ensure effective transfer of training skills.

Transfer of training skills in the classroom delivery is the hallmark for a teacher training activity to have any impact. This study therefore which focuses on "transfer of training skills in the classroom delivery" is intended to complement the first phase of the study in which availability and use of the curricular materials (curriculum, content elaboration, textbook and teacher's guide) was broadly studied. One of the major findings of the first phase of this study was that the textbook, as the curricular material was largely used by most of the teachers for classroom delivery. Whereas in 10% (15 out of 153) classes teachers used the teacher's guide, the textbook and other related materials for classroom delivery. In these classes, there was a balanced

coverage of content, more interactions between students and teachers, and an opportunity for students' individual practices. The first phase study also pointed out poor availability of curricular materials in the schools. Inadequate coverage of higher level/habit formation type of curriculum objectives in the classroom was also indicated as drawbacks. (CERID, 2002a).

Objectives of the Study

In general, this study focused on the delivery part of the training and transfer of the training skill in the classroom delivery, which were prioritized for this phase from several pertinent key questions. Specific objectives of this study were:

- To assess training of trainers with respect to modality, availability of required facilities, and delivery of the training.
- To assess training of the teachers with respect to delivery of training, addressing of local context, and preparation of the teachers for classroom instruction.
- To examine those aspects that affect transfer of training skills in the classroom delivery.

Study Methods and Approaches

This study was primarily based on the training observation, classroom observation, and sharing/interaction with the stakeholders, and the experts and personnel of DOE, NCED, DEC and other related sections/departments of MOES. In this study following activities were undertaken:

Data/Information Collection

Required data and information were collected at different levels and from different sources. Sharing of the preliminary findings and verification of the findings were also done where necessary. Following activities were undertaken to collect data/information:

Familiarization on Principles and Process of Teacher Training

One-day familiarization workshop with concerned personnel of DOE, NCED, DEC and other section/departments of MOES was conducted in order to familiarize the research team with the principles and processes of teacher training. This was helpful to develop study instruments, to devise the processes for the study, and to identify information requirements.

Focused Analysis of the Data/Finding of the First Phase of the Study

The data/findings of the first phase of the study related to classroom delivery were analyzed with aims to get insights into the transfer of the training in the classroom delivery. This analysis helped indicate various aspects to be focused while observing training delivery. This focused analysis of the first phase data (classroom observation) was undertaken with respect to the classroom delivery skills as mentioned in the primary teacher training manuals.

Preparation of a List of Skills as Focused in the Primary Teacher Training

Training modules (of certain subjects) of the NCED, DEC, and DOE were studied and analyzed to prepare a list of classroom delivery skills as focused in these

training manuals. Most of this part of work was undertaken in the first phase of this study (CERID, July 2002a). (See Appendix 1 for teaching skills covered in the English language and mathematics recurrent training.)

Training Delivery Observation at the Centre

Delivery of the training was observed to find out the content, pedagogy, relevance to the classroom situation/delivery, and transfer of the classroom delivery skills as focused in the Training of Trainers (TOT) at the Centre.

Observation of the Trainers' Training Delivery at the District/PTTC/RC

Delivery of the training was observed to find out the content, pedagogy, relevance to the classroom situation/delivery, and transfer of the classroom delivery skills at the district, PTTC and RC levels.

Classroom Observation

Teaching learning activities in the classroom were observed to examine the methods and materials used for instruction. These methods and materials used were compared with the methods and materials as covered in the training manual by way of examining and analyzing transfer of training skills in the classroom delivery. For the classroom observation only those teachers who had participated in any of the recurrent or 10 month packages were included.

Interaction with Administrators, Trainers and Trainees

Interactions with the trainers, teachers, head teachers, parents, DEO, RP/SS were organized. Focus Group Discussions and/or Interviews were conducted to find out the perception of the stakeholders on training delivery, transfer of training skills in the classroom situation, and classroom practices of teachers. Interaction sessions were organized during the initial phase of data collection as well as for the sharing and verification of the preliminary findings.

Sharing Sessions with DOE and Related Institutions

Field findings were shared with concerned institutions such as NELTA, departments of DOE including NCED and CDC. Their comments and suggestions were also treated as data for the study.

Sampling

The focus of this study was mainly restricted to the sample districts of the first phase -- Rasuwa, Kaski and Morang districts. However some more districts were also taken in for this study. The additions included Jhapa district to observe the classes of English language teachers as they were provided with English language recurrent teacher training; Mahottari district to observe DTOT for English and Mathematics; Janakpur district to observe PTTC level training; and Dadeldhura district which was missed out in the first phase for security reasons. The fifth district included in the study was Chitwan in order to have a common district for research studies of the second phase of FRP. Eighteen public schools and two private schools were in total included in the sample (see Appendix 2 for list of the schools) and altogether 75 classes were observed in this phase of the study. Training observed is given in the following table:

Table 1.1: Training observed by type and district

Training	District (No. of training)
MTOT English	Kathmandu (1)
MTOT Mathematics	Kathmandu (1)
DTOT English	Morang (1), Mahottari (1)
DTOT Mathematics	Morang (1)
TOT for In-service Teacher Training	Dhanusha (1)
TOT for Pre-service Teacher Training	Dhanusha (1)
RC level - English	Morang (4)
RC level - Mathematics	Morang (1)
Modular	Morang (1)
1st package	Morang (1), Kaski (1)
4th package	Dhanusha (1), Mahottari (1)

Analysis Procedure

Data/information collection and analysis was carried out in multiple stages. First the classroom teaching/learning process was observed and the use of training skills as used in the classroom delivery was analyzed. Interaction with teachers, trainers and DEO personnel was focused to find out the reasons for use or non-use of the training skills in the classroom delivery. Preliminary findings based on the first round of field visit were shared with FRAG, experts and concerned institutions (DOE, CDC, NCED, DEC). Based on the feedback and comments from the sharing session, further research questions were developed identifying the factors that contribute to the transfer of training skills in the classroom. Workshops were organized in Kaski and Morang districts to share, verify and add cases to the preliminary findings. Conclusions/implications were drawn only after verification with the field level stakeholders (teachers, trainers, DEO personnel), experts (subject specialists, manual writers, educationists), concerned institutions (DOE, CDC, NCED, DEC, NELTA).

The major focus of this study is to identify those aspects that contribute to the better transfer of training skills in the classroom delivery. Master Training of Trainers (MTOT), District Training of Trainers (DTOT), RC level training and package training of NCED were observed and analyzed as samples to draw relevant cases related to transfer of training skills. Training programmes organized at the time of fieldwork were covered in this study. It was not the intention of the study to assess a particular training module or a training manual or to make comparisons. The training delivery was observed to find out how the training delivery system influences the transfer of training skills in the classroom.

CHAPTER II TRAINING OF TRAINERS

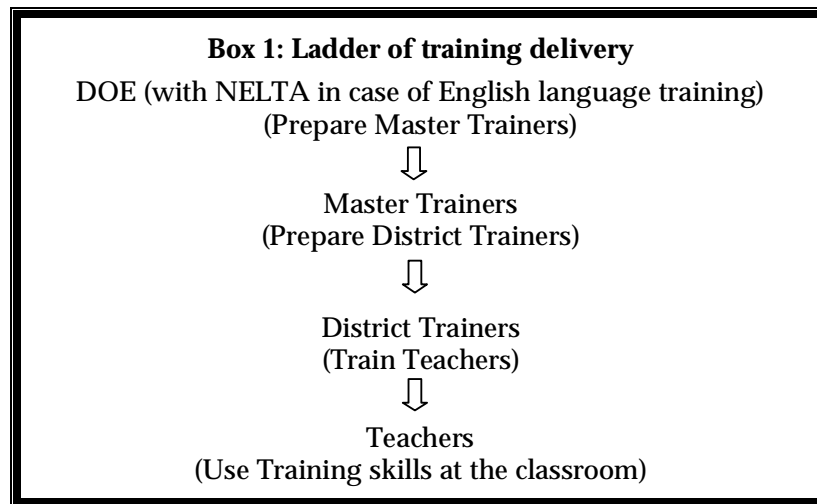
Training programmes of NCED and DOE in general involves master trainers to train trainers and trainers to train teachers. In this chapter training of trainers at different levels is described.

Master Training of Trainers

Training and Supervision Section of the DOE, MOES delivered MTOT for two subjects -- English language and Mathematics in the fiscal year 2002/03. MTOT for the English language subject was delivered from November 19-29, 2002 and MTOT

for Mathematics subject from November 26-December 6, 2002. Both of these training programs were delivered in the Kathmandu Valley.

Recurrent training is delivered in a cascade modality by DOE. Master trainers are prepared at the centre. These master trainers deliver training for the trainers at the district level. These district level trainers in turn give training to the primary level teachers. District trainers are also involved in delivering training for the teachers. Thus, classroom delivery skills reach the classroom through various tiers connected with the training as shown in the following box:



Outcome of the Observation

Centre level master trainers' training for English language and Mathematics was observed. Findings of the centre level master trainers' training are presented in the following paragraphs.

Provision of the Training Manual

In the case of the English language subject, the training manual was already in its final form and in the case of Mathematics training manual was being pre-tested during the MTOT. Both of these manuals provided descriptions and activities related to teaching methods, instructional materials, and classroom interaction. Moreover, the manual for the English language was comprehensive with stage-wise division for activities, linkage and reference to the textbook and teacher's guide. The manual for Mathematics was already in its final form and provided to the participants before the completion of the MTOT.

Availability of Training Materials

In the case of English language MTOT, the training manual was provided to all the participants, but the textbook and the teacher's guide were provided to each group only. In the case of Mathematics MTOT, the training manual had yet to be completed and provided to the participants -- it was in the process of development. One of the major concerns raised by the participants was that they were not provided with a complete set of required materials. "Lady Bird" book has been referred several times in the English language training manual which was not provided to the trainees. But they were provided with photocopies of some portions of that book. Trainees opined that it would have been much better if they had been

provided with a complete set of the required materials at the time of registration for the training. This would have allowed them time to be prepared in advance with related questions during the training sessions.

Trainers' Quality

In English language MTOT 4 sessions out of 6 (67%) and 5 sessions out of 6 in Mathematics MTOT (87%) were found delivering the training in the following manner,

- Followed the manual to deliver the training sessions.
- Demonstrated the action, illustrations, activities as suggested in the manual as well as some developed by themselves.
- Tried to make the interaction with the participants lively and also tried to involve more of the participants in the interaction.
- Undertook most of the activities as suggested in the manual.
- Provided adequate reinforcement to the queries and answers of the participants during the training session.
- Used instructional materials during the training period.
- Adequately linked training skills with the textbook/teacher's guide.

Participants of English language MTOT also pointed out that these trainers were inspiring them,

- To be active, more resourceful and to have up-to-date skills like learning by doing.
- To prepare materials and think over the methods and techniques which help the children to develop their listening, speaking, reading, and writing skills.
- To change the outmoded language teaching approach, methods and techniques and to adopt the participatory and functional/communicative approach.
- To innovate and search for new things and procedures to run a training effectively.

The participants also agreed that the training has provided them with new ideas applicable in classroom teaching/training delivery like planning, preparing, practice, presenting, use of materials, games, jokes, brain storming, problem solving chants, role play, discussion, interaction, going from simple to complex, teaching English through communicative methods rather than rules.

Similarly participants of the Mathematics subject pointed out the strength of the training for the following reasons:

- Training delivery through the use of effective skills like use of materials, group division, group discussion, group work, meaningful examples, etc.
- Emphasis on joyful teaching/learning process.
- Activities were in accordance with the objective of the schedule.
- New techniques were introduced to provide the concept of the content.
- Participatory group work in materials development.
- Time was allotted for sharing.
- Friendly and cooperative behaviour of the facilitator.

- Active involvement of the participants.
- Timely delivery of the training.
- Concept of the content was provided through activities.

Although most of the facilitators were found to be effective in their training delivery, some of the facilitators were not equally effective. The reasons for their less effectiveness were,

Lack of planning. They were not well prepared. There was lack of pre-planning. They were found reading the manual during the session for the first time and carrying out the suggestions made in the manual. In such a case sometimes even the facilitator was found to get confused on activities suggested in the manual. Trainees also expressed such shortcomings related to the facilitators:

- Presentation of some facilitators was not relevant or clear.
- Some sessions were not delivered by subject experts.
- Instruction and direction of some trainers were not clear.
- Some part of the contents of the curriculum was not included.
- Lack of adequate and proper type of materials.
- Some facilitator did not provide concrete concepts and solutions after group work and discussion.
- Some trainers were not competent. They were merely speakers not trainers. They lacked planning, preparation and training delivery skills hence they could not present activities according to the package. Some trainers were just paraphrasing and they were not clear about the subject matter.

The participants ran the session. In one of the English language MTOT, two of the participants were invited to run the session. This would have been a sharing and practice session involving the trainees if the participants had been provided reasonable time and related topic. As there was no more time the session's topic was not fully covered and some portions were left out.

Lack of guidance in running the session. In one of the Mathematics MTOT sessions discussion lingered on for more than 40 minutes. There was some confusion on how the topic on the question (fraction of 10th and 100th) needs to be dealt with in the classroom. This confusion arose, as the objective of the session was not set clearly beforehand and objective given in the curriculum/textbook was also not specified.

Lecturing replaces activities. The manual required use of flashcards, but one of the facilitators in the English language MTOT instead of demonstrating real materials used "let us suppose strategy" (let us suppose we have a flashcard). It might be taking the thing a bit far, but if such a fake activity is passed down through the cascade, teachers might not be using the real materials in the classroom at all.

From the above cases and descriptions, it can be concluded that the effectiveness of the trainers varies in their delivery of training. As training is a long term continuous endeavour of DOE, DEC and NCED, it will be helpful to assess the competency of the trainers for effectiveness. This will be helpful in selecting the best trainers for future training programmes as well as in advising the trainers how they can improve their training delivery in future.

Training Participants

Most of the participants actively participated in the interaction, discussion and in their presentation in both of the MTOTs. They were eager to learn new skills. Also appropriate situations were created and demonstrated while introducing a new concept.

In the English language MTOT, although the participants were generally weak in their spoken English this did not hold them back from making their presentations. Most participants were not hesitant to make presentations and share their understanding with trainers and with fellow participants. Enthusiasm was there, what was galling was their lack of fluency in speaking. In the case of Mathematics MTOT participants were competent in their subject matter.

The most glaring problem among the participants of the English language MTOT was mediocrity in their command of the English language. Only a few could speak good English or deliver the class appropriately. Two of the participants were found not participating in the training. They were more like silent listeners. With regard to the qualification 93% (40 out of 43) participants in MTOT were from education background (B. Ed. or M. Ed.). The major subject in their academic qualification was English in the case of all the participants joining the English language MTOT and in the case of Mathematics MTOT all but 1 (with Science as major) of the participants had Mathematics as the major subject (see Appendix 3 for details). Two of the facilitators of the English language MTOT were not satisfied with the competency level of the participants and doubtful about their capability to deliver DTOT as they were weak in the English language -- written as well as spoken. The training manual emphasizes use of flashcards, match-stick figures and sketch drawing. Each one of the MTOT participants was not competent enough in these skills.

The participants in the MTOT are the prospective master trainers who have to train trainers at the district level. Their competency level will affect the quality of training at the district level. Therefore it will be useful to evaluate the participants to find out if they have satisfactorily learned what was intended in the training and whether they were able to do their job well.

Use of Instructional Materials

Most of the facilitators were found to have prepared instructional materials and used them effectively during the training session. This provided an opportunity to the participants to understand how to use various instructional materials in the classroom delivery. Both the commercial (base ten block) and self made (charts, flashcards) were used. This made for effective demonstration and gave an opportunity to have some useful practice.

Provision for Practice

There was a provision made for practical in both of the training programmes during the training sessions including a specific session for practice teaching at the selected schools.

Display in the Training Hall

Training manuals related to the primary teacher training emphasize display in the classroom -- have the class supplied with reading materials and works of the children. Demonstration of this good practice needs to take place from the MTOT, centre level training. Display on the walls of the training hall was however

negligible in the English language MTOT and there were only a few displays in Mathematics MTOT. It is noteworthy that two of the studies delivered by NCED in July 2000, namely "Training of Teachers: Factors contributing to the effectiveness of training in classroom practice", and "Teacher Training Follow-up" indicated that the trainers' performance was not up to the mark in the display of materials in the classroom (p.32 of the first report) and while following up the teachers after the training basic and creative educational materials were found lacking in the classrooms (p. 7 of the second report). Demonstration should be used as a tool to give practice and as the means of ensuring the training focus from classroom display as well.

Training Hall

The training hall was crowded in the English language MTOT. The seating arrangement was made with 3 rows of benches (2 seaters) and desks. There was lack of adequate space for 30 participants to move around as well as lack of free space in the front for demonstration purpose. One advantage in delivering training in such a crowded/congested room is that this provides a usual type of classroom setting. Activities, which seem difficult to demonstrate in a crowded class, can be discussed and their alternatives tried out. But this part of teaching was lacking in the training. The structure as well as the congested space of the training room sometimes created problems for the participants to come to the front side for presentation.

Training Delivery Skill

MTOT is supposed to prepare facilitators to train district level facilitators. These facilitators need not only to be competent in the content matter, but also efficient in delivering training. MTOT was more content focused and usually it lacked worthwhile reference to the training delivery skill.

Sharing of the Outcome of the Observation

Preliminary findings of the English language MTOT observation was shared with the NELTA, DOE, NCED and the participants. Similarly findings of Mathematics MTOT was shared with DOE, trainers, subject experts and participants. The interaction brought forth various implications of the findings:

Selecting Facilitators

Effectiveness of the training largely depends upon the individual facilitators. Their effectiveness needs to be assessed, which can be a helpful feedback to decide whom to continue or discontinue and whom to suggest to make improvement.

Similarly prospective DTOT facilitators also need to be competent and their competency needs to be evaluated. It is essential to reconsider alternatives if the MTOT participants do not prove to be capable prospective facilitators.

Appropriate Modeling

The training occasion needs to be an ideal example for appropriate training/classroom delivery. Presently TOT is emphasizing classroom delivery, but as the participants of MTOT and DTOT are to be involved in delivering training down the ladder they require training delivery skill as well.

Focusing Needs of the Participants

Recurrent training of a short duration needs to focus on immediate requirements and useful skills which might not be the same for all the participants. Knowing where the participant stands and what his/her requirements are can be helpful to address the needs of the participants in the training.

District Training of Trainers

TOT at the district level was observed for the recurrent teacher training, in-service and pre-service primary teacher training. DTOT for the English language subject was observed in Morang and Mahottari, and that of Mathematics in Morang. Participants of MTOT delivered TOT at the district level. Each of the DTOT was observed for 8 days and the perceptions of the facilitators and participants collected in order to crosscheck the observation and collect essential data/information. TOT organized for the facilitators of 10 month package course was observed in Dhanusha.

Outcome of the Observation

Similar themes and processes as used for the MTOT were used for the observation of DTOT. The findings of the observation are presented in the following paragraphs:

Training Facilitators

Content knowledge, training delivery skill, preparation for the training delivery of the facilitators differed. In one of the English language DTOT, one of the facilitator who was found to be better prepared used games, activities, flashcards, pictures whereas another facilitator mostly relied upon the manual. Relying solely upon the manual without preparation sometimes created confusion and diversion from the main theme of the session. For example, the manual suggested a guessing game using opposite words (fat/thin, big/small, long/short, etc.). It was required to show picture flashcards of a fat cat and a thin cat first, then take one of the flashcards behind and ask students to guess if the cat is fat or thin? When the facilitator drew the pictures of the cats on the blackboard and tried to play this guessing game, there was confusion. The only possible question in such a context was which cat is fat, which cat is thin. Due to such confusion and distortion, the facilitators had to give up and skip the activity.

It was also observed that in one of the DTOTs out of the two MTOT participants in Mathematics, only one delivered most of the sessions in DTOT. This was also the case in one of the English language DTOTs. This observation of DTOTs also reinforces the need to evaluate trainers.

Training Participants

The levels of content knowledge as demonstrated during discussion and practice sessions, grasp of the content and skills covered in the training, preparation for the practice sessions differed among the participants. Another aspect observed was the regularity of the participants. There were 16 participants in total in one of the DTOTs. But one or two participants were found to be absent each day. Regular attendance taking was not practiced in that training. Coming late was also common among the participants -- one or two were coming one or two hours late in that training. These prospective trainers need to be evaluated for their effectiveness in order to enhance quality of the training.

Availability of the Training Materials

In the observed DTOTs, only some of the participants had TG or TB which is frequently referred to in the training manual. There were only two TGs of the English language in Mahottari. In Morang there were 4/5 textbooks and an even less number of TGs in both of the DTOTs. As there was no TG and TB on the first day of the training, the training of the English language could not be delivered after the opening session in one of the DTOTs. It had to be closed for the day. Materials which were referred to in the manual, such as flask, transparency sheet, base ten block etc. in Mathematics and "Lady Bird" book in the English language teaching, were not available during the DTOT. Papers for flashcards, knife, copy, dot pen, and teachers' manual of Mathematics and the English language were provided to the participants.

Schedules for Training

Training schedules were prepared and distributed in the training, but they were not strictly followed. The English language teacher training manual has provided tentative time duration for each of the activities, but the time duration was not followed in a number of cases (in 7 out of 9 activities while this item was specifically observed) and the sequence of the presentation was also not followed in some cases (in 5 out of 9 activities while this item was specifically observed). On some of the occasions discussions went on from half an hour to one hour which affected the coverage of other items/activities. For example the concept of "Ghaat (index)" and solution of " $X - 4 = 5$ " in mathematics. These discussions either ended in accepting whatever is given in the manual or is left unsolved. In one of the DTOTs of the English language, one of the trainers skipped some of the sections of the manual and another again started the same portion later. This indicated lack of coordination between the trainers. Following the schedule as planned would have ensured better flow of the training sessions.

Coverage of the Contents of the Training Manual

The English language teacher training manual allows to skip and do fewer activities if the teachers have difficulty, but it emphasizes giving plenty of practice. In 90% of the case, discussion parts were skipped. These discussion parts are important ones for linking learned skills in the classroom delivery. There was neither any specific rule nor reason for skipping certain contents/activities in the manual. In Mathematics skipping of the contents/activities was done when the participants said that they can take care of the activities given in the manual or the given problem could not be solved such as solving " $X - 4 = 5$ " by using a balance.

Provision for Practice

In both the English language and mathematics teacher training, practice sessions were organized. The participants found practice session to be helpful in further clarifying contents/activities.

Feedback Mechanism

Timely correction and feedback was lacking in a few cases. For example, the participant was required to demonstrate how to teach the meaning of words by using flashcard. The participant showing the flashcard of 'BALL' spelled it as 'b-a-l-l'. The trainer did not correct the mistake.

Training Hall

The training hall was used in whatever setting it was available. It was in the form of a column and row type setting where the training was delivered in the school classroom and round table type in the SEDU/PTTC. In one of the DTOTs group formation arrangement was used. Otherwise the facilitators rarely tried arranging the seat plan according to their training delivery needs. There were some charts, posters, quotations on the walls of SEDU/PTTC already existing. Otherwise nothing was displayed on the walls of training hall that belonged to the DTOT endeavour.

Communication

In a few cases communication gap was found both from the centre to the district and from the district to the facilitators and participants. For example participants of the Mathematics subject MTOT of Morang came to know that they were supposed to be in the MTOT after 2/3 days of the training day. When they came to attend the MTOT of 10 days it was already 3 days gone. In the DTOT of the English language in Morang, 3 of the participants received the formal letter late. Even one of the participants came on the 4th day and he was rejected by the facilitator. One of the participants said that he had TB and TG in the school. But he forgot to bring these with him. He opined that if the invitation letter had asked the teachers to bring the required materials such as TB, TG, he would have done so. As his school was far from the training venue, it was not possible to bring TB and TG later.

MTOT versus DTOT versus RC-level Training

The trainers were prepared (in the centre or district) and these trainers provide training to the teachers. How the training was delivered it will have impact on the lower ladder of training as illustrated by some of the illustrative cases and their possible implications in the following box:

Box 2: Training Delivery in MTOT, DTOT and RC level

MTOT

1. Use of storyboard as suggested. Skill was discussed, demonstrated and practiced.
2. Use of weighing machine to solve 'X-4=5'.
3. Suggested flashcard not prepared and said, "Let us suppose this is a flashcard."

DTOT

1. Use of storyboard as suggested. Skill was discussed, demonstrated and practiced.
2. Drawing of weighing machine on the blackboard. Problem left out unsolved after trying for one hour.
3. Suggested flashcard not prepared. Instead of flashcard drawing of thin cat and fat cat drawn on the blackboard, which could not be used for the suggested guessing game.

Trainer prepared flashcard on a piece of paper which was no more than 1.5X2 inches and not readable to all in the training hall.

RC

1. Use of storyboard as suggested. Skill was discussed, demonstrated and practiced.
2. Solution for the problem 'X-4=5' skipped.
3. Cases in which trainer explained about the required material and skipped.

The teacher used the same flashcard in the classroom, which was again not readable to all students in the class.

Implication

Performance level of trainers varies. Evaluate, select and prepare roster. Input for improvement for the trainers (observation and feedback to the trainers in the NCED training started).

Skills discussed, demonstrated and practiced have better chances of transfer. Collection of feedback, comments, suggestions from the practitioners on a regular basis what works and what does not, where lies the confusion, if there are any mistakes in the manual they need to be corrected, and analyzed and improvement made as a regular process.

There is room for dilution as well as misinterpretation/distortion in the cascade model (NCED, 2000a, pp. 33-34). Weakness was found in MTOT as well as misinterpretation or dilution of some of the strengths of MTOT in the DTOT and of DTOT in the RC level training was seen. But dilution and distortion/misinterpretation is not always the case. For example one of the RC level training trainers used tracing paper to teach fraction which was not used in DTOT as transparency was not available. In another case in the DTOT of mathematics the manual covered solution to the problem of the same denominator with different numerator ($1/7 + 2/7$). The trainer at DTOT suggested that the problem of the same denominator should be solved with the same numerator ($1/7 + 1/7$) first. In two of the RC level training schedules, more games/activities were covered as compared to DTOT both in the English language and mathematics. Similarly more of the instructional materials were constructed and used in the RC level than in the DTOT such as for fraction real

objects, colored pictures, and paper cut outs were used. Such good practices need to be appreciated and encouraged.

TOT for In-service and Pre-service Teachers' Training

Nine days' TOT for the trainers of the fourth package of in-service teachers was organized from Magh 2 to 10, 2059 in Janakpur. For the first four days all the participants (40 in total) were trained in one group on 'Child Development and Learning Theory'. Then participants were divided into three groups for the rest of the training period for the subjects of English, Science and Environment, and Physical Education and Arts Crafts. The following strengths as well as shortcomings were observed in the in-service TOT:

Strengths

- The objective of the TOT was put up on the wall.
- Expectations of the TOT participants from the training were collected and pasted on the wall.
- For the Physical Education game practical demonstration was made in the open ground.
- Some of the participants were competent and they participated actively in the training programme.

Shortcomings

- Lack of reference to the curriculum, TG and TB.
- Curriculum, TG, TB not provided to the participants.
- Weak feedback mechanism. Basic questions such as "capital or small letter should be taught first" not answered by the trainer while asked by the participant.
- More lecturing and theory based.

In TOT for pre-service trainers organized by NCED on Magh 11-21, 2059 the following strengths and shortcomings were noted:

Strengths

- Warm up, ice breaker activities used.
- Methods such as discussion, group work, and presentation used.
- Materials such as charts, flashcards prepared and used.
- Use of transparency on the overhead projector.
- Training curriculum and manual followed. In some instances textbook and teacher's guide were also used.
- Copy of the training curriculum provided to each of the participants.
- Spacious and U-shaped sitting arrangement in the training hall of PTTC.
- Separate rooms for group work.

Shortcomings

- Contents of the training manual were skipped as they were lengthy.
- Participants were eager to see what was there in the CAS materials, but CAS materials were not available. CAS was covered on the theoretical basis only.
- Lingering of discussion on whether 'reporting and report writing' is meant to be the same thing or different. There was no decisive conclusion. Clear explanation was also lacking on 'log book'.

In the PTTC based TOT, aspects related to effective delivery of training were observed -- objectives were stated in the training; demonstration and practice was emphasized (Physical Education); manual was followed in most of the cases; methods and materials were properly used; and some of the training skills such as ice breaker activities were utilized. However there was plenty of room to enrich the quality of the training by referring curriculum, TB and TG where essential; timely feedback; and providing opportunity to reflect on the actual materials (such as CAS) is to be used in the classroom situation.

CHAPTER III TRAINING TO THE TEACHERS

Teachers are in the receiving end of the training endeavour. Training prepares teachers for better classroom instructional practices. Strengths or weaknesses in the training of the teachers will have direct impact on classroom practices. Training to the teachers on the basis of observed recurrent training and 10 months' packages is presented in the following sections.

Recurrent and In-service Teacher Training

Altogether 6 recurrent teacher training and 4 in-service teacher training programs were observed (see table 1.1 for details). Four of these were related to the English language, 1 to mathematics, and 1 to the learning process and evaluation. Similarly, 2 of these were connected with the 1st package and the other two with the 4th package.

Outcome of the Observation

Delivery of the training to the teachers was observed at the RC level in connection with recurrent teacher training and at the PTTC level with in-service teacher training. Perceptions and views of the teachers, trainers and DEO personnel were also collected at the time of the field visit. The major findings on the basis of observation and interaction with teachers, trainers and DEO personnel are presented in the following paragraphs:

Training Facilitators

The provision for recurrent teacher training in the English language and mathematics was for two facilitators to deliver a RC level training. There was only one facilitator in one of the training programs, in another one more facilitator joined it on the 5th day only. Those facilitators (in recurrent teacher training and in-service teacher training) who pre-planned the class, prepared and used the instructional materials, demonstrated, provided opportunity for practice and thus they delivered the training in a better way. These qualities were lacking in some of the facilitators. In RC or PTTC level also trainers need to be evaluated for selection and improvement purpose. One of the PPTC personnel pointed out the lack of trainers as a major problem in the training. Due to the lack of trainer for the English language, training was delayed for some days. Training was also hampered as the same trainers were required to be involved in other training. One of the trainer had no prior training nor had he delivered one before.

Training Participants

In 5 of the RCs and all the 3 PTTC level training, the participants were regular. In one of the RC level training in an average 3 or 4 participants were always absent. In one of the PTTC level training also 2 or 3 of the participants were found absent from the class for several days. Local teachers were the ones who were mostly irregular in the class for that PTTC level training. This indicated lack of seriousness among some of the participants as well as lack of the trainer's control. Lack of seriousness was also demonstrated on the part of some of the participants as they were usually side talking and facilitators had to remind them often to pay attention. On the whole, most of the participants took interest and participated in the training.

Availability of Training Materials

A copy of the training manual was provided to each of the participants except in one of the recurrent teacher training. The reason for not providing the training manual to the teachers in that training as expressed by the facilitator was to minimize unnecessary discussions. Later on the fifth day it was decided to provide the training manual to the teachers. TB and TG were not available to all the teachers, nor were they instructed before hand to bring TB and TG with them. Timely reminder would have encouraged teachers to bring TB and TG with them if these were available in the school.

Coverage of the Training Content

One of the DTOT facilitators had expressed that in the RC level training all the contents of the training manual would be covered. But some of the contents were skipped in the RC level training, even about 50% in one of the English language training. All the RC level facilitators said it was not possible to cover all the contents of the training manual, contents in the manual are too many and lengthy. In one of the in-service teacher training observation two lessons were found being covered in one period both in the English language and the Child Development subjects. The reason given was the need to cover the contents before the examination. Trainers mentioned pressure imposed to have to rush to cover the contents as time was short as compared to the content load. These aspects barred teachers from receiving some of the useful knowledge/information and practice some of the useful skills. In one of the PTTC training examination related domination was also observed. PTTC personnel said that the last half of the month is usually spent for the preparatory classes for the examination. Old questions are discussed, guess questions are practiced. Discussion on the type of the questions that might be asked in the examination and the type of the answers that need to be given in order to get good marks dominate the class. PTTC official also admitted that the practice of examination oriented teaching learning than training for teaching skills is dominating PTTC classes.

Transfer of Knowledge and Skill

Those contents, which were discussed, demonstrated and practiced properly and consistently, were transferred better at the RC level. However, there were misinterpretations and distortions of the contents specifically those contents, which were skipped in the DTOT (also see box 2). Some of the cases of misinterpretations and distortions are described below:

- Distortion was observed as sequence was not followed such as word association emphasizing sound was suggested, but letter 'l' was introduced as letter name. After introducing letter 'l', the facilitator started talking about letters, e.g. "How many letters are there in English alphabet?", "Which one is easiest to write?" etc.
- Wrong use of language function such as instead of 'What is he/she?', 'Who is he/she?' was used in expectation of the answer like 'He is a carpenter'.
- In the 'corner' game, instead of giving the name of the corner (apple, banana etc. and ask the students to go to the apple corner/ go to the banana corner), the groups were given the name.

Feedback

There was timely correction and feedback in most of the cases though it was lacking in some cases. For example, the trainer mentioned the need for using listening and speaking exercises/tests to reinforce the use of English. This was based on lecturing and while it was required to develop model items for listening and speaking exercises/tests there was confusion. Participants expressed such a practice was not possible, as they would be required to develop tests and make several copies of them. The participants thought that listening and speaking will also require test papers like in other written examination. Such misconceptions were not corrected. If the facilitator had followed the instruction to prepare and demonstrate the listening and speaking exercise, such confusion would not have emerged.

Provision for Practice

Although more practice sessions were organized at the RC level training as compared to DTOT, more than 50% of the suggested activities were skipped during the training. The main reason for skipping was the lack of time for covering all the contents and activities.

Training Hall

Although there were some materials of RCs already pasted or hung on the walls of the hall there was lack of display of the training-related materials. Neither the facilitators' nor the participants' works were put up on the walls of the training hall during the training period.

Training Manual

The training manual of 'Learning Process and Evaluation' (DOE, 2057 BS) has gone through the 4th edition and has been used in innumerable training sessions. There were activities which were quite relevant and participants reached the expected conclusion such as 'ZEROJILE KASAHARI PAHIRALO' in relation to the meaningful learning. Still confusion and problem were found prevailing in the first session of the first day as well in that training.

- The picture that was supposed to represent an ideal classroom was interpreted to be ineffective classroom by one of the groups in the presentation of the group work. They pointed out that teacher was careless to provide only 4 rooms to solve 5 digit number problem. The teacher was not able to control the class as some of the students were playing and talking (see the picture on the left below). The facilitator had to confess that either it is a printing mistake or the intention was to make students think critically and understand things by giving confusing problems to them.



- Gender sensitivity language has been one of the concerns in the textbook writing. This also applies in training materials as well. However the example given on page 2 promoted gender specific language as daughter was imitating mother and boy was imitating father.

कुनै पनि बच्चा विद्यालय आउनुभन्दा पहिले नै उसका आमा बाबु, दिदी दाजुहरूले गरेका कामहरूको नक्कल गर्ने गर्दछन् । जसबाट उसले केही सिक्किरहेको हुन्छ । जस्तै: छोरीले भान्साका सामान चलाएर हेर्ने, आमाले जस्तै: लुगा कपडा लगाउने, आमाले जस्तै काम गर्ने ।

त्यस्तै एउटा केटाले विद्यालय आउनु अघि घरमा उसका बाबुले के-के गर्छन्, ती कुराहरू सिक्छन् । जस्तै: बाबुले चलाउने औजार चलाउने, बाबुले गर्ने काम गर्ने आदि ।

It is essential to collect feedback from the field practitioners to find out what works better and what needs to be improved upon on a regular basis. Such a provision will be helpful to know what types of activities/illustrations are to be included or continued or improved upon or dropped out.

In many respects strengths, shortcomings as well as issues related to training delivery to the trainers also apply in the training of the teachers. Above description takes account of major aspects observed in the training of the teachers avoiding the repetition of descriptions or examples covered in other parts of this report. In conclusion the major issues in the training for the teachers also relate to the quality of training, focusing the training, demonstration and practice, and on the existing condition of the classroom.

CHAPTER IV

FACTORS CONTRIBUTING TO TRANSFER OF THE TRAINING SKILLS IN THE CLASSROOM DELIVERY

During the first phase of this study, classroom delivery made by the teachers who had any of the modular or whole school or 10 months' package training was observed. Analysis of the observed classes was done by comparing classroom delivery with respect to the related topics/suggested activities of the training manual that the training recipient teacher had received. (Please see Appendix 4 for details). Based on findings from the first phase and observation from this phase of the study, reasons for non-transfer of training skills and contributing factors in the transfer of training skills has been analyzed.

Reasons for Non-transfer of Training Skills

Various studies conducted by NCED (July 2000a; July 2000b; July 2002a, July 2002b); CERID (July 2002a), MOE (1997, 1999), PEDP (1993) reported that the skills covered in the training are not transferred in the actual classroom teaching learning at an intended level. This study focused more on examining the aspects that affect transfer of training skills rather than on the extent or types of skills being transferred in the classroom delivery. Based on the preliminary findings further research questions were developed to find out reasons for non-transfer of training skills. The reasons for non-transfer of training skills relate to teacher, training and curricular materials as described in the following paragraphs:

Teacher Related

Factors such as teachers being skeptical about the newer techniques/methods, inability to give up old habits easily, lack of competency on the subject matter, lack of motivation and indifference on their part were the reasons for non-transfer of training skills that relate to the teachers.

Skeptical of Newer Techniques/Methods

In one of the FGD three English language teachers participated. Expressing his view one of them said that in grade 4 English language textbook alphabet is not covered in the very beginning and his concern was how can children learn English words without learning the alphabet first. Then one of the researchers showed how by using flashcards and by associating real objects, pictures and word cards new words could be taught without having to translate or spell the words. After the demonstration teachers pointed out that words can be taught first. Such a case raises the concern that teachers are likely not to use newer techniques/methods if they are skeptical of the fact that these can really make a change, or improve the classroom delivery. Such situation is most likely to occur if the training focus more on knowledge transmission and there is the lack of demonstration and practice during the training. Demonstration and practice is a vital tool for the internalization of concepts and practical use of the skills.

Inability to Give up Old Habits Easily

In one of the mathematics classes the teacher was suggested to use the addition method to teach concept of multiplication in the TB as well as in TG. Teacher rather preferred to have the children memorize the multiplication table. When asked why he preferred the multiplication table to the suggested activity, the teacher said that he tried the addition method for a while, but found it time-consuming. He found it

was more easy as well as quicker to have the children memorize the table. Anyway the end result is the ability to multiply by memory. This was how the teacher was taught and this is the way he has been teaching for years. It was not easy for him to give up old habits. In two other cases the English language teachers tried to deliver their class in English medium. They were right that the English language class need to be delivered in English. But the classes were messy from the very beginning. In one case teacher started by asking questions about what students could see in the given picture. When he failed to get answers, he explained in Nepali and got answers in Nepali. Teacher provided answers in English and ask student(s) to give the answers and answer were given in a chorus -- the usual practice. Then he said 'again' meaning repeat the answer and students said in chorus 'again'. In another case teacher asked a question 'From where have you come?' Instead of replying to it, the student repeated the same line. Then the teacher had to explain in Nepali that it was a question which must be answered. This indicated that teaching in English was not usual practice in the class even though teacher was aware that English has to be taught in English medium. It is important that if the methods, techniques provided in the training differ than those in the practice, teachers need help first to unlearn and overcome old habits. Then only learning new skills would be useful and relearning exercises would be fruitful.

Lack of Competency on the Subject Matter

Both the knowledge of the content matter and the skill to use it are essential for effective classroom delivery. Specifically some of the English language teachers had problems due to insufficient competency on the subject matter and inability to speak in English.

Lack of Motivation and Indifference on the Part of Teachers

The desire to learn and use the skills was generally not strong. For most of the teachers training was meant to attend it only and was a routine affair. This general impression of the research team was shared in the workshops in Kaski and Morang which was attended by teachers, trainers and DEO personnel. It is noteworthy that workshop participants expressed that unmotivated, and indifferent attitude of the teachers was one of the major factors for the non-use of training skills in the classroom delivery. They also expressed that there was no compulsion for the teachers to use skills they have learned in the absence of follow up, monitoring, reward/punishment or accountability.

It is not easy to discern whether it is due to slackness in the training or to the unmotivated nature of the teachers for non-use of the training skills in the classroom. In one case the class taking of one teacher was observed. Teacher used and demonstrated flashcards with pictures; also asked questions (Who is he/she? What does he/she do?); used drill exercise. But it lacked the model as emphasized in the teacher's guide as well as in the training manual; language function was incorrectly used (he should have asked -- What is he/she? What does he/she do?). It was required to drill first and then ask questions, but he asked questions by showing the picture cards from the beginning. The teacher was requested to consult the textbook, teacher's guide and any other related materials to prepare the lesson and repeat the same lesson next day. On the second day the difference in terms of improvement observed was -- vocabulary was introduced by writing on the blackboard, drill was used, asked to read the word by pointing to the word from the list on the blackboard. Modeling was done by showing the same picture card as was used on the pervious day (This is a farmer. A farmer grows crop. This is a hair dresser etc.) Still some gap was observed -- class work was given and then chain

drill was done; drill not related to day-to-day experience of the children; drill was not done by pointing to the list of the word; the emphasis was on the spelling; language function was not used correctly. For the third day researcher and the teacher prepared the lesson together. On the third day these improvements were observed -- introduce word with the help of flashcard one by one; model with the help of flashcard; used job and work in sequential order with the help of flashcards -
- A chemist (in on one side of the flashcard), sells medicine (on the back of the flashcard); used correct language function ('What is he/she?' used instead of 'Who is he/she?'); used pair drill for the students getting them to ask each other questions with the help of flashcards; asked questions related to students (What are you? What do you do? What is your mother/father? What does she/he do? etc.); such drills were used among the students, with teacher as well as with the observer. Later researcher found students asking (What are you?/ What do you do?) and replying outside the classroom during the break (see Appendix 5 for the description of the classroom delivery). This case indicated that teacher might not be using skills which he/she can do with some preparation.

Teachers' Attitude to Shirk: Usual responses for the non-use of training skills are usually related to lack of materials, time, support, budget, space, conducive home environment, commitment, monitoring and so on. Crowded classes are another generally indicated problem. Similarly it is indicated that it is difficult to teach English in English medium in the public schools as English is introduced only from grade IV. In some cases these aspects create a problem, but not always. For example, unavailability of musical instruments might affect 25% of the Creative Arts curriculum, but it is not justifiable for not covering the remaining 75% of the curriculum. During classroom observation there were also the teachers who were found trying to run the English language class in English and a few delivered it in a normal way in which students participated and spoke in English (see Appendix 6 for the case study). Among the reasons indicated for the non-use of training skills some are exaggerated such as lack of materials (lack of what materials come on the way to engage students in a discussion not specified in most cases), and some are pushed on the way (crowded class even in a class of 35 students). These might rather be ascribed to the nature of the teachers to shirk work and considered as an excuse for not using training skills in the classroom delivery as discussed in the workshops conducted in Kaski and Morang. However, in crowded classes with a larger number of students, group work, individual attention, and games requiring physical movement, etc. were difficult to adopt.

Training Delivery Related

There were also cases related to the delivery of the training which were instrumental in the non-use of the training skills in the classroom delivery.

Confusion Arising from Coverage of Too Many Techniques/Activities

Some teachers seemed to get confused with too many techniques/activities being suggested in the training. They pointed out that there was not sufficient time for internalization and practice. Considering the background of the teachers' education (the way they were taught) and most of them with SLC as highest academic qualification, and on the top of that without prior training, primary level teachers need to be equipped with few essential skills through demonstration and practice. Theory and lecture will not be sufficient.

Skill not Provided Properly

In some instances a gap was observed in the training delivery itself which might affect the use of the skill in the classroom. For example, lack of proper and understandable explanation in the manual created difficulty in solving ' $X - 4 = 5$ ' in one of the DTOT which supposed to be solved by using weighing machine. In another case lack of demonstration by using appropriate materials distorted the intent of the activity -- drawing picture on the blackboard instead of the flashcards as suggested in the manual was not appropriate to teach opposite words in a guessing game format in the English language. The participants expressed the view that if skills are not provided correctly during training, these skills are more likely not going to be used later. When the problem ' $X - 4 = 5$ ' could not be solved of weighing machine on the blackboard, one of the participants remarked, "Such exercises are meant for the training only and not for the classroom. We do what we have been used to in the classroom..."

Curricular Material

Some of aspects for non-use of the training skills in the classroom delivery was related to curricular materials and perception on their use.

Some Inherent Problems Within the Curricular Materials

Subject-wise analysis of the first phase of this study (CERID, July, 2002a) indicated problems in curriculum, textbooks, and teacher's guides in some places. For example, higher-level curriculum objectives are not adequately addressed in the textbook and teacher guides in some cases. There were examples and activities such as visiting health post not relevant to the primary level children. In some places teacher's guide, textbook content exposition were not relevant such as the exposition of the concept of bar graph and its use coming in the students' mind in an insightful manner. Similarly, there were some suggestions, which were incompatible with the usual classroom environment such as lining up boys and girls into two lines in front of the class to convey the concept of 'set'. Analysis of the training manuals also indicated a need to improve in some places. (See Appendix 7 for the analysis of the training manual).

Misconceptions that the Course has to be Covered

Some of the teachers expressed the view that when activities, games, group work etc. are used it takes time. In such a condition, there might not be sufficient time to complete the course. It is not easy to conclude whether the given course can be covered in time when TG is followed and the training skills used. But finishing the whole TB content even if children fail to catch up is not appropriate. They were of the misconception that the course had to be covered and completed even though children do not understand it well.

Result Oriented Focus

Another barrier was the disposition towards obtaining immediate outcome. Such immediate results can be obtained more by memorizing the word meaning than the word and its pronunciation or by memorizing the multiplication table than by conceptualizing it through repetitive addition work.

Contributory Factors in the Transfer of Training Skills

The above mentioned reasons for the non-use or limited utilization of the training skills in the classroom delivery were derived through the classroom observation, and interaction with the teachers, trainers and DEO personnel. Preliminary findings were shared with the FRAG, experts and concerned institutions of MOES. For the verification and deriving more of the supporting examples, workshops were organized in the study areas -- Kaski and Morang. Based on these reasons for non-use or limited use of training skills in the classroom delivery the factors related to delivery of training, curricular materials and motivation of the teachers become prominent in affecting the transfer of training skills in the classroom delivery.

Delivery of Training

There were some of the conditions, which were important for the transfer of training skills in the classroom delivery that were related to training delivery itself. These are described in the following paragraphs:

Teacher Need to be Convinced and to have Confidence in Suggested Techniques/Methods

Teaching the English language in English medium is a rare practice in the public schools. Only a few teachers were found teaching English in English medium. One of those teachers expressed the view that she was motivated to use English medium in the English language class as it was emphasized and demonstrated in the training. The trainers got the participants to speak in English and also make their presentation in English. The key to make her convinced and confidence was -- discussion, demonstration and practice. On the other hand, another teacher was concerned about "How children can be taught English words without first learning the alphabet and the spellings of words?" The trainer did not explain it and show how it works. The teacher as trainee was not convinced from the lecture only. Similar was the case of the mathematics teacher who preferred multiplication table than providing concepts of repetitive addition that he thought to be time consuming.

Sufficient Opportunity to Discuss, Demonstrate and Practice

In one case the teacher was requested to prepare and repeat the same class. Group work and discussion was suggested in the teacher's guide. When teacher was requested next day to follow the suggestion provided in the teacher's guide, she innocently asked, "How to form a group?" Further discussion revealed that she was told about the group formation in the training, but formation and use of the group was not practiced in the training. It is also important that there is opportunity to discuss, demonstrate and practice during the training to understand and use the skill.

Proper and Consistent Practice of Skill During Training

As described in box 2, use of storyboard in DTOT also was properly made at the RC level. Whereas solving 'X-4=5' by using a weighing machine done by drawing on the blackboard weak both in DTOT and RC. Drawing on the blackboard where flashcard was suggested which was not appropriate for the suggested guessing game. This indicates that if skills are not properly and consistently practiced, there is chances for them not being properly used or used at all.

Curricular Materials

Transfer of training skills in the classroom delivery is also affected by the quality as well as use of the curricular materials. These aspects are described in the following paragraphs:

Up-to-date Curricular Materials

Training manuals/ trainer's manual/ teacher's book/ guidelines are developed and distributed in most of the training programmes. Naturally some of the activities suggested would be appropriate and some weak and confusing such as in modular training package 'teaching process and evaluation'. Activities such as 'ZEROJILE KASAHARI PAHIRALO' were quite relevant and effective whereas the activity to identify condition for effective learning was found confusing in the same manual. Up-to-date curricular materials would be helpful in enhancing the quality of the manuals as well as of the training. Confusing contents, uncorrected errors lower the quality. Content related analysis can be obtained from the experts, but practice related information can be provided by the users -- trainers, teachers, parents, students, DEO personnel. Collection of feedback from the field need to be a regular feature.

Clear instruction in the training manual is also felt necessary. 10 days English language teaching training seems to be incorporating maximum of the activities that can be covered and skipping of the contents allowed when required. But which activities to skip or what instructions to provide for the skipped activities is not mentioned. In the case of 10 days mathematics teaching training there is suggestion to discuss what other methods/activities can be undertaken in addition to the suggested ones in the manual. In this respect methods/activities incorporated in the mathematics teaching training is minimum one. In the manuals such as "teaching process and evaluation", 'Basic Primary Teacher Training' methods/activities suggested need to be covered. The expectation is the equalizer. It is important to relate skipped activities/methods to what is possible to cover.

Motivation of the Teachers

In the workshop teachers, trainers and DEO personnel expressed that in most of the cases training is meant to attend and then to forget. If the teachers and trainers have such an attitude, it will affect transfer of training skill. In interaction with the teachers crowded class was given as a reason for non-use even by the teacher teaching in a normal class, lack of materials whereas activities not requiring any materials were also not undertaken. How to motivate teachers and trainers is a challenging task. Other means such as supervision and accountability can be options to motivate teachers to use in the classroom skills learned in the training.

CHAPTER V DISCUSSIONS AND IMPLICATIONS

Teaching is a professional activity that requires specialized knowledge acquired through training and experience (Pollard, A and Bourne, J, 1994, p. 80). Teachers require specialized knowledge, which needs to be refreshed from time to time. BPEP has launched recurrent teacher training under DOE and certificate training under NCED and DEC. This study as well as other research studies cited in this document indicated that the transfer of training skills in the classroom delivery is weak.

Anything to happen in the classroom, the regularity of the teachers and of the students is the prerequisite. Teaching learning cannot take place in a vacuum. Physical facilities, instructional materials, training to the teachers will be supportive in teaching learning when these are used properly. Non-use or improper use cannot bring out the desired impact. Teacher training is not for the sake of imparting knowledge and distributing certificate only. It is to develop skills to be used in the classroom.

Barriers in the transfer of training skills might develop due to various reasons -- training is not effective, skills are not developed properly, teachers are not convinced that the skills learned in the training can be helpful in the classroom delivery, lack of conducive environment to use the skills, lack of timely support at the time of need, etc. This study has found gaps in the training with regard to providing skills in a proper manner as well as in terms of teachers who remain skeptical of or are unconvinced including the lack of conducive environment and of timely support for the weak transfer of training skills in the classroom. There are other reasons as well for the weak transfer of training skills in the classroom as described in the previous chapters. These factors/reasons are related to the quality of training, training manuals, classroom environment, and teacher. In this chapter measures to maximize transfer of training skill as well as some issues and options are discussed.

Measures to Maximize Transfer of Training Skill

Measures such as enhancing quality of training, providing more focused training, striving to make the cascade model work, making the trainers skillful in delivering the training, monitoring of the utilization of the training skills are essential.

Quality Training

Specifically in the recurrent teacher training of DOE, the cascade model is adopted. The experts at the centre train master trainers. Master trainers in turn, train district level trainers. Only after the training passes on to the third hand the training skills reach the classroom. Carrying forward the weakness/ shortcoming in the training from one level to the next as well as dilution of the skills was found in a number of instances. It is essential to maintain a standard in each level of training in the cascade so that the loss of skill from one level to the next is minimized. This also applies to the TOT of NCED-led training. One way to maintain the standard in each level of training is to evaluate each of the training through pre-post test, and perceptual information from the trainers and trainees. Evaluation of the training was planned in MTOT of the English language and Mathematics. These plans need to be implemented.

Capabilities as well as effectiveness of the facilitators and TOT participants differ. This is natural, but it should not be taken for granted and ignored. Training delivery

is not one time event. The same training needs to be delivered several times, in several places, for several groups. DOE and NCED need to maintain a roster of trainers and select the best ones on the basis of objective criteria. For this minimum criteria (qualification and experience) can be the existing ones for the trainers coming for the first time. Continuation of the trainer/ facilitator should be based upon his/her performance. *One way to judge the effectiveness of the trainer/facilitator is session evaluation and pre-post test for TOT participants. Perceptual information such as rating of the trainer/facilitator by the participants and vice versa can also provide information on the effectiveness of the concerned individual.*

Quality of training is related to the provider (trainer) and receivers (trainees/teachers). Training should be able to convince the receivers that skills covered in the training can make a change in the classroom teaching/learning. It is not easy to convince teachers what can and what cannot make a change in classroom practices by loading theory only. It should relate to the classroom situations teachers live in and discuss the problems teachers face. Teachers need to witness and be convinced what works and what doesn't during the training. Demonstration and practice will provide such an opportunity. It is also important to *ensure proper and consistent practice of skill during training.*

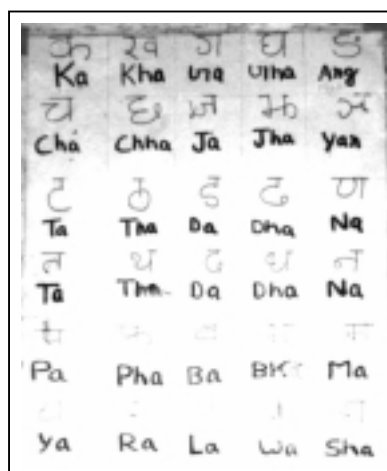
Relapsing to the old habits is also a reason for non-use of the training skills. Old habits need to be overcome first. There is a bulk of untrained teachers (only about 16.6% of public primary level teachers fully trained as reported in 2001, DOE) in the schools of Nepal teaching for a number of years. They might have developed their own habits and ways of teaching which might not be compatible with the techniques/methods provided in the training -- for example teacher-centered vs. child-centered education, whole class teaching vs. individualized instruction, subject teaching vs. grade teaching. Analysis of the training manuals as well as observation of the delivery of the training indicates that the focus of the training is on providing newer techniques/methods without adequately explaining why old/traditional ones are ineffective/inappropriate and new ones are better. New techniques/methods pile up at the base of old ones that might be contradictory at times. This might create confusion and inadequate internalization leading to relapsing to the old habits. *Training needs to help unlearn old ones, learn new ones with the provision of relearning. Teacher needs to be convinced and gain confidence with suggested techniques/methods.*

Focused Training

There are two prominent realities that affect teacher training -- one, a majority of the teachers in the primary level are with the SLC as their highest qualification (66% SLC and 3% under SLC in the public primary school in 2002) and two, a majority of them are still untrained. Such a situation will remain for a number of years even if sincere endeavors are made to improve it. How much an SLC qualified teacher can grasp and how much he/she can utilize in the classroom needs rethinking. Writing a training package, if it is mainly desk work, piles up a number of techniques, methods, activities, games, projects, group work etc. Such work will be effective in transferring information. As a bulk of information is to be transferred within a limited time slot time is squeezed for much needed demonstration and practice which forms the key to internalization of the skill and know-how leading to the effective and correct use in the classroom. Time can be utilized best if the training is much focused on than dispersed in range and theme. In order to manage such a focus, it is necessary to visualize an ideal primary classroom teaching learning that is possible in the existing scenario. Experts and planners need to work out this. Then

it is necessary to identify minimum skills required for envisaged classroom teaching learning. This is meant not to limit the possibility nor to spoon feed the teachers, but it is for maintaining minimum standard in classroom delivery. Self reading materials, need based refresher training will be useful for broader perspective and wider coverage for those teachers who prefer it. It will be helpful for the teachers to *demonstrate, practice and impart skills if focus is on basic essential skills that are the key aspects for the classroom delivery. These need to be emphasized and reemphasized in appropriate places and activities in the classroom delivery.* Competency-based curriculum developed for in-service and pre-service training is the major input in the identification of the basic essential skills. Several of the objectives of the basic training curriculum (NCED, May 2000, pp. 1-2) are related to 'student-centered learning' theme. 'Student-centered learning' theme recurs in the BPEP documents such as MTR, March 2002; 'Concept paper for further support on BPE in Nepal 2004-2009' and various training manuals. One further step that is required in its progressive improvement endeavor is to weave training objectives and training skills in a vision of a desired teaching learning practices (such as 'student-centered learning') at the primary level.

Training must also consider the existing condition and problems of primary classroom in Nepal. The number of students varies in a classroom from school to school. Some of the schools have to accommodate about 100 students in a classroom whereas the few number of students in some of the schools is suited only for multi-grade teaching. Training needs to focus on the prevailing reality and enabling teachers to deal with the existing condition. Specific problems need to be addressed with the concerned group of trainees in order to tailor the training to address their requirement. It is also necessary to utilize the training period as an opportunity to model what an ideal class should look like emphasizing components



covered in the training such as display, use of materials, sitting arrangements, group work, etc. In-service training curriculum (NCED, May 2000) covers contextual application in its fourth package. This is very important to address the existing situation in the schools and their problems. Contextual applications need to be discussed and if required demonstrated and practiced whenever queries are raised by the trainees. It is important to remind and focus on what learning outcome is to be focused during training for undertaking suggested activities. For example materials displayed (Devnagari alphabet in English alphabets translation -- Ka, Kha... as shown in the picture; multiplication table) might be used for rote memorization purpose which might not be compatible with the methods and techniques in the training.

Making the Cascade Model Work

Is it always necessary that dilution occurs in the cascade model? A more optimistic answer should be 'no'. A study conducted by NCED (July, 2000a) found a number of gaps and dilution of skills from what was learnt in training and what was practiced in the actual classroom situation. However the study also reported some areas where teachers did better or equally well as the trainers did as shown in the following matrix,

Areas	Trainers (%)	Teachers (%)
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Use of motivation before introducing the lesson	78	75
Informed about the contents for the next session (to the trainees/students)	53	50
Gave class responsibilities	22	40
Clear and legible writing on the blackboard	47	100
Satisfactory use of blackboard	50	84
Homework given	34	87
Discussion on previous day's homework	25	55
Use of lecture method	69	56
Use of question-answer method	78	86
Lesson plan used	25	26
Unit plan prepared	None	8

In this study as well a few cases were observed in which trainer at the DTOT and RC level performed better than the upper ladder such as in Mathematics the manual covered solution for the problem of the same denominator with different numerators ($1/7 + 2/7$). Trainer at DTOT suggested to solve problem of the same denominator with the same numerator ($1/7 + 1/7$) first. Dilution of the training is not always the case.

Yes, if in a relay race strength and rhythm of the race is not lost but gained why should not there be similar results in the cascade model of training. Training of the master trainers needs to be more generalist in nature so as to cover the national scenario. District level TOT can be more focused to embrace situation and problems of the district leading to more focused training addressing the local situation and context. In the RC level real situation and problem faced by the teachers/school can be addressed, demonstrated and practiced. Knowledge and experience of the trainers and trainees should be able to enhance the relevancy level of the training, and invent ways to make the training skills more relevant to the local condition. But this will be possible if content to be covered is limited so as to provide the opportunity to discuss, demonstrate and practice the skills. Both in recurrent training and in the 2.5 months package training, trainers were found striving hard to cover the content, at times even by skipping some sections of the training manual. *Dwelling on basic and useful skills with the opportunity to demonstrate and practice can be better than piling up unusable information.* Proper understanding and practice is essential for the utilization of the skills. Then the cascade mode of training can also work effectively. Otherwise the best option to minimize dilution of the training skills is to reduce the levels/ladders of the training in the cascade.

Training Delivery Skills in the TOT

Both in recurrent and 10 months package training there is the provision of the TOT. But these were found more focused on the contents to be covered in the training and the required skills to deliver training were largely lacking. TOT needs to include training delivery skills as well in order to enhance the quality and effectiveness of the training.

Monitoring the Utilization

It should be mandatory for the teachers to use skills learned in the training in their classrooms. If materials and support are required, these also need to be provided. But it should be an integral part of the training to monitor utilization of training skills. Frequent monitoring rather than frequent training should be made the policy. What impact can we expect if the skills learned are never used in the classroom? Regular improvement based on the monitoring reports (such as monitoring report of NCED, Ashad 2060 BS) also needs to be practiced.

Issues in the Training

This study focused on the transfer of training skills in the classroom delivery. Several other issues were raised at the field level and during interaction/sharing sessions. Those pertinent issues related to training could not be adequately covered in this study. But it will be pertinent to list those issues here.

Is the 10 days' recurrent training really refresher training? For a number of the teachers the recurrent teacher training is the first one they have had.

Is the 10 months' package an academic course or training? During one of the training observations of the first package of training, the content covered was on continuous assessment. Concepts and definitions were described, strengths and weaknesses were listed. The major lacking observed in the demonstration and practice to use CAS in the classroom. Forms or portfolios to be used and how to use were left out. To expect teachers to use CAS by providing information on it might lead to the weak transfer of skills. A very heavy load of the content and the lack of sufficient room for demonstration and practice were pointed out.

Training -- information transfer or skill transfer? Questions were raised whether the training emphasis on information transfer or skill transfer.

Training -- compulsion or option? A definite answer is difficult. If teachers choose the training voluntarily as the felt need, it is more likely that they will use the skills in the classroom. Whereas bringing unmotivated teacher to the training hall will be only a wastage. But if the training is optional most teachers may choose not to be trained? How can a teacher feel the importance of the training if his/her background is not education or he/she had none of the training?

Why so many packages? There are six modular, 2 whole school and 2 subject packages in the recurrent teacher training and subject-wise and education related 4 packages of 2.5 months each in 10 months' certificate training. In terms of materials trainers' manual, teachers' manual, self-reading materials, radio summary are provided. There are repetitions, which are not appropriately linked. Issue is raised if the packages are too many. On the other hand issues are also raised to the effect that the training does not address all the needs of the teachers.

What does all this mean – child-centered/student-centered/child focus/joyful learning and how are these applicable in the classroom situation in the Nepalese context? These terms are loosely defined and also not referenced and related throughout the training manuals. The ultimate goal of the teacher preparation might be to promote child-centered education and individualized instruction. But the training and the prevailing classroom practice focus on teaching rather than on student's learning. These ideas are rather a pious wish than a practice or goal sought in the near future. Few quotes can highlight the complexity,

Embracing **child-centered approach** Kilpatrick developed a four-stage learning from real situation through topics,

1. The children specify what they want to know, ask questions, and devise ways of finding out.
2. They consult books and develop an action plan.
3. They execute that work.
4. They present findings to others, review, and make judgements. (Pollard, A and Bourne, J, 1994, p. 189).

Rousseau emphasized the fact that the child should be free to learn from direct experience. Dewey advocated that children pursuing their own studies would be

motivated to speculate, observe, gather information, and test out guesses or hypotheses to solve their own problems. (Pollard, A and Bourne, J, 1994, p. 189). It has also been advocated if it is not children's experiences and interests that direct the curriculum content, their experiences and interests need to be considered by the teacher. **A child-considered pedagogy** takes account of children's experiences and interests, but decision is made by the teacher. In the view of Collins, Insley and Soler,

These curriculum medium, many of which are directly relevant to children's experiences and interests are, nevertheless, teacher-led decisions. In terms of progressive pedagogies this approach could be described as a 'child-considered' approach rather than the child-centered education' rhetoric which espouses a curriculum content generated by the direction of children's interests, the range of children's interests, the importance of children of a multi-sensory, 'hands-on' engagement and the necessity to differentiate the pace of learning relevant to their age and achievement level. (2001, p. 152).

A logical approach in developing teaching learning in Nepalese primary classrooms would be to focus on 'child-considered' pedagogy leading to child-centered approach in a systematic manner. Merely using high sounding terms without building a concrete base is worthless. Similarly terms such as individual attention, individualized instruction are confused with whole class teaching followed by individual monitoring.

Individual attention occurs when the teacher interacts privately with a single child. By contrast individual work takes place when all the children have different tasks, frequently drawn from a wide range of curricular areas. When individual work is in progress the teacher is almost bound to favour individual attention as well because no two children are doing the same thing. (Boydell, 1978, pp. 66-67).

Individualized instruction requires teacher to work on a personal, one to one basis with each student; tailor instruction to specific needs and abilities of the learner; learners be free to work alone at their own pace; and pace, medium of presentation, study style, context, evaluation technique are adopted to the needs of each individual students. (Chauhan, 1979, p. 59). Child-centered/student-centered/child focus/joyful learning are used in training manuals, but there is lack of clear explanation of these theories as well as plans and activities to accomplish these.

Do we need different training packages for different classroom situations (crowded vs. less numbered)? Coping with crowded classes in some schools and a need for multi-grade teaching in some schools with a small number of children is the existing reality. However, teacher training mainly focuses on the classrooms with the ideal number of students. Concerns were raised if there is a need for different training packages for the crowded classes, for the ideal classes, and for the schools with a small number children. In the workshops at the field it was emphasized that the existing packages need to address such needs with appropriate examples and presentation of techniques/methods relevant to cope with diverse situation.

Only permanent teachers for training? This was the concern raised in the field. Teachers are required to work as temporary even for 7/8 years. But they are not entitled for the certificate training. If quality of the classroom delivery is to be improved, this barrier is not desirable.

What is the implication of the prevailing condition of the school in the transfer of training skill? This study was mainly based on case studies and interactions. During discussion in the FRAG teachers background (level of academic qualification,

number and type of training, permanent or temporary tenure, years of experiences etc.), teachers' attitude and motivation, school environment (support and leadership of the head teacher, normal or crowded class size, availability of instructional materials) were also pointed out which could play a major role in the transfer of training skill. These aspects need to be examined further.

Some Options

Training alternatives were also discussed at the field level. Some of the views from the field needs consideration,

Recurrent training followed by 2 years' follow up: Emphasis needs to be more on providing training and follow up on the utilization than on providing training without assessing the impact and use of the training. A teacher needs to be kept under supervision and followed on for two consecutive years and provided support at the working place.

5 months' theory-based open course, 5 months' focused practice based 10 month's package: Theory-related courses can be compiled and arranged in an open course for all the teachers. This can be self-reading supported by distance modes such as radio programmes, and correspondence. Enrolment should be open for all the teachers. A rigorous, comprehensive examination must take place at the end of this theory-based course. Candidates can be selected on the basis of merits in the theory-based examination. For the other half of the package, 3 months can be set as a face to face course emphasizing micro teaching, demonstration, practice, instructional materials construction, and theory-practice link. Those who fare in this 3 months' course needs to, complete 2 months school-based practice. School-based practice need to be followed up, teachers prepare reports followed by practical exams. The first 5 months' open course will provide to all the teachers equal opportunity for the training, and less resources will be spent for theoretical aspects.

Consolidation of the efforts rather than frequent changes: Another major concern raised was regarding frequent changes in the training modality and packages. A need to provide time for consolidation of the efforts, and the use of the skill prior to assessing the impact was pointed out.

Further Research Studies

Grade one: Teaching lea
Grade 1 is characterized
teaching at the grade 1
students. Teachers' resp
indicated that these
community they come f
were without ECD or p
the least priority. They
lighted and ventilated



picture. They were also least advantaged in the priority of getting good teachers (Aaltonen, 2002). In 25% of the schools, first grade teachers were part time and new comers with 1 to 2 years' experience only. As new comers they had no opportunity for any kind of training. Grade teaching in about 12% of the schools was in lower grades. The general feeling of the grade 1 teachers was negative as they felt they were given the responsibility of grade one as a weak teacher. They also found it difficult to manage children who are new to the school, and the children could not concentrate on the study. Classroom observation at grade one is also not

encouraging. Teaching learning at grade one is characterized by chorus repetition of Devnagari letters (Ka, Kha... Ka, Kaa, Ki, Kee...), numerical or textbook content is read out by teacher or a lead student. Another common practice was meaningless copying from the textbook, from the blackboard or copying the same line on a page. Classroom work was generally controlled by using the stick or by giving threats rather than by engaging children in joyful activities. One thing that first grade can be found ahead from the rest of other classes was that their chorus shouting could be heard far away from the school as they would be greater in number and mostly engaged in chorus repetition. Emphasis was on teaching rather than on learning and teaching was also limited to chorus repetition or meaningless copying. Child-centered approach, joyful learning or individualized instruction as emphasized in the training manuals were lacking in the classroom of grade 1 as well. It is important to conduct a comprehensive study on grade 1 in order to describe the situation at grade 1, identify issues and problems, and suggest measures to improve the teaching learning system in grade one.

Teaching learning in private schools: In this study two private schools were also included to observe teaching learning practices in the private schools. It is difficult to generalize the actual teaching learning practices in the private schools, but the findings of this study corroborate the need to conduct a comprehensive study on the teaching learning practices in the private schools. There were three intermediate level pass teachers and two SLC pass teachers in one of the private schools and none of them had any kind of training. In both the schools the average class size was below 30. In one of the schools, the class was crowded even with less than 30 students as the classrooms were small. There was the lack of display of materials in 90% of the classes. There were pictures and some charts in the pre-primary classes of these schools. Aspects which were found better in the private schools compared to the other sample public schools were -- 1) teachers and students were regular, 2) full time engagement in classroom, and 3) homework and class work given, corrected and feedback provided. In terms of teaching learning practices private schools were not better than public schools. Practices in the private schools were -- 1) paraphrasing, 2) repetition of the content for example in one of the classes the same item from the textbook was repeated three times -- first teacher read out by paraphrasing, secondly the teacher asked students to read out paragraphs from the textbook, thirdly the teacher asked question from each of the sentences of the lesson in a paraphrasing style, 3) emphasis on homework and class work -- in one of the schools the first period was of 50 minutes and the other periods of 40 minutes so that teachers would have more time in the first period to check homework and most often homework from each subject was given. Rote memorizing was the key in the teaching learning practices. It is necessary to find out whether private schools are providing an education which they claim is different or is it their specialty to have children rote memorize in a better way. As quality education is the right of a child, whether in public or private schools, quality and child-focused education should be ensured in the private schools as well.

Managing crowded class problem: Even if the teacher has acquired the required skill and is motivated to utilize it, in a crowded class situation, he/she might not be able to use the skill. In such a condition first the problem of a crowded class needs to be tackled.

School-based assessment for effective classroom instruction: Major input of BPEP has also been in the area of assessment for the effective classroom teaching learning. Assessment is not only meant to appraise the achievement level of the students, it is aimed to plan and provide required support to every student to learn to his/her

maximum potential. Therefore it is essential to study on school based assessment for the effective classroom instruction.

CHAPTER VI SUGGESTIONS

This study has come up with the following suggestions which are meant to maximize transfer of training skills in the classroom:

Maintain Quality of the Training Delivery

- Provide training to the trainers covering training delivery skills as well. NCED has developed 10 days TOT guidelines (Poush, 2059 BS) in which the first two days are for providing training delivery skills (communicating objectives/expectations, house rule, participatory approach, adult learning, classroom management, and feedback techniques. In the revision works of this TOT guidelines, some more training delivery skills need to be incorporated such as warming up/ice breaker exercise, getting participants' attention back, time management (with the provision of wall clock in the training hall), involving non-participating participants, managing/controlling unnecessary discussion, modeling the training etc. Feedback from the field must also be analyzed and reflected in the revision work of TOT guidelines.
- It will be helpful for the DOE/organizer to find out the effectiveness of the training to improve the training on a regular basis. Three types of tools can be used for the evaluation purpose,
 1. Session evaluation to evaluate facilitators and to improve the session.
 2. Training evaluation for the perception of facilitators and participants which can be helpful for further improvement of the training and also for making the training based on the needs of the practitioners.
 3. Pre-post test must be used to identify needs and/or tailor the training according to the nature and needs of the participants.
- Training session needs to be tailored in a way that emphasizes display, use of materials, undertakes activities as suggested, and localizes/contextualize the situation/activities/examples, etc. It is important to remind and to re-insist on what learning outcome is to be focused during the training in the suggested activities, for example, display of the materials.
- Required training materials like TG, TB, Lady Bird book, cassettes and other materials should be provided.
- A mechanism to collect feedback from the field and correct the mistakes in the training manual needs to be established. Feedback from the trainers and participants about what works well, what needs to be improved and where the problems are need to be collected and catalogued at the district level and sent to the center. This will be helpful to improve the materials periodically. For this task, a person(s) at the districts and in the center should be assigned.

Provide Focused Training

Provide focused training, in as much as time and resources would allow learning and practice of the skills and impartation of essential skills to a primary level teacher. For this,

- Visualize what an ideal primary classroom in Nepalese schools should be like in terms of children's learning and classroom environment.
- Identify minimum skills required by the teachers in such a classroom. At least these minimum skills should be provided to the teacher through training.
- Emphasize discussion, demonstration and practice of the skills during training.
- Refer to existing conditions and link skills that are needed to meet varied situations - crowded, normal and multi-grade.
- Use training as a model classroom.
- If techniques/methods suggested in the training are different from the practiced ones explain and help teachers to understand how these can be effective such as no alphabet teaching and no spelling in the beginning in the English language, repetitive addition rather than memorization of multiplication table.

Recently adopted pre-service as well as basic training curriculum of NCED identified the competencies for teacher training and emphasized activity based and guided practical activities as training modality. These are essential to visualize teaching learning in a primary level classroom. Several of the objectives set are related to student-centered learning which is emphasized in BPEP documents such as MTR, March 2002, 'Concept paper for further support on BPE in Nepal and also in various training packages. The next step is to weave these in the student-centered learning.

Emphasis Implementation and Consolidation

Transfer of training skills is more affected by the problem of implementation (schedules, communication, providing required materials, meeting the objectives of the training, undertaking activities as suggested, using the suggested materials and so on). These practices can not be improved merely by changing the curriculum or the training materials. It is essential to emphasize implementation that is planned and to provide time for the consolidation of the efforts.

Monitor the Utilization

It should be mandatory for the teachers to use skills learned in the training in their classrooms. If materials and support are required these also need to be provided. But it should be an integral part of the training to monitor utilization of training skills. Frequent monitoring rather than frequent training should receive priority in the present context. One mechanism for the follow-up/monitoring can be -- trainer(s) follow-up their trainees in the first year after the training to provide on the spot support, and in the second year RC/DEO/Center monitor utilization of the training skills.

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APPENDIX

Appendix 1 Teaching skills suggested in the manual

English

- Use real objects/models/pictures/flashcards
- Teach words (not spelling), letter sound (not the name and sequential order of the letter)
- Relate the word and letter sound with object/action/situation
- Model the exercise/drill
- Point
- Use gesture
- Act/mime
- Demonstrate
- Refer to self defining context/situation
- Create life like (real) situation
- Make queries (Q/A)
- Use rhymes/chants
- Tell story
- Use conversation/discussion
- Give instruction & direction
- Demonstrate correct movement of hand
- State the rules
- Organize games
- Elicit
- Use drill with emphasis on pair work
- Use role play
- Use match-stick figure/draw on BB
- Write on BB
- Use cassette/player (audio aid)
- Display
- Use fill in the gaps (for letter & word spelling practice).

Mathematics

- Use concrete and semi-concrete materials
- Use locally available materials
- Use warming up activities
- Use fun-full games and activities with instructional value.
- State the rules
- Demonstrate

- Organize quiz
- Use role play
- Give examples
- Elicit
- Organize discussion
- Give group work
- Give practical work/assignment
- Use drill
- Use songs
- Use true and false exercise
- Observe
- Explain
- Compare/ask to compare
- Declare the winner/give reward (prize)
- Use Q/A
 - ask question and seek answer
 - question/answer in student's pair
- Ask to make guesses (अन्दाज गर्न लगाउने)
- Use induction method (observe/do and come to a conclusion)

Appendix 2
List of the sample schools

Jhapa

Bhanu Primary School, Bhadrapur
Bhagawati Primary School, Chandragadi
Birendra Secondary School, Chandragadi

Morang

Bal Lower Secondary School, Rani, Biratnagar
Raghupati Primary School, Biratnagar - 22
Sushikshya Nikunj Primary School, Hatkhola
Valmiki Secondary Boarding School, Madhumara

Rasuwa

Bhimali Primary School, Bhimali
Saraswati Primary School, Thade
Dhunche Secondary School, Dhunche
Bhimsen Primary School, Thule Bharkhu

Chitwan

Malpur Lower Secondary School, Malpur
Dibyajyoti Secondary School, Divyanagar

Kaski

Chandika Primary School, Batulechour, Ambare
Mahendra Primary School, Nagdada
Mahendra Lower Secondary School, Nayabazar, Pokhara
Alpha Secondary Boarding School, Lamachour

Dadeldhura

Ghatal Secondary School, Nuwakiot
Janjyoti Primary School, Adityapur
Mastabajinath Primary School, Dandabari

Appendix 3 MTOT participants' background

Profession

	Total No. of respondents	Secondary teacher	Section Officer	Supervisor	Resource person
MTOT-English	23	10	1	4	8
MTOT-Maths	20	6	2	5	7

Educational Qualification

	M.Ed.	M.A.B.Ed	M.Sc.	B.Ed.	B.A.	B.Sc.
MTOT-English	4	1	-	17	1	-
MTOT-Maths	3	1	1	13	-	2

Major subjects

	Eng.+Adm. & Sup.	English	Maths+Adm.& Sup.	Maths+Curr.& Evalu.	Maths	Science
MTOT-English	3	20	-	-	-	-
MTOT-Maths	-	-	2	1	16	1

Appendix 4

Transfer of the Training Skills in the Classroom

During the first phase of this study, classroom delivery of the teachers who had any of the modular or whole school or 10 months' package training was observed. Analysis of the observed classes was made by comparing classroom delivery with respect to the related topics/suggested activities of training manual of the training the concerned teacher had received. Where appropriate, findings from the classroom observation form the second phase are also mentioned.

Training skills and classroom delivery

Skills from the training manual (10 months' package, modular and whole school approach) based on which the teacher had received training were cross-matched with classroom delivery of the teacher. But it was found difficult to cross match, as matching became more subjective. Most of the skills could be related to be useful to the classroom delivery or most of the content in the training manual could be stated as to be vague as these do not specifically relate to the lesson plan that could be covered in a period. Therefore a general description only is given in this section.

The methods covered in the training manuals of mathematics subject are induction, deduction, question answer, discussion, demonstration, drill, CSA -- concrete, semi-concrete, and abstract, concept, development, games, problem solving. These methods are also suggested in the teacher guides. A comparison of classroom delivery with the teacher's guide indicates that these methods were not frequently and properly used during the classroom delivery. Out of 100 suggested activities only 35 activities were carried out as suggested in the TG. Similarly, training manuals suggested real objects, multiplication fact table, flashcard, number card, model, picture, drawing, instrument box etc. in 31 cases, but suggested materials were used in 8 (26%) cases only. In one of the mathematics classes observed the suggestion in TG was group work. In the first package of the 10 months' training of which the teacher had completed, group formation techniques and group work are covered adequately. When asked why she was not able to use group work as suggested in TG, she innocently begged the question, "How to form a group?" She recalls perhaps she was taught about group work with a number of other techniques, games, activities, but she was certain that group work activity was not demonstrated and practiced at the training.

A most glaring deviation was observed in the case of English language subject. TB and TG suggest activities such as discussion, question answer, games, chants, oral exercise in pair, directed listening, silent reading, written exercise, extension activities etc. These methods/activities are covered in the training manuals (recurrent and 10 months package). Out of 34 activities suggested related to 22 classes observed, 18 of the suggested activities were not followed. Instead chorus repetition after teacher (6 cases), or after a leading student (2 cases), question answer memorization (10 cases), translation into Nepali (4 cases) or paraphrasing into Nepali (4 cases), word meaning with spelling (7 cases) were carried out.

Similar is the case with other subjects. Basically training is related to providing teacher with skill and practice on teacher's preparation (lesson plan, materials collection), teaching methods, instructional materials use/construction, and evaluation.

Some of the specific aspects of the teacher training related to classroom delivery are described in the subsequent paragraphs.

Yearly Plan and Daily Routine

In the schools visited, a daily class routine was found pasted on the wall of the office-room. In 4 of the cases, the same daily routine of the last year was used because there was no change in the subjects to be taught and the timetable. In three of the visited schools, yearly school plan existed in the form major activities to be undertaken. During individual interaction with the teachers, some of them said that they made a tentative plan as regards how much to cover tri-monthly, but those plans were not documented and in some cases division was made from within the content list of the textbook. One of the RCs of Kaski district has provided a diary to each teacher. Teachers are required to note down what they have taught each day in a lesson plan format.

Classroom Organization

Classroom organization has been one of the major aspects covered in 10 month training and 10 day modular training. Structure of classroom organization (subject teaching, grade teaching, multi-grade teaching) and classroom sitting arrangement are among the major components covered in those trainings. In the first phase of this study, subject teaching arrangement has been found mostly (80%) used. Subject teaching classroom organization was used in grades 4 and 5 in the sample schools. At grades 1-3, there were grade teaching (12%) and multi-grade teaching (8%) as well. It is noteworthy that the average number of teacher was about 7 teachers per school and only in two schools out of 16 schools, there was less number of teachers than the number of grades. In total, student teacher ratio was 34:1. This scenario indicates an environment of the school where grade teaching could be organized. In the training, grade teaching is emphasized for its effective organization. (Class organization and school management, p. 32, DEC, 2058). In Morang grade teaching was totally absent in the observed 5 schools and in Rasuwa only in one of the observed schools grade teaching was adopted. Grade-wise, grade teaching has been adopted mostly in grade one. Not much change was observed during the field visit in the second phase. Rather grade teachers were found complaining of the monotonous nature of the grade teaching and a feeling of inferiority that they had to teach lower grades.

"Class organization and school management" (third package) and modular training "Grade Teaching" and "Multi-grade Teaching" explain various sitting arrangements (U-shape, V-shape, semi-circular, circular), space management. Except in two classrooms, among the 16 schools observed, row type of sitting arrangement was used. In addition, in most of the cases, rows were divided into two columns -- to seat in one-column girls and in the other boys. Though other types of sitting arrangement would have been difficult due to the narrow space and crowded class, the other type of sitting arrangement was not used even where there was enough space in the classroom. This was the case in the observed 16 schools in the first phase as well as in 20 schools visited in the second phase.

Creating Conducive Classroom Environment

Managing classroom space for effective sitting arrangement and display (Grade teaching, p. 12-14), displaying and keeping handy instructional materials like flashcard, real objects, charts, diagrams (Whole School Approach, p.66-67, Foundations of Education, first package, p.115) have been discussed in the training manuals. In all the classes, blackboards were found hung up on the wall. In more than 50% of the classes there were students' attendance board, in about half of the classes there were pocket boards and in a few of them there were some pictures and charts as well. But the display was very poor and their use ineffective in most of the

cases. In two cases the list of alphabet (English and Nepali), numbers (1-50, 1-100), multiplication tables pasted on the walls of the classroom were actually used for chorus repetition.

Use of Blackboard

Blackboards, mostly embedded on the wall and in some cases made of wooden, frame were found in all the classes of the observed schools. Use of blackboard is one of the aspects most extensively covered in the training manuals -- foundations of education, second package, subject-wise packages like -- Nepali language teaching, English language teaching, Mathematics; modular like Instructional Materials, Learning Process and Evaluation, Grade Teaching, Multi-grade Teaching, and Whole School Approach.

Mostly blackboard was used for writing the subject, topics and the date. And in most of the cases these were only things written on the blackboard throughout the classes. Training packages emphasized that a lot of space should not be used in writing the subject, period, date, grade etc. (Instructional Material Training Booklet for Trainer, p. 36, 2057, DOE). Whereas in the same booklet on page 3 suggestion is, "unnecessary things such as grade, date, period, subject should not be written on the blackboard. If it is done so not more than 5-10% of space should be used. In the cases (25%) where blackboards were found being used, they were used for,

- Solving mathematical problems -- mostly by the teacher, sometimes by students.
- Giving mathematical problems to the students
- Writing word-meaning -- english language, nepali language.
- Writing letters, words, sentences -- especially in the lower grades.
- Copying text from the tb for the students who had not received tb.
- Writing question and answer for students to copy and memorize.
- Drawing pictures (three case).

Though the quality in the use of blackboard was unsatisfactory in general, but the quality of the blackboard as a teaching material was good in most cases. In two cases, blackboards were found defaced and not usable and in three cases the spatial location of the blackboard was found to be not appropriate. It was placed so high that teacher barely reaches the middle of it and students can reach the lower bottom at the most. Suggestion to make blackboard around the lower part of the wall was not found being taken in the observed school. In one school a small blackboard was made at the bottom, below the classroom blackboard. Almost all students had to share the classroom blackboard with the teacher.

Instructional Materials

Construction and use of instructional materials use and construction is one of the major components in the teacher training of DOE. Blackboard use also falls under instructional materials. Besides blackboard, various types of instructional materials are included in the training,

- Real objects - stones, pebbles, things around classroom & environment, plants,
- Match stick figures, drawing
- Cards, charts, models (flashcard, number card, pocket chart, charts, models)
- Globe, map, poster, pictures

- Children book, local book
- Flatin board,
- Figures of faces, various pictures, cutouts (WSA)
- Paper work, colors
- Playing materials
- Musical instruments
- Mathematical instruments
- Curricular materials
- Audio-visual

Training programmes widely cover use and construction of instructional materials for effective classroom delivery. Pictorial, printed materials are also provided in WSA packages as well. In the TGs, specific materials are suggested to be used while covering specific lesson/activity. One teacher was found using pebbles to provide students additive function of multiplication, three teachers using mathematical instruments, a few using map, globes, pictures and about 20% using flashcard, number card. Otherwise, reading textbook content and doing textbook exercise was dominating.

In three schools, the flannel cloth pocket board made during the training period was found lying abandoned in one corner -- the outside surface was covered with dust and the inner layer was clean and new. In some cases there were cloth pocket board hung on the classroom wall, but the pockets were empty.

Group Formation Techniques

In the training manuals various types of group formation (age ability, interest, sex) are described and their use explained. In the TGs also (see subject-wise analysis in chapter III) group formation for classroom discussion, group work/activities were found being suggested. But teachers were found not considering any aspects or observing any utility while forming groups. Usually while teachers formed groups, they made a bench, or a row or a column as a group. But activities (such as read content paragraph, read poem, do exercise, solve problem) provided were not really a group work. When presentations (answer to the question, reciting poem) were done, these were got done by individual student.

There is the possibility of interaction when there is a bench as group or two benches with suitable sitting arrangement as a group. It is very difficult, if not impossible, for group interaction by the passage or a column with 3/4 benches or students in column.

Student Attendance Board

Students attendance board are used to motivate students to come to the school regularly. Out of 16 schools visited, only in one school, student attendance board was found used properly. In most of the schools of Kaski district, attendance board could be seen put up on the wall of the classroom, but they were lying in an unused form for a long time or the roll number column was missing in it. In the visited schools of Morang district, attendance board or mostly was stacked in the office room or was totally missing (either attendance board or the columns) or was not used. During visiting the same schools covered in the first phase, it was found that one school has started to record students attendance on the board properly and

another school has hung up the abandoned out board on the wall, but it was not using it properly.

Testing

During classroom delivery observation, classroom questioning was noted down in broader categories and the test papers used in some of the schools were also collected. As paraphrasing and reading textbook content was the dominant method of teaching, rhetorical questions and memory level questions were used in large measures. Questions relating to the experiences of students, and providing motivation were very few. Leading questions asking and providing immediate reinforcement was also found to have been practiced less. Training programmes also seemed not to have been covered much on classroom questions.

As for the written test, it was found that in most cases question papers (for terminal and final) were developed RC- wise or by a group of schools. Some of the test items were found appropriate with respect to the curriculum and the grade-level. In the written test also rote memory questions and questions from textbook exercises were found to have been used in greater proportion.

Appendix 5
Description of classroom delivery - same lesson repeated thrice

First day class	Second day - teacher's own preparation	Third day - combined preparation
<ul style="list-style-type: none"> • Demonstrated picture cards • Asked questions to students demonstrating different picture cards • 'Who is he/she?' • 'What does he/she do?' • Question asked only to three students no prior modeling • Language structure suggested by TG is: 'What is he/she?' • 'What does he/she do?' • Provided reinforcement wherever necessary. • Teacher used repetition drill for whole class, girls group (one column) and boys group (another column) and individual. • He/she is a chemist/farmer/baker. • He/she sells medicine/ grows crops/prepares bread and cake etc. • Asks a boy and a girl in turn to conduct Q/A drill for the whole class • 'Who is he/she?' • 'What does he/she do?' • Teacher holds two picture cards one by one and asks students to write Q/A about each picture. • Teacher calls the students (4) to write on BB copying from their copy (only one part) • Asks the students to correct the mistake in his copy (when he finds grammatical mistake in the written work of a student on BB. But teacher doesnot correct it on BB) • Gives homework from TB. 	<ul style="list-style-type: none"> • Writes on BB • New vocabulary • A hairdresser grows crop • A farmer sells medicine • A chemist makes bread & cake • A baker cuts hair • conducts repetition drill for vocabulary practice (to introduce new vocabulary • h-a-i-r (hair) • d-r-e-s-s-e-r (dresser) • A hairdresser • Asked students to read the words pointed by the teacher. • Demonstrate different picture cards and describes (modeling) • This is a farmer. • A farmer/ he grows crops. • This is a hairdresser etc. • A hairdresser/ he/she cuts hair. • Conducts repetition drill in chorus. • This is a farmer etc. • A farmer/He /She grows crops. • Class work- match the words written on BB. • Conducts chain drill. (students hold the cards and ask question and answers) 	<ul style="list-style-type: none"> • Demonstrate words cards (Introduction of new VDC) and models by saying the words. • Teacher holds the word cards in turn • Conducts repetition drill (chorus and individual) • Write those four words on BB and asks children to read the word pointed by him • Demonstrates words cards and says • 'a chemist' • immediately turns the cards and says, 'sells medicine' • It is written on the backside relating job and work. • Conducts repetition drill (chorus and individual) • Demonstrates picture cards and says (modeling) • 'This is a baker.' • A baker/he/she prepares bread and cakes • Conducts repetition drill (chorus group individual) • Models Q/A drill • 'What is he/she?' • 'What does he/she do?' • Conducts chain drill and pair drill with the help of picture cards. • Organized role play • A girl plays the role of a hairdresser and a boy that of a chemist. • Conducts Q/A drill in pair • Models new Q/A drill like • What are you? • I am..... • What do you do? • I..... • and conducts pair drill between role player and other students • Relates the lesson to the students themselves and their environment by modeling Q/A drill like • "What is your father/mother/brother/uncle/sister/ etc?"

		<ul style="list-style-type: none"> ● He/she is a ● "What are you?" ● "I am a student" ● "What do you do?" ● "I study in a school." ● Students perform pair drill with the teacher as well as the observer. ● Home work from TB given. ● Students enjoyed a lot, participated actively. They liked the role-play very interesting. ● Even the teacher admitted that the class was more lively and systematic. ● Students were found asking each other questions like, 'What are you?' etc.
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Appendix 6

Teacher training in the experience of a teacher

Case -- Training helps the teacher in classroom delivery

She is one of the teachers who have used skills learned from the training in her classroom delivery. Strength observed in her three classes observed were,

- Used English as the medium in English subject class.
- Provided instruction in Nepali or translated English words into Nepali as the last resort only when students could not understand the instruction after it was repeated a couple of times.
- Introduced day's lesson -- what they were going to learn/do.
- Drew pictures (on the blackboard).
- Asked question, communicated with students individually as well as in group.
- Asked question to the group as well directed question to individual students as well.
- Provided feedback, encouraged students.
- Checked class work of the students.
- Provided more time and effort to the weaker students.

This was the beginning period of the session and classes were thus not running smoothly. Students were still to receive their textbook. The teacher was able to demonstrate/prove that she consulted the teacher guide and used instructional materials such as flashcard, drawing, real materials. She found pointing out/run to the board, rhyme/chant, pair work/group work, helpful in her classroom delivery. She has problems/difficulties in utilizing guessing game and to follow the logo as suggested in the TG.

She had first 2.5 months package training in 1994 in the neighboring district. She had this opportunity for the training as all other teachers were already trained at that time in her school. She passed her SLC in 1985, joined the school in 1988 and became permanent teacher in 1991. She had two children she had to take care of when she had to go for the training. It was her husband who encouraged her to go for the training and took care of the home and children in her absence.

While coming to the school after this training, she had the feeling that she had accomplished something. That was the feeling that she was also trained like her colleagues, she had the skills to deliver classes in a better way, and students would enjoy her classes. First day in the school returning from her first training she remembered her sharing her experiences, what was the training like, what happened etc, in the training. Her first class in the school was enthralling. She found a tremendous change in her class while she delivered her class by using the skills she has learned during the training. It was more than she had expected. She remembered the class was grade 2 mathematics. She used pebbles to give the concept of the additive nature for multiplication. Just use of the pebbles made quiet a difference -- students enjoyed it, learned easily and quicker, all the students were engaged. She reflected she would have made students to memorize multiplication table instead if she would not have been in the training. This was her first and last mathematics class in the school. Though the first package did not include English

language subject, she was comfortable to use skills learned during the training for other subjects -- Nepali, Social Studies, Mathematics.

She had attended three more training of short duration -- 10 days textbook introduction, 10 days instructional materials construction and 10 days whole school.

She mentioned what lessons she had learned from the training,

- Trainer emphasized to use English language while teaching English subject. During the training trainer used English language and also made the trainees use English language. This demonstrated her that to communicate in English language medium might be difficult in the beginning, but after some time communicating in English would be easier after repeated use. After this training, she communicated in English with the students and yes then students could communicate in simple English with her in the classroom.
- In her first training (first package training), one of the trainers was of lazy type. Trainees were not motivated, interest was lacking, and there was lack of practice and activity in that class. But all other trainers were good. It was a lesson for her that if she would be lazy, students will also be less motivated in learning. That trainer flashes back in her memory and reminds her not to be lazy.
- Whatever the background of the students and support from the home, much can be done by the teacher. She confidently told 50% of her students are doing better in her subject and 50% fine. With support from household these 50% would have been able to do much better. She also felt she has to pay more attention to these students. Students should not be blamed for teachers' failure.

Appendix 7

Analysis of training manual

English language training manual

Training manuals of 10 days English language manual and Mathematics subject manual were analyzed with the help of subject experts. The following strengths were found in the training manual of the English language:

- The package focuses on the enforcement/realization of the effective use of methods and skills suggested in TG in classroom teaching/learning as it heavily emphasizes rehearsal teaching with suggested approach, methods and skills as provided in TB and TG.
- Clear instructions are given as to how the trainer should conduct himself/herself in the training. It aims to give the participants an experience of the pleasure of learning in an active classroom as given in the important notes for trainers in the beginning.
- It tells how to use the TB and TG properly. Related lessons/pages of the TB/TG are appropriately referred to in the manual.
- It provides practice in lesson preparation and presentation.
- It lays emphasis on the importance of peer work in language teaching.
- It helps the teachers to develop a positive attitude towards the approach and methods as recommended in the curriculum of the English subject. It provides reasons for why or why not to using various techniques and methods in teaching the English language.
- It aims to provide sufficient practice of lesson delivery with emphasis on methods of lesson opening, presentation and practice.
- It helps make the teachers/participants understand the problems faced by primary level children in learning English as a beginner.
- It helps the teacher experience, learn and understand different activities described in TB and TG and know the purpose behind some of them.
- It provides some additional activities (games) not included in TB and TG.
- Teachers take part in the rehearsal class through which they understand the importance of their role in the classroom and the problems of the students. They can realize their weaknesses and find ways for improvement.
- Activity-wise time division for each session and the list of required training materials has been mentioned in the package.

Shortcomings

The following shortcomings were found in the training manual of the English language:

- Some English sounds are not there in Nepali. How are they different? How to produce them? etc. are not mentioned in the manual. Neither supplementary materials are provided or referred to (page 4).
- Some instructions and terms are not clear e.g. "Do with one teacher only doing line 2, everyone doing lines 1,3,4"; "Do quietly (chant), but the last line loudly" (page 9). Facilitators as well as participants were found confused in

these places. There are also vague terms such as "emotional responses" not understandable for the facilitators and participants (page 17).

- The package lacks clear explanations some places: e.g. in answer to
- 'What are these?' the sentence given is
- 'They are cats' In the absence of an explanation the change of 'these' into they will confuse the learners. Similarly, the question 'what's that?' gets the answer as 'that's a window' and in the same breath, the answer to 'what's that?' is given as 'it's a door, without, giving any explanation for the change.
- The training manual and TG emphasizes the sound of a letter to be introduced first, not the name and order of the letters as in the traditional approach. But there are many sounds that go with some of the letters, which create confusion while teaching the children. No clear-cut advice regarding this point is given in the package.
- 'Lady Bird' book has been mentioned at different places in the package but neither the facilitator has used the book nor the participants had a copy of the book.
- Typical problems faced by English language teacher in a real classroom situation are not mentioned e.g. frequent mistakes made by beginners in reading and writing b and d, p and q, t and f, and in writing. Teachers must be told clearly about the role played by aspiration and the difference made by plosive and fricative sounds of f and v, and b the dental and retroflex sound of t and d.
- The text written bold at the beginning of every session creates confusion whether it is the list of objectives or the description of the activities related to the session. Unclear statements like 'teachers work out explanations and reasons for the major new ways, of teaching which they will learn' and 'teachers learn o,c,t and a chant' need to be clarified. Sentences like 'teachers are directed toward', 'they will realize.....', 'teachers will understand, 'make the objectives vague. Statements like 'they will practice, 'a group of them teach an actual lesson, 'They will prepare lesson', 'They will share in discussing the effort, etc make the text a description of the activities, not a specific learning objective that can be measured.
- The package emphasizes the use of chants but no explanation about it (difference between chants, rhymes & songs) mentioned.
- No objective behind the games & activities is suggested in the package mentioned.
- The manual lacks the list of preparatory work to be done by the participants for each of the next day sessions. The table in the beginning of the manual can be improved to contain the topic and activities to be covered by the facilitator and the preparation to be done by the participants for each session/day.
- Nothing has been mentioned about giving dictation work and the use of punctuation marks (it is incorporated in the curriculum).

Mathematics subject training manual

Strengths

- The package has adopted 'concrete to semi-concrete to abstract' process in teaching mathematics at the primary level.

- It emphasizes teaching mathematics through the development of concepts. It is helpful to encourage learning and doing by understanding.
- It contains a number of useful teaching skills appropriate for primary level teaching as well as some training skills for training delivery.
- It contains a number of games and activities with instructional value which help the teacher to present mathematics teaching-learning in a joyful way.
- It helps the teacher prepare a number of teaching aids from locally available materials.
- Objectives of each session are clearly mentioned which are helpful in conducting the training.
- A list of essential training materials and activities with the roles of facilitator and participants mentioned for each session.
- The package tries to elicit the classroom implications of some of the teaching aids, games and activities (without mentioning the possible answers in some cases). It helps, the teachers internalize/explore the objective served by the games, activities and teaching aids.
- Some topics such as error analysis and remedial teaching related to word problems are useful ones. It provides appropriate skills to the teachers to solve the difficulty faced by students in doing word problems.
- The package in some cases tries to relate the relevance of the activities/games used for teaching one topic to other topics of course with some modifications (if necessary) to be made for that purpose. It tries to persuade the teachers to explore/design other appropriate activities/games to serve the purpose.

Shortcomings

- Reference to, TB & TG is not mentioned. In very few cases, the facilitator referred to TB during training delivery but it is missing from the package.
- Activity-wise time division is made only for the first four sessions.
- Many issues raised during the training delivery are not included in the package, though it was in development phase (the package was being tested during the training) e.g. confusion about drawing bar graph, confusion about the sequence of teaching the concepts of types and measurement of angles etc.
- There is no uniformity in presentation of the content. Presentations of first four sessions are better. In many cases the possible answers/outcomes are not mentioned.
- Mathematical concept and operation of higher order not included in the package. e.g. concept of numbers of 3 and more- digits, addition, subtraction of such numbers, multiplication and division of 3 and more-digit numbers by 2 and 3 digit numbers, mixed problems containing addition, subtraction, multiplication and division, word problems of higher order. These are related to grades 4 and 5. Therefore existing package adequately caters curriculum of grades 1 to 3, but grades 4 and 5 curriculum objectives are not adequately covered in the training manual of mathematics.

- Important topics are not included in the package e.g. set, percentage and unitary method, currency, time, conversion of units, use and removal of brackets, BODMAS rule etc.
- Some instructions are not clear. They are either short or symbolic or confusing e.g. dart game, (page 3) Bingo game (page 21), deriving formula for calculating volume of a cuboid (page 68 participants' activity), finding prime factors by division method etc.
- Use of songs as instructional skill is negligible. Primary age children naturally enjoy songs and remember them easily and for long.
- The package is silent about its assumptions and lacks instructions to the trainer for effective delivery of the training.
- There is lack of clarity about micro teaching/training practice.
- Trainers try to be effective. They were active, have good knowledge of preparation, presentation & practice. They delivered the training in a democratic way, used different teaching materials, provided relevant examples and performed the activities in accordance with the package and succeeded in transferring the idea of joyful teaching/learning essential for effective teaching/learning at the primary level.