

**Educational
Support to
Children of
Underserved
Populations
(ESCUP)**

OCTOBER 2006



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Three-Day Refresher Training for Community Teachers



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ESCUP
3 Day Refresher Training for Community Teachers

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Day 1 Introduction	Timing
1.1 Welcome and introduction to the 3 day workshop program	15 mins
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1.3 Plans for CT support in ESCUP for 2006-2007	10 mins
1.4 What CTs have said they want in the 3 day training ... (1) Lesson planning (2) Classroom management (3) Teaching and learning materials production (4) Materials for teaching and learning	15 mins
Theme 1 : Planning, teaching/learning, reflecting (as a "cycle")	
1.5 Lesson planning ... the elements of lesson planning and the MoEYS model	90 mins
1.6 Analyzing small group learning activities	90 mins
1.7 Planning cooperative learning activities for small groups	90 mins
1.8 Assessment of children	60 mins
TOTAL	6h.30
Day 2 Theme 2 : Questioning skills and critical thinking	
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2.2 What is a taxonomy ?	60 mins
2.3 Classification (taxonomy) of questions	60 mins
2.4 Analyzing questions - Participants' tasks	60 mins
2.5 Writing higher level questions - Participants' task	60 mins
2.6 Learning tasks to help students think critically : 1. Student research	60 mins
2.7 Learning tasks to help students think critically : 2. Learning games	60 mins
TOTAL	6h.30
Day 3 Theme 3 : Developing language skills	
3.1 Creating a rich classroom environment	20 mins
3.2 Language across the curriculum ... children learning language, learning about language, learning through language in all subjects	15 mins
3.3 Using posters and pictures - developing listening and speaking skills	45 mins
3.4 Using maps - developing listening and speaking skills	45 mins
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Distribution of materials packages	20 mins
TOTAL	6h.05

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3 Day Refresher Training for Community Teachers

Day 1 Introduction THEME 1 Planning, teaching/learning, reflecting (Reflective Teaching)	
Session 1.1 Welcome and introduction to the 3 day workshop program MATERIALS : Contents of workshop - sessions titles and times (HANDOUT 1) Facilitator welcomes the participants and introduces them to the 3 day workshop program. HANDOUT 1 - Workshop Objectives, session titles and timetable	15 mins
Session 1.2 Current status of the ESCUP Project Facilitator talks to participants about the current status of the ESCUP Project, funding till April 2007, hopes of extension, return of students from PTTs for 2007-2008, likelihood of continuing teacher shortages, natural wastage (sickness, retirements etc), expansion of high schools...	20 mins
Session 1.3 Forward plans for CTs Facilitator talks about plans for CT support for 2006-2007 - broad structure, 3 day training and follow up about once every two months, so November, January, March, <i>May, July</i> ... CT monthly salaries to continue till end of 2006-2007 school year (last payment in July 2007).	10 mins
Session 1.4 What CTs have said they want in the 3 Day Workshop Facilitator summarizes the outcomes of the final CT Monthly Meetings from June and July 2006. Facilitator summarizes what CTs have said they want in the 3 day training ... the main things Lesson planning Classroom management Teaching and learning materials production Materials for teaching and learning Facilitator mentions other factors which have influenced the choice of content for the workshop ... must keep content fairly general because CTs teach at all levels and we can't spend too long on activities only suitable for one or two specific grades.	15 mins
THEME 1 Planning, teaching/learning, reflecting (Reflective Teaching)	
Session 1.5 Elements in a lesson - analyzing the MoEYS model lesson plan MATERIALS : HANDOUT 2 the lesson plan using MoEYS model stuck on poster paper (2) ESCUP annotated, labeled analysis of the MoEYS plan	90 mins

DAY 1 continued (Session 1.5)

Facilitator elicits from participants the elements of a good lesson plan and writes them on a chart. Facilitator explains MoEYS policy on lesson planning - that it is acceptable to use any format for planning which includes the main elements (TGL 1). Facilitator says that some people within the MoEYS still insist on teachers using the standard lesson plan. Facilitator gives **HANDOUT 2** to Participants of a lesson planned in the standard MoEYS model (stuck on a big piece of poster paper) and asks them to analyze it in terms of the elements listed above using arrows and labels. Facilitator asks Participants to form small groups to complete analysis. When Participants are finished, one group shows their review and others agree/disagree. Facilitator adds any other comments by comparing participants' reviews with ESCUP Trainers' review.

Facilitator explains that CTs will have opportunities during the year, in follow up two-monthly meetings, to produce example of lesson plans using the MoEYS model.

Facilitator adds that writing plans like the MoEYS model is good practice but most teachers don't have time to plan in such detail. Shorter, summarized plans or sketch plans can be used and this is the way most teachers plan lessons.

Session 1.6 Analyzing learning activities (especially group activities)

90 mins

MATERIALS : **HANDOUT 3** Case Studies of 3 lessons with learning activities with different levels of quality; **HANDOUT 4** model of a chart for participants to copy to record their analysis of case studies; **HANDOUT 5** (DIAGRAM/PHOTOS) of two small learning groups, one where children are working (individually) in a group and the second with children obviously working as a group.

Facilitator asks the participants : *Although all parts of the lesson plan are important, which part of the lesson do you think is the most important in terms of students' learning ?* Facilitator listens to participants' answers Facilitator reminds participants of old generalization about learning ... if I listen I remember 20%, if I see I remember 40% if I do I remember 80%. Most participants will agree that the **students own learning activity** is the key part for effective learning.

Facilitator says that he will hand out 3 case studies describing a lesson with a different learning activity in it. The task for participants is to read and discuss the three case studies and complete the chart handed out with them that will help analyze them. Facilitator says that the participants' task is to work in small groups to analyze the case studies in terms of

- (i) Does the task require simply remembering something or doing some deeper thinking
- (ii) Does the task require some group activity (discussion, agreement) to complete it ?
- (iii) Does the group have to produce something to complete the task
- (iv) Do you think the answer each group presents will be the same ? Give reasons for your answer ?
- (v) Rank the tasks in order of difficulty beginning with the one you think is easiest.

Participants read and discuss case studies and complete chart on big paper. Group representatives tape up posters and compare. Discuss differences of opinion. Facilitator summarizes. Facilitator takes care in talking about Question 5 (prioritize in order of difficulty) that teachers will be trying to challenge children in groups to THINK and show understanding, not just to remember how something was done. Facilitator asks participants ... what kind of thinking did the students have to do in Case Study 1, Case Study 2, Case Study 3 ... ? Facilitator writes down participants' responses and says that they will be used again tomorrow during the sessions on the taxonomy of questions and critical thinking.

Facilitator says : individual tasks are very useful for children to develop and practice skills and assess their own understanding. Group tasks are good because they also help children develop very useful skills of working together, explaining their ideas to each other and working as a team. As a teacher, whenever you include a good small group activity you are teaching the "A" in KSA.

DAY 1 continued (Session 1.6)	
But look at this diagram ... (Facilitator gives HANDOUT with two pictures - one of children doing individual tasks in a group and the other one with children obviously working together on a task). Facilitator asks ... <i>What's going on here ?</i> Expected answer : <i>the children in the first picture are in a group but doing their own work, the children in the second group are working as a group.</i>	
Session 1.7 Planning cooperative learning activities (tasks) for small groups	90 mins
MATERIALS : MoEYS TX for Grades 1-6, all four subjects; poster paper; markers	
Facilitator then tells participants to form Grade level groups. Grades 4, 5 and 6 can form one group if there are very small numbers of CTs. Each small group works from the four subject TX at their grade level. Participants choose one lesson from each book and devise a task for a small learning group related to that lesson. Participants present their work with references to the lesson chosen (Chapter title, page number etc.).	
Facilitator explains that the groups should try to write learning activities/task that : <ul style="list-style-type: none"> - involve students in discussion with each other - which result in a product which group members can present/explain - in which there can be a variety of outcomes - in which children have to use their own experiences/give their own ideas Groups should write summaries their four tasks on poster paper	
When they have completed their task, Grade level groups present their results. Other groups can ask questions or comment. Facilitator summarizes.	
If there is time the Facilitator may choose some of the learning activities and ask the participants to say what kind of thinking children have to do to complete it. This would be good preparation for activities on Day 2.	
Session 1.8 Assessing children's learning	90 mins
MATERIALS : HANDOUT 6 on Assessment	
Facilitator introduces topic of assessment of student learning by asking participants to recall the number of children not promoted/repeated (or promotion/repetition rate) from their class in 2005-2006. Facilitator asks : <i>What were the reasons for your decision that X% should repeat ?</i> Facilitator writes a list of participant's reasons on the board. (Expected answers : failed tests, absent a lot, cannot do this or that (count, read, write ...), doesn't join in, doesn't know how to behave, doesn't pay attention to work etc. etc.).	
Facilitator should also direct participants' attention to any reasons which obviously relate to "A" factors (behavioural issues, interest levels, concentration, curiosity etc.) as well as the more obvious "K" and "S" factors.	
Facilitator then asks follow up question : <i>What did you do to find out these things about the children ?</i> and then lists them on the board. When participants have given all their ideas, Facilitator writes a heading on the list of "Assessment Methods". Facilitator should check to see that participants have covered all the anticipated answers (below).	
<i>Anticipated answers : setting and marking a test, asking questions, observing behaviour, listening to them talking/explaining, looking at their written work, watching them cooperating with others ...</i>	
TOTAL 6.5 hours	

Day 2

THEME 2 - Questioning skills and critical thinking

Session 2.1 Questioning skills ... why do teachers use questions

30 mins

MATERIALS : strips of paper for writing down examples of questions

Facilitator uses questions to elicit from participants a summary of the main ideas about questioning covered in the 10 day CT training in 2005. These include

- *Why do teachers use questions ?* Expected answer : *to check understanding, to stimulate thinking, to get children to talk, to collect ideas and experiences from children etc.*
- *Are all questions the same ?* Expected answer : *No.* Facilitator follow up question : *Can you tell me the names of two common types of question ?* Expected answer : *Memory question and thinking question.*
- *What is the difference between a memory question and a thinking question ?* Expected answer : *memory questions can be answered by remembering something the teacher said, thinking questions make children think for themselves before giving the answer.*

Facilitator gives out two strips of paper and asks participants to work in pairs and write down one example of a memory question and one example of a thinking question.

Facilitator asks some of the Participants to volunteer to share their questions with the whole group. Other Participants say if they agree with the examples given and, if not, explain why.

Session 2.2 What is a Taxonomy

60 mins

MATERIALS : **HANDOUT 8** : Diagram of taxonomy of countries and animals

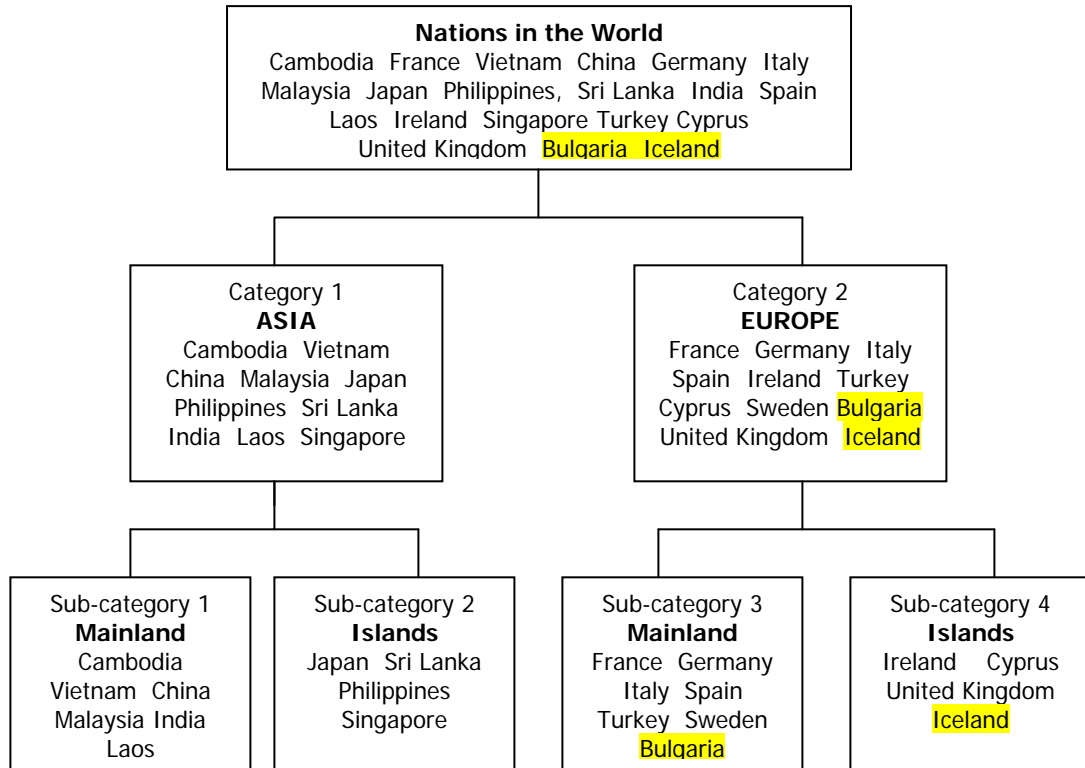
Maps of the world with countries in the task named/labeled in Khmer

Facilitator says that participants will now think more deeply about questioning. Facilitator then says that, first, s/he wants to introduce a new word - TAXONOMY.

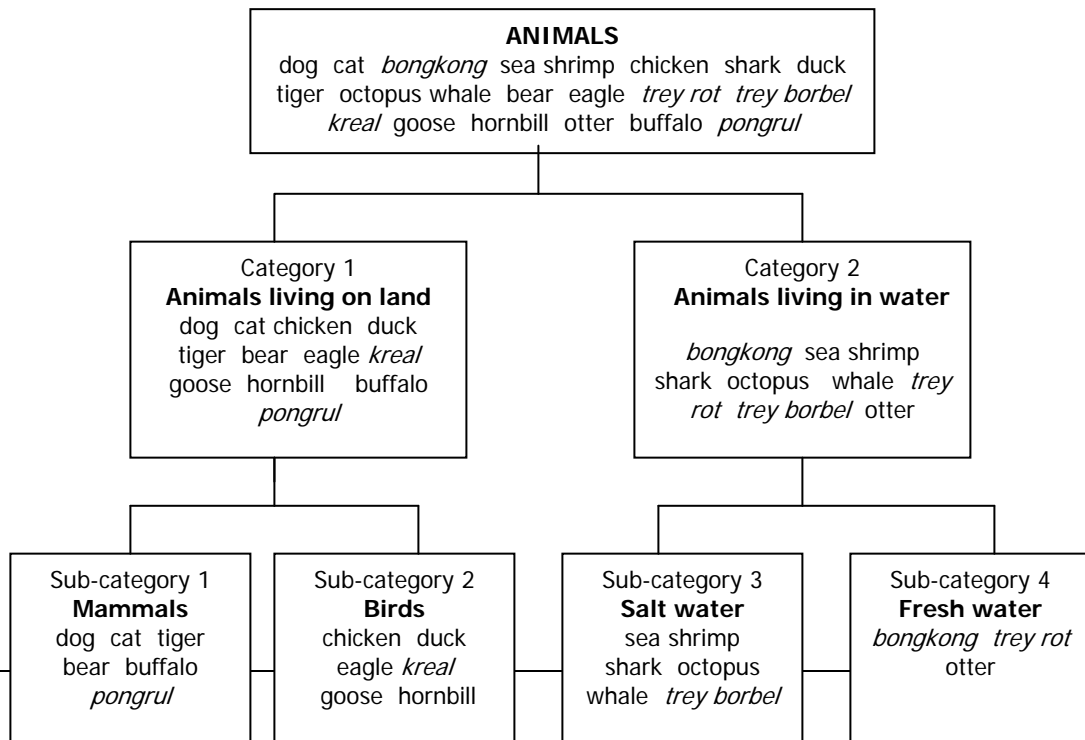
Facilitator says : taxonomy means a system of classification, of organizing things into categories. Different cultures and languages classify information in different ways. People make taxonomies of all different kinds of information. Perhaps the best know are western scientific taxonomies of animals and plants. Taxonomies often have complicated rules about why things are in this group or that group.

Facilitator says : to understand the idea of a taxonomy it's best to practice with some real examples. Below are two groups of things - Group 1 of countries in the world and Group 2 of animals. The Participants' task is to decide on how to divide up the things in the group into categories, give each category a name and agree on some rules for why things should be in different categories.

GROUP 1 Nations of the world



GROUP 2 Animals



Note : names in italics are anglicized versions of Khmer names

Facilitator asks Participants if they can think of how they might further divide the group of mammals into two or three other groups ? [Anticipated answers : wild/domestic, eat grass/eat meat.

Session 2.3 Classification (Taxonomy) of questions

60 mins

Materials : **HANDOUT 9** with text and questions

Chart showing three main categories of questions and characteristics

Facilitator says that Participants will now think more about classifying questions. We will take Memory questions as our first category but split Thinking questions into two groups - Understanding questions and Critical Thinking questions.

Old classification	Memory	Thinking	
New classification	Memory	Understanding	Critical thinking

Facilitator says that most systems of classification use more categories than this - many use six. The first category is memory questions, this is the most simple. Then there are five more categories of questioning, each one requiring more thinking, until reaching Level 6, Evaluation questions. The system of classifying questions into six levels, from the simplest (or lowest) to the most complicated (or highest) is called, in English, a Taxonomy of Questions.

Level	Group	Name of level	What is required
1	Memory	Memory	Recall some information
2	Understanding	Understanding	Explain what some information means
3	Critical thinking	Application	Apply something understood from one piece of information to another situation to produce an outcome
		Analysis	Think about one or more pieces of information and interpret them to make a new idea or reach a conclusion which goes beyond the information already given
		Synthesis	Take ideas from two or more pieces of separate information and combine together to make a new idea
		Evaluation	Weigh up many pieces of data to form an opinion or reach a conclusion and explain the reasons for doing so

Facilitator says that there is not enough time in the Workshop to took in depth at all six levels so we are going to talk about:

Category 1 Memory

Category 2 Understanding

Category 3 Critical Thinking ... we will then put the four highest levels into this Category

The level of Critical Thinking includes questions which are called Application, Analysis, Synthesis and Evaluation. They are different from Memory and Understanding questions because you need to do create a new idea or piece of information to answer them. As you think more about using questions

and try out in your classroom you will start to recognize the differences between the four levels of Critical Thinking questions ... at the start it is quite hard to do this so we won't be trying to do it in this Workshop because we don't have time to practice.

Facilitator says : to make this more clear we will work through an example together. Facilitator distributes **HANDOUT 9** (below).

Facilitator tells Participants to read the text and then look at the questions. Facilitator tells Participants to try and write answers to the questions. Facilitator tells Participants to talk to others around them to exchange ideas. Facilitator tells Participants not to write the question types just yet.

When Participants have written the answers the Facilitator asks the Participants what they have written for Question 1 and then Question 2. Facilitator asks : *How did you know the answers to those questions ?* Participants' expected answer : *The information was in the text - I remembered it or read it.* Facilitator says that is correct and asks Participants what kind of questions these were ? Expected answer : *Memory.*

The Facilitator asks Participants about the answers they have written for Questions 3, 4 and 6. Facilitator asks : *How did you know the answers to those questions ?* Participants' expected answer : *From the text.* Facilitator says : *That is correct but that the information is not stated in the text ... you had to understand the meaning of the text and then work out the answer.* Facilitator then asks Participants what kind of questions these were ? Expected answer : *Understanding.* Question 6 is also an Understanding question.

Then Facilitator asks Participants about the answers they have written for Questions 5 and 7. Facilitator asks : *How did you know the answers to those questions ?* Participants' expected answer : *They were my own ideas based on what was in the text.* Facilitator says : *So what did you have to do ?* Participants expected answer : *We had to read the text, understand it and then use our own ideas to answer the question.* Facilitator says : *OK, what category of question do you think Question 5 and 6 fit into ?* Expected answer : *Critical thinking.*

HANDOUT 9

A teacher reads this short text to his/her Grade 5 class or writes it on a piece of paper and gives it to small groups of children to read and discuss ...

Many motorbikes, cars and trucks are using a dusty section of road in front of my house where young children often play. Some of the vehicles are speeding. There is a serious risk of injury to a child. It is even possible that a child might be killed. I don't know how we can solve this problem.

As a teacher, what kind of questions could you ask children about this text ? Some examples are written below. Read and discuss each one with a partner and decide what type of question it is (memory, understanding or critical thinking) ...

Question	Answer/possible answer(s)	Type
1 What kind of traffic is using the road ?	<i>motorbikes, cars and trucks</i>	<i>Memory</i>
2 Where is the road ?	<i>in front of my house</i>	<i>Memory</i>
3 Who is most at risk of being injured ?	<i>children</i>	<i>Understanding</i>
4 Why are children at risk of being injured ?	<i>because they are playing near the road because its dusty and hard to see them because traffic is speeding</i>	<i>Understanding</i>
5 Why do you think children are playing near the road ?	<i>because children always play on the road because there is no other playground because their parents don't protect them</i>	<i>Critical thinking</i>

6	What is the writer most worried about ?	<i>children playing on the road being hurt cars speeding on the road</i>	<i>Understanding</i>
7	What do you think people living near the road could do to help prevent injury to children ?	<i>water or sweep the road to stop the dust stop big vehicles (trucks) using the road put up a sign saying "children playing" build a speed bump to slow traffic build a safe playground on vacant land build a fence</i>	<i>Critical thinking</i>

Facilitator says : here is a Chart which summarizes these three types of questions, Have a look at it, discuss with someone sitting next to you. We will use this chart in the next activity and you can practice classifying questions into the three categories yourself.

Question Type	To answer, someone must	Type of thinking/activity needed to answer
Memory	... be able to remember and say something they have already learned	Recall, remember,
Understanding	... be able to understand and explain in another way an idea or piece of information already given	Comprehend, explain,
Critical thinking be able to understand and create a new idea from existing ideas or information and be able to explain it ...	Compare, contrast, interpret, apply, deduce, analyze, hypothesize, evaluate, prioritize,

Session 2.4 Tasks to find out about the three categories of Questioning 60 mins

Materials : **HANDOUT 10** Examples of learning activities and questions for analysis in small groups
HANDOUT 11 for teachers on Questioning and critical thinking

Facilitator tells Participants that they will now split up into small groups. Their task is to read and discuss two descriptions of learning activities and a set of questions after each one. the first one is a Social Studies activity, the second in Mathematics. They have to agree on answers to the questions the Teacher is using in each learning activity and decide what category each question fits into - Memory, Understanding or Critical Thinking ...

Example 1

Teacher and students plant some very small sbay roeng flower seedlings in a garden outside the classroom. The class is divided into six small groups. The children in the group have to look after their plants (watering etc). The children observe the plants once a week and the Teacher asks them to describe what they can see. At first nothing happens then the plants come up. About a month after the children plant their seedlings the first yellow flowers appear. After two months one of the groups' flowers die. The day after the plant died the Teacher plans a lesson about the flowers and the garden. She gives the children six questions to discuss in their small group.

Question	Expected or possible answer(s)	Question type
What was the name of the plant ?	<i>Sbay roeung</i>	<i>Memory</i>
When did we plant the seedlings ?	<i>2 months ago</i>	<i>Memory</i>
What colour were the flowers ?	<i>Yellow</i>	<i>Memory</i>
What do plants need to grow ?	<i>Water, soil, sun, fertilizer</i>	<i>Understanding</i>
Why did some of the flowers die ?	<i>Too much water Too much sun</i>	<i>Critical thinking</i>

	<i>Not enough water</i> <i>Plant was old</i> <i>Plant had a disease</i>	
Why do you think some plants grew taller and had more flowers than other plants ?	<i>They were in better soil</i> <i>They were better quality plants (healthier)</i> <i>The children in the group looked after them well</i> <i>They got more sun</i>	<i>Critical thinking</i>

Children can answer the first three questions from Memory. The fourth question requires some understanding of the situation of growing plants. The last two questions require the children to use their understandings and experience to come up with their own new ideas to answer the questions.

Example 2 ...

A Teacher gives 20 matches to each of six small groups of children in his Grade 2 class. The Teacher then tells the children to work together to agree on answers to a number of questions. She then asks the questions one by one. The children listen and answer the questions one by one.

	Question	Answers	Question type
1	How many matches are there ?	20	Memory
2	$20 \div 5 = ?$	4	Memory
3	How many groups of five can you make with 20 matches ?	4	Understanding
4	$20 - 7 = ?$	13	Memory
5	A boy with 20 marbles has a hole in his pocket and when he gets to school, only 13 are left. How many did he lose on the way ?	7	Understanding
6	$20 \div 4 = ?$	5	Memory
7	A boy with 20 marbles gives exactly four marbles each to some his friends. How many of his friends get marbles ?	5	Understanding
8	What is the biggest square you can make ? Do you have any matches left over ?	<i>5 X 5 matches</i> <i>No</i>	<i>Critical thinking</i>
9	What is the longest rectangle you can make ? Can you make other, different rectangles using all 20 matches ?	<i>9 X 1 matches</i> <i>8 X 2 matches</i> <i>7 X 3 matches</i> <i>6 X 4 matches etc.</i>	<i>Critical thinking</i>

The Facilitator asks the participants after they answer each question what kind of question they thought it was.

Children can answer the first question by **counting**. Most children will be able to give answers to the sums straight away, although some might have to use matches to work them out. These are memory questions (Questions 2, 4 and 6). To get the answers to questions 3, 5 and 7, however, children need to listen to the teacher, **understand the meaning** and then model what was going on in the stories with their matches to get the answer. In the two critical thinking questions the children had to **listen, understand and apply their understanding** of what is a square and a rectangle in experimenting to get their answer.

When Participants have complete their tasks the Facilitator asks two groups to volunteer to present their findings ... one for Example 1 and one for Example 2. As the groups present the Facilitator asks

the other Participants if they agree with their conclusions.

Facilitator then distributes **HANDOUT 11** on Questioning and critical thinking

Session 2.5 Writing higher level questions

60 mins

MATERIALS : TX for different Grades

The Facilitator says that Participants will now practice writing questions in each of the three categories themselves based on lessons from the MoEYS Social Studies Textbook of the Grade of their class.

For the task Participants must first choose to think about one of the lessons described below. They should choose one of the lessons, discuss it and then write 6 questions which could be used in the lesson. These can be questions to use during the lesson or at the end. Two questions could be Memory level, two more Understanding level and two more Critical Thinking category. Participants should present their task on Newsprint paper in the following format ...

Lesson 1

Lesson 2

Lesson 3

Participants present their questions following the format below. Facilitator should ask Participants s a whole group if they agree that the questions written by the small groups fit the different categories. There is likely to be much discussion of the answers to this task.

Title of Lesson	
Memory Question 1	
Memory Question 2	
Understanding Question 1	
Understanding Question 2	
Critical Thinking Question 1	
Critical Thinking Question 1	

Session 2.6 Learning tasks to help students think critically**60 mins****1. Student research** (collecting evidence/data ... draw conclusions from it)MATERIALS : **HANDOUT 12** Examples of research tasks for Grades 1, 3 and 5

Facilitator says : Organizing simple research tasks for students is an excellent way of stimulating critical thinking. This is because the children are "creating" knowledge for themselves by the research they do, not simply hearing about or reading something.

Facilitator says : even though it sounds complicated and difficult, simple research can be done by children of all ages. Teachers should ask clear questions and provide the children with instructions (or framework) about the way to do the task. Once the children have done the research the Teacher should prepare a question or questions which help the children think more deeply about the information they have collected and try to draw conclusions from it.

Here are some examples ...

Grade	Research task	Initial question, process and critical thinking questions
1	Breakfast research	<p>What did we have for breakfast this morning ? Children organize in groups according to what they had for breakfast (rice, noodle, nothing etc). Group leaders count their groups. Children write numbers of each group on board. Teacher asks follow up questions ... most popular breakfast etc.</p> <p>What have we learned from our research ?</p> <ul style="list-style-type: none"> • Most children in the class eat left over rice in the morning • Some children eat noodles • Some children don't eat anything in the morning before school
3	Plant research	<p>What kind of flowering plants grow at our homes? For homework, all children bring to school one example of a flower and leaves from a plant at or near their house. At school they meet in groups to look at, count and name the different flowers members of their have brought in. Each group presents its results</p> <p>What have we learned from our research ?</p> <ul style="list-style-type: none"> • Most people grow hibiscus flowers • Most people like red or yellow flowers • We found two flowers they no-one could name
5	Traffic research	<p>How busy is the road outside our school gate ? Do trucks and cars slow down when passing the school ? If the school is on a busy road, children can count and classify by type (big trucks, small trucks, cars, motos, remorques, cow cart, bicycle etc.) passing by the school gate between 0700 and 0730. Children should also mark trucks and cars that were going fast</p>

		<p>What have we learned from our research ?</p> <ul style="list-style-type: none"> • X trucks and X cars passed during the 30 minutes • Some of the vehicles were traveling fast; half of the trucks and cars counted did not slow down outside the school • We should make new, bigger signs asking trucks and cars to slow down to make it safer for children to enter the school.
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Most research tasks involve three main steps

- DO** The children do something together
- TALK** Children talk about what they have found out and what it means
- RECORD/PRESENT** Children record their results in some way

Participants' Task : Work in small groups to devise simple research activities for children at Grades 2, 4 and 6 in the way I have just shown you for Grades 1, 3 and 5

Session 2.7 Learning tasks to help students think critically **60 mins**
Learning games to reinforce critical thinking ... classification
MATERIALS : Samples of games

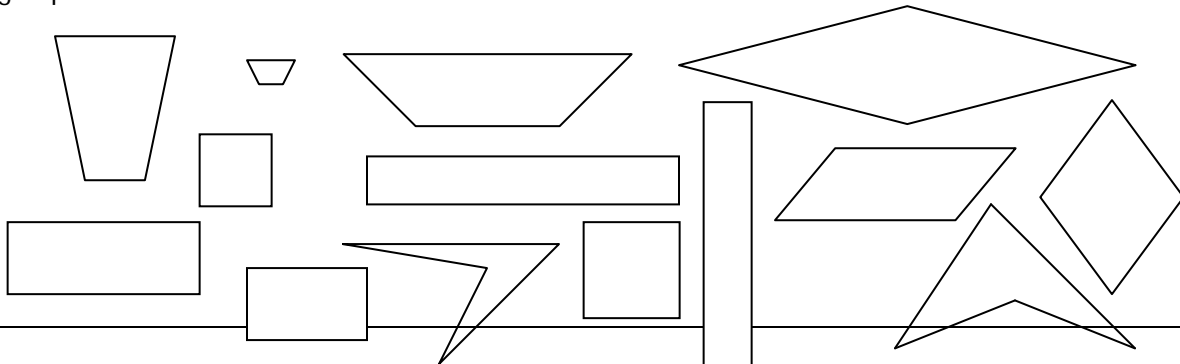
Facilitator says : Participants know about learning games from the CT training last year. Many CTs used learning games during the year. We already know that games are useful for re-inforcing learning and for making learning more enjoyable. This session is to emphasize that learning games are also a very good way of developing critical thinking.

Facilitator says : this morning we discussed "taxonomy", describing it as "a system of classification". One of the commonest categories of learning games is that of CLASSIFICATION. CTs now have more experience and ideas about classification. This year (2006-2007) ESCUP trainers will be working with you more on how CTs can create learning games to encourage children to think critically. Children demonstrate their understanding by successfully playing the games. Teachers should also ask them to explain what they have done as talking about it often helps makes understanding more clear.

Facilitator then demonstrates two CLASSIFYING games using big cards and arranging them on the board in groups. Facilitator explains the games to the Participants first and lets them choose where to put the cards. When all the cards have been arranged the Facilitator asks the Participants' if they agree on the arrangement. If they say yes then the Facilitator asks questions about individual cards and why they have been put where they are. Participants volunteer to answer.

GAME 1 MATHEMATICS

Classify these quadrilaterals into two groups and name groups. Then classify each group into two sub-groups and name them.



GAME 2 SOCIAL STUDIES

Classifying means of transport into two main groups and then sub-divide, give a name to each of the groups

ferry boat small truck car moto bicycle cow cart moto remorque canoe
speedboat ship semi-trailer tuk-tuk food cart

First division *LAND - WATER or HAVE ENGINE - NO ENGINE or ROAD - OFF ROAD*

Second division *as above or whatever can be argued.*

Facilitator says that producing learning games to stimulate critical thinking will be followed up in meetings with CTs during the year.

TOTAL 6h. 30

Day 3

Theme 3 : Developing language skills - reading and writing

Session 3.1 Creating a classroom environment supporting language development 20 mins

MATERIALS : **HANDOUT 13** Creating a rich classroom environment

The Facilitator explains : the Teacher is the manager of the classroom. The Teacher's responsibility is to work with the children to create a "rich" environment for learning. This means that the room should be healthy (clean), attractive and stimulating place. The aim is for children to be happy to come there everyday and be able to find new things to look at and explore.

The Facilitator says: a "rich" environment does not mean that the Teacher has to spend a lot of money on decorations. The classroom should be "rich" in stimulating materials. Some of these can be bought from PAP money (e.g. alphabet and number charts, maps etc.), some might be provided by the MoEYS or other government program (e.g. ESCUP, Mines education, HIV AIDS, Nutrition, EFA etc) and others can be prepared by the Teacher and students. These can include

- examples or displays of student writing, drawings or handicraft
- locally made work implements and utensils (fish traps, tools, baskets ...)
- materials from the environment such as displays of leaves, flowers, insects
- simple experiments for children to observe and document (seed germination or plants growing in water or pots, tadpoles, insect zoos, decaying fruit ...)

The Facilitator says : Teachers should look out for resources everywhere. Old magazines and newspapers are often interesting. Out of date or discarded posters for meetings and events or government awareness raising campaigns can be interesting sources of pictures and authentic texts for discussion and analysis. Teachers can work with students to add value to old posters and charts by labeling, captioning etc.

Teachers and children should not just arrange displays and forget them. The materials can be used as teaching and learning materials for lessons. They should also be replaced after they have been in place for a month or two to maintain children's interest.

Facilitator distributes **HANDOUT 13** on creating a rich classroom environment

Session 3.2 Language across the curriculum

15 mins

MATERIALS : Chart with three ways of language learning

Facilitator asks Participants : *At school, what subjects do children learn about using language ?*
Expected answer : *All subjects*. Facilitator agrees and says that all lessons, whatever the subject, are also language lessons.

Facilitator then says that educators call this idea of every lesson being a language lesson - "Language across the curriculum".

Facilitator says : Another way educators describe it as saying that in every lesson children are learning language

learning about language
learning through language

What do you think this means ?

Language learning - 3 ways	Means
Learning language	Learning new words
Learning about language	Learning new language structures, rules, grammar, ways of using language to convey meaning
Learning through language	Using language as a way of explaining about and understanding ideas and information from many other subjects

Session 3.3 Using posters and pictures ... listening and speaking skills **45 mins**

MATERIALS : Three or four examples of posters which might be found in primary classrooms (e.g. Mine risk education (MoEYS-WE), Enrolment (MoEYS), etc.)

Use of posters for teaching

Facilitator says : Posters with pictures and/or text are useful teaching aids. It is easy for Teachers to ask questions about them which give children opportunities to practice listening and speaking skills. The questions can be asked at different levels as in the examples given below ...

Examples of questions	Examples of answers	Level of question
What can you see in the picture ?	I can see a	Memory
What is the poster about ?	It's about	Understanding
Why do you think ...?	I think ... because	Critical thinking
What do you like most about ... ?	I like ... because	Critical thinking

Facilitator then divides Participants into the same number of groups as examples of Posters. Each Participant is given three strips of paper and asked to write three questions about the poster. The Group Leader collects all the questions, removes duplicates and then presents all the different questions to the whole group.

Facilitator says : Teachers can also use posters for simple learning games such as

- Can you see anything in the poster beginning with the letter ... ?
- Can you stick this written label on the right place on the poster ?
- What are the five biggest things you can see in the poster ? Stick these numbers 1, 2, 3, 4 and 5 on the things you find.
- How many things can you find in the poster which are green/red/white ... ?

Facilitator concludes by saying : These games are useful for giving children something to do if they finish a lesson early or if some children finish their work before others.

Session 3.4 Using maps ... developing oral language **45 mins**

MATERIALS : Examples of maps appropriate to each Grade level (village/commune, District, Cambodia, Region, World)

Use of maps for teaching

Facilitator says : Maps are a very useful teaching aid. Teachers can use maps as a resource for student learning in Language, Mathematics and Social Studies. As children grow older their horizons also expand. In Grade 1 the children's focus is on self, family, and home. In Grade 2 and 3 they start to think and learn about their village, commune and perhaps their province. In higher Grades they learn about their province, their country, their region and the world itself.

Grade	Children's focus	Map
Grade 1	My home, my school, going to school	Classroom
Grade 2	My village, my commune	Local area, Cambodia
Grade 3	My commune, my province	Province, Cambodia
Grade 4	My province, my country	Cambodia or S.E. Asia
Grade 5	My country, my region, the world	S.E Asia, World
Grade 6	The world	World

Teachers can ask questions to which Children must listen carefully to Teachers' questions and then explain clearly using their own language. Teachers can ask questions which require students to ...

find places on the map	talk about coastlines and islands
describe locations (using terms N, S, E, W)	talk about roads and rivers
describe the location of one place relative to another	talk about and compare distances
talk about borders	talk about traveling from A to B
identify and name bordering districts/provinces/countries	

Facilitator then divides Participants into the same number of groups as examples of maps. Each Participant is given three strips of paper and asked to write three questions about the map. The Group Leader collects all the questions, removes duplicates and then presents all the different questions to the whole group.

Like posters and pictures, maps are useful resources for giving children something to do if they finish a lesson early or if some children finish their work before others.

Session 3.5 Practical teaching techniques for developing reading skills

45 mins

Reading aloud by Teacher and children

MATERIALS : Poster listing Conventions of Print

Story book (with pictures) suitable for Grade 1 and 2 children.

Facilitator says : Many Primary School Teachers are concerned that Cambodian children develop reading and writing skills very slowly. Teachers in higher grades complain that children come into their class with very poor literacy skills. One of the reasons for this is that many Cambodian children grow up in houses where there are not many books, magazines or newspapers. Children do not often see older siblings or adults reading. This means that many children come to school without basic understandings about print or knowledge of the variety and purposes of different types of text.

Facilitator says : Before children can read by themselves, Teachers can help them learn some of the basic rules about reading by demonstrating and talking about them. These rules are Educators call these rules the CONVENTIONS OF PRINT. Some of the conventions of print are so obvious that Teachers can forget that children may not know about them. Examples of the conventions of print for Khmer are ...

- you must read a text from front to back of a book
- you must start reading from the top of the page

- you must read a text from left to right along a straight line
- there are no breaks between many of the words
- there are breaks between some phrases and clauses and between sentences ...

The conventions of print are NOT the same for all languages.

Facilitator says : Teachers can help students' understand the conventions of print and develop reading skills by using some simple techniques. Teachers should use these techniques when they are reading a text for or with their students. Most of these techniques are suitable for children in Grades 1-3. Teachers can use some of them, such as prediction, at all levels.

Facilitator asks whole group : *What are some of the simple techniques Teachers can use when they are reading a text/story to children which will help them learn to read ?* A volunteer writes the ideas down on the blackboard as the Participants speak.

Expected answers :

- *before the Teacher reads, s/he shows the pictures and asks the children if they can guess what the text is about*
- *Teacher reads the text for the first time with children listening only*
- *Teacher then reads the text holding up the book so all the children can see*
- *when Teacher reads, s/he follows the text with their finger from left to right*
- *when Teacher reads s/he shows how when one line ends the eyes/finger return to the next line and begins at the left*
- *Teacher tells children to follow the text in their own books, using their fingers to follow, while the Teacher reads*
- *the Teacher stands in different parts of the room as s/he reads to observe whether all the children are following*
- *the Teacher stops reading every now and then and asks the children if they can predict the next word or words from their understanding of the meaning of the story*

Facilitator asks one of the Participants to demonstrate some of these techniques as they read a story.

Session 3.6 Practical teaching techniques for developing reading skills

45 mins

Developing children's knowledge of the structure of "complete" texts

MATERIALS : Chart showing Teacher questions and characteristics of a complete text

Facilitator says : Most Teachers concentrate heavily in their teaching of reading on letters and words, rather than on the whole text. The result is that children do not have much opportunity to think about meaning and what makes a "complete" text. It is difficult for children to become skilful in reading and writing if they do not have a chance to think about the whole text. Even small children can learn to analyze a text in a simple way if Teachers ask the right questions. Children will benefit a lot in later years from these understandings when they start to write their own texts.

Facilitator says : When the Teacher and children have finished reading, the Teacher should ask the children questions about the whole text.

Facilitator asks Participants : *Can you give some examples of questions Teachers can ask to help children develop their sense of what is a complete text ?* A volunteer writes the ideas down on the blackboard as the Participants speak.

Expected answers

- *Who were the main characters in the text ?*
- *What happened in the text (the main events) ?*
- *Where did the events in the text take place ?*
- *When did events in the text take place ?*
- *How did it start ?*
- *What happened next ... (ask the children to re-tell the story in their own words) ?*
- *What happened at the end ?*

Teachers' questions	Characteristics of complete text
Who were the main characters in the text ?	Characters
What happened in the text (the main events)	Events
Where did the events in the text take place ?	Place
When did events in the text take place ?	Time
How did it start ?	Introduction
What happened next ... (ask the children to re-tell the story in their own words) ?	Body of text, the "story"
What happened at the end ?	Conclusion
What was your favourite part of the text ? Why ?	Critical thinking question
Who was your favourite character in the text ?	Critical thinking question

Facilitator asks a Volunteer to take the story book read in the previous session and ask the whole group the set of questions about the text ... Participants answer.

Session 3.7 Practical teaching techniques for developing writing skills Original writing and negotiating text

45 mins

MATERIALS : Chart summarizing outcomes of research about good writing.

Facilitator says : Some people who do not work in schools think that "writing skills" are the same as "hand writing skills". They think that if people know the letters and can draw them with a pencil then they can write.

Facilitator says : It is true that learning to write letters and words is an important part of children's work in Grade 1, 2 and 3. By Grade 4, however, children should begin to develop other skills as well as the ability to write neatly and spell correctly.

Facilitator asks : *If good writing is more than neat hand writing and good spelling, what is it ?*
Facilitator gives stripes of paper to Participants to work in groups of five and try and write a short definition of good writing. Groups display strips and a representative reads them.

Facilitator says : Most educators agree that ***a good writer is someone who can communicate meaning clearly and economically using print.***

Facilitator puts up chart on blackboard and says : There have been many studies of writing in different languages around the world. These studies agree that

- the best way to improve as a writer is to write your own texts (that is, by practice)
- copying the writing of others is not the best way to improve writing skills (except when the child is very young and has not yet learned hand writing)
- writing is a process - writers need to write a piece several times (write several DRAFTS) before they complete it
- it often helps to discuss a piece of writing with others before completing it

- texts can be classified into different types and each one has its own characteristics
- children who understand the basic structure and characteristics of different types of writing are better writers

Facilitator says : It is important for the Teacher to provide opportunities for even the youngest children to produce their own writing. This means that the writing contains the children's own ideas, it is not copied from the blackboard or a book. Children who do original writing will grow in confidence as they practice ... one sentence will become two and then three ... and then a paragraph ... each one a complete text. It is also important that Teachers let children see examples of their own writing - displayed on the classroom walls, pegged to string above the desks or written out on the blackboard.

Facilitator says : But how to children who are not able to write yet produce their own texts ? They can do this through a process called "negotiating text". This means that the Teacher and the children discuss what the children want to say and, when the children agree, the teacher writes it for them. Then Teacher and children read the text together. Although they have not written it themselves the children feel ownership of the text because it was their idea. The same process can be used when a child does a drawing. The Teacher can ask what the child wants to write under the drawing and then writes down what the child says.

Teachers can also use the negotiated text approach successfully with older children who can discuss in a group what they want to say (negotiation) and then one of the group can write down the group's ideas.

Facilitator then demonstrates the process by negotiating a text with a group of 6 volunteer Participants while others observe.

Session 3.8 Practical teaching techniques for developing writing skills

45 mins

The writing process (Drafting and Conferencing)

MATERIALS

Facilitator says : Few writers can produce a perfect text at their first attempt. Most writing has to go through a process of one, two or more DRAFTS before the writer is satisfied with it. This is now very easy on a computer as corrections can be made at any time. With handwriting it is more difficult and often messy. Crossings out, additions and other amendments have to be made on the paper or the slate or blackboard. Writers should never be criticized for untidy drafts - lots of alterations shows that the writer is serious about producing a high quality FINAL DRAFT.

Facilitator says : Many writers benefit from having someone else read and make comments on a draft of their writing. This discussion is called CONFERENCING. In a conference the person reading the draft should concentrate mainly on the meaning - is it clear ? is it confusing ? are there good parts which could be made stronger ? Spelling mistakes are not so important (unless it is a final draft) being conferenced. In a FINAL DRAFT the meaning should be very clear and all mistakes, including spelling and punctuation, corrected.

Facilitator says: Drafts can be written on old paper or they can be written on slates or small blackboards. Writing it on a small blackboard makes corrections easier. It is also good if a small group is working together on a text as they can all gather round and see the text together.

Session 3.9 Varying the diet of text - using authentic texts

45 mins

MATERIALS : HANDOUT 15 on sources of authentic text

Authentic texts (for older children)

Facilitator says : Most children only read texts that are in Textbooks or in "storybooks" from the library. Teachers can help broaden children's experiences as readers by introducing them to other kinds of texts. Many of these texts are very common in the day to day lives of children but are rarely used for study. The most common are texts used in advertising and on products. These may be very simple ("My country, my beer") or very complex (the chemical constituents of a can of soft drink). As well as reading and understanding the surface meaning of these texts Teachers can ask questions which encourage children to think about why these texts are written (PURPOSE) and who they are written for (AUDIENCE).

Facilitator tells Participants to divide into small groups to discuss and list examples of authentic texts in their communities and schools. When participants have completed the task, representatives from one group can present their findings. Other groups' representatives can add any additional ideas

Anticipated/possible answers :

<i>Authentic text</i>	<i>Examples</i>	<i>Purpose</i>	<i>Audience</i>
<i>Advertisement</i>	<i>Any product</i>	<i>To sell a product</i>	<i>Anyone likely to buy the product</i>
<i>Instructions for use</i>	<i>VCD player</i>	<i>Inform, prevent injury</i>	<i>Someone who buys or uses a product</i>
<i>Recipe</i>	<i>Food product</i>	<i>To give cooking instructions</i>	<i>Anyone who wants to cook that thing</i>
<i>Information</i>	<i>Election poster</i>	<i>To persuade people to vote for a particular party</i>	<i>Anyone who can vote</i>
<i>Information</i>	<i>Health poster</i>	<i>To inform about good health practice or health risk</i>	<i>Anyone who can read it</i>
<i>Information</i>	<i>Street banner</i>	<i>Influence thinking, persuade</i>	<i>Anyone who can read it</i>

Session 3.10 Distribution of materials packages**20 mins**

MATERIALS : Checklist of materials

The Facilitator distributes the bags containing teacher supplies to the participants along with a checklist of contents which participants are asked to mark off.

TOTAL 6h 10

*Educational Support to Children in Underserved Populations
(ESCUP)*



**3 Day Refresher Training for
Community Teachers**

Participants' Handouts

October 2006

**3 Day Workshop for Community Teachers
October 2006**

Participants Handouts

No.	Title of Handout
1	Workshop session plan and timetable
2	Sample lesson plan using MoEYS format
3	Case Studies of 3 lessons
4	Case studies analysis chart
5	Diagrams/photographs of two small learning groups
6	Assessment
7	Teacher Reflection
8	Diagram of taxonomy of countries and animals
9	Case Study of levels of questioning and thinking
10	Two learning activities with questions for analysis
11	Questioning and Critical Thinking
12	Using research tasks to help children think critically
13	Creating a language-rich classroom environment
14	Practical ideas for developing the four language skills
15	Authentic text : Sources, examples, purposes, intended audience
16	Materials list

ESCUP
3 Day Refresher Training for Community Teachers

CONTENTS

Day 1 Introduction	Timing
1.1 Welcome and introduction to the 3 day workshop program	15 mins
1.2 Status of ESCUP Project	20 mins
1.3 Plans for CT support in ESCUP for 2006-2007	10 mins
1.4 What CTs have said they want in the 3 day training ... (1) Lesson planning (2) Classroom management (3) Teaching and learning materials production (4) Materials for teaching and learning	15 mins
Theme 1 : Planning, teaching/learning, reflecting (as a "cycle")	
1.5 Lesson planning ... the elements of lesson planning and the MoEYS model	60 mins
1.6 Analyzing small group learning activities	90 mins
1.7 Planning cooperative learning activities for small groups	60 mins
1.8 Assessment of children	60 mins
1.9 Assessing teaching - the reflective teacher	60 mins
TOTAL	6h.30
Day 2 Theme 2 : Questioning skills and critical thinking	
2.1 Questioning skills ... why do teachers use questions	15 mins
2.2 What is a taxonomy ?	30 mins
2.3 Classification (taxonomy) of questions	60 mins
2.4 Analyzing questions - Participants' tasks	45 mins
2.5 Structure of language and levels of questioning	60 mins
2.6 Writing higher level questions - Participants' task	60 mins
2.7 Learning tasks to help students think critically : 1. Student research	60 mins
2.8 Learning tasks to help students think critically : 2. Learning games	60 mins
TOTAL	6h.30
Day 3 Theme 3 : Developing language skills	
3.1 Creating a rich classroom environment	20 mins
3.2 Language across the curriculum ... children learning language, learning about language, learning through language in all subjects	15 mins
3.3 Using posters and pictures - developing listening and speaking skills	45 mins
3.4 Using maps - developing listening and speaking skills	45 mins
3.5 Reading aloud to develop listening skills and knowledge of text	45 mins
3.6 Helping children understand what makes a "complete" text	45 mins
3.7 Encouraging children to write - original writing and negotiating a text	45 mins
3.8 Encouraging children to write - drafting and conferencing	45 mins
3.9 Varying the diet of text - using authentic texts (life skills, relevance)	45 mins
Distribution of materials packages	20 mins
TOTAL	6h.05

Sample lesson plan using MoEYS format
(only available in Khmer)

Case Studies of three learning activities

In each of these lessons the teacher is teaching a Mathematics lesson about fractions. After introducing the topic the teacher draws some diagrams on the board and explains to the children about the way to add fractions which have the same denominator. After drawing the diagrams the teacher shows the children how the fractions in the diagrams can be written as numbers with a numerator on top and a denominator below.

Case Study 1

The teacher tells the children to form small groups.

The teacher writes five sums on the blackboard and asks the children to do them in their own notebooks. The sums involve adding fractions with the same denominator (e.g. $1/4 + 2/4 = ?$; $2/10 + 5/10 = ?$...).

When the children have finished the Teacher tells them to give their book to someone else.

Then the teacher writes the correct answers on the board and tells each of the children to mark the sums right or wrong and give a score out of ten.

Then the children give the notebooks back to their owners.

The teacher asks all the children who scored less than 5 to put their hands up.

More than half the class raise their hands.

Case Study 2

The teacher tells the children to form small groups.

The teacher gives each group a piece of paper.

The teacher writes ten sums on the blackboard and asks the children to choose someone in the group to copy them onto the paper. The sums involve adding fractions with the same denominator (e.g. $1/4 + 2/4 = ?$; $2/10 + 5/10 = ?$...).

Then the teacher tells the children in each group to discuss the sums together and agree on the answers.

When the children have finished the Teacher tells each group to give their paper to another group.

Then the teacher writes the correct answers on the board and tells each group to mark the sums right or wrong and give a score out of ten.

Then each group gives the paper back to the group who did the work.

The teacher asks all the groups who scored more than 5 out of 10 to put their hands up.

All in the groups put their hands up.

Case Study 3

The teacher tells the children to form small groups.

The teacher gives each group a piece of paper.

The teacher writes ten sums on the blackboard and asks the children to choose someone in the group to copy them onto the paper. The sums involve adding fractions with the same denominator (e.g. $1/4 + 2/4 = ?$; $2/10 + 5/10 = ?$...).

The teacher tells the children in each group to draw diagrams for each sum and then discuss the sums together and agree on the answers.

When the children have finished the Teacher asks a volunteer to come and draw a diagram on the board and explain the answer for the first sum.

Other children then come up and draw diagrams and explain each sum.

The teacher tells each group to mark their own work.

The teacher asks all the groups who scored more than 5 out of 10 to put their hands up.

All in the groups put their hands up.

**CT 3 Day Training
Handout 4**

Case studies analysis chart

Point of comparison	Case study 1	Case study 2	Case study 3
Does the task require memory only or some deeper thinking ?	<i>Memory only - doing the sum and getting it right or wrong</i>	<i>Memory and thinking - drawing new diagrams to help explain what is happening in the sum</i>	<i>Memory and thinking - drawing diagrams to help explain what is happening in the sum</i>
Does the task require group activity (discussion, agreement) to complete it ?	<i>No, all the work done by individual children</i>	<i>Yes, children agreed on drawing diagrams and answering the sums. Groups also marked the work.</i>	<i>Yes, children agreed on drawing diagrams and answering the sums. Groups also marked the work.</i>
Does the group have to produce something to complete the task ?	<i>No.</i>	<i>Yes. Each group had a product.</i>	<i>Yes. Each group had a product.</i>
Did children have opportunities to discuss the task with other children	<i>No.</i>	<i>Yes.</i>	<i>Yes.</i>
Did children have a chance to explain their thinking to the teacher and the whole class ?	<i>No.</i>	<i>No, they only talked about it with each other in the group.</i>	<i>Yes, they explained when they showed on the board how they answered the sums.</i>
Was there a "right answer" for this learning activity ? Is this always so ?	<i>Yes, there was a "right answer". This is not always the case. Cooperative learning tasks in which students give their opinion or answer from their experience can often produce very different answers.</i>		
Rank the learning activities in order of effectiveness (1, 2 and 3). Write down the reasons for your choice.	1	2	3

Diagrams/photographs of two small learning groups
rUbfTI1



Assessment

How do Teachers find out if they have been working effectively with children or not ? One of the main ways is by doing assessment – assessment of what the children have learned and assessment of their own performance as a Teacher.

In what ways can teachers assess the learning of children ? There are many different ways Teachers around the world make assessments; these include

- asking questions
- observation of children's behaviour
- looking at students' written work
- asking children to explain things
- quick oral tests and quizzes
- setting and marking written tests

Good Teachers do some of these kinds of assessment as part of their daily routine such as asking questions, observing students' behaviour and looking at students' work. These kinds of assessment are called **INFORMAL** because they are not planned and happen all the time. Preparing, conducting and marking tests is usually called **FORMAL** assessment because they are carefully planned and carried out as a special activity at a special time of the year.

Some of these kinds of assessment are carried out during a course of study – these are called **FORMATIVE**. Other types of assessments are carried out at the end of a course of study – they are **SUMMATIVE**. Formative assessments are useful to Teacher and child because they can show whether children are having problems in learning. Teachers and children can then try to fix the problem. If only summative assessments are done then it can be too late to help the learner.

All kinds of assessment are useful for the Teacher in building his/her understanding of the progress in learning of each child in the class. All children need attention but many children are confident and independent. They learn quickly and enjoy working by themselves or with other children. Some children do not learn so easily and need much more direct support and encouragement from their Teacher. Teachers can use assessment to find out which children need more help and, also, what kind of help is most useful.

At the end of each year Teachers make recommendations about whether children are promoted to the next grade or have to repeat. This is an important decision. Children who can manage the next grade should be promoted because repetition is a major cause of drop out later on in school. But if children do not really understand the work they have done in their current grade there is no point in promoting them as they will not be able to succeed in learning at a higher grade.

Teachers who have carried out informal assessment and formative assessment during the year already have a good knowledge of the children's achievement. Teachers may have already done remedial teaching with these children to help them develop their skills. Teachers should use their knowledge about children's learning achievements

during the year when assessing the children's learning at the end of the year. **Teachers should not only rely on the end of year test results to make decisions about promotion.** Sometimes children do not get a good test score even though they have good skills. Perhaps they were not well on the day of the test or they were nervous or made some careless mistakes. If the Teacher knows from other assessments that the child's learning achievement is quite good, then the Teacher can decide to promote the child anyway. This is very important for the child and the family.

Teacher Reflection

Reflection is a practice which most good Teachers do as a habit. It means that they regularly think about the progress students in their class are making as learners. Teachers ask themselves questions such as these ...

Is everyone learning well ?

Which students are struggling ? What are the causes of their difficulties ?

Is everyone in the class interested in the learning program ?

Are all the children attending school regularly and enjoying what they do ?

There will usually be some children who are in need of extra attention.

Teacher Reflection is self-assessment. The main purpose of Teacher reflection is ...

In what ways can I change my teaching practice to improve the learning of the students in my class. ?

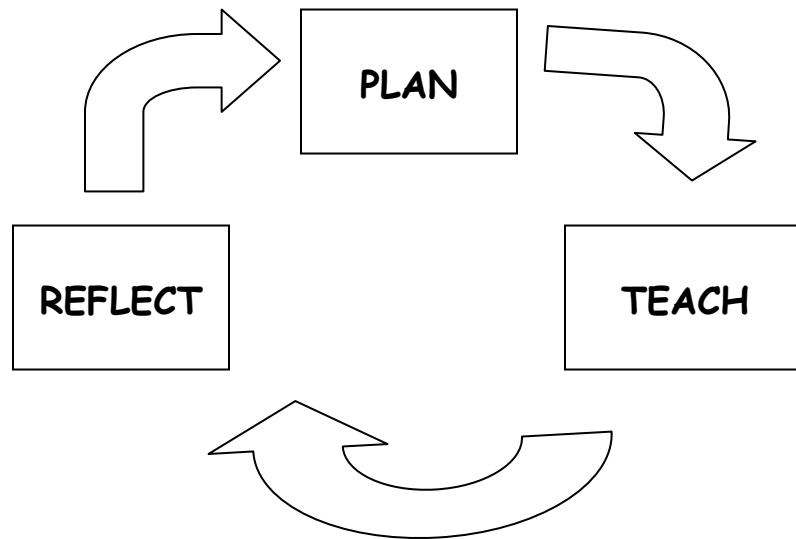
The focus is on changing the Teacher's own practice to produce better results.

When the Teacher decides what s/he will do differently, s/he then makes a plan to do it. The Teacher could plan to organize more small group learning activities (at least once a day), or organize learning activities outside the classroom (at least one or two a week) or collect and make a display of children's drawings. When the Teacher has tried the new idea, s/he should reflect again - did it work ? did the children enjoy it ? did it help the children develop new understandings and skills ? If the children benefited from the new idea then the Teacher can make it a part of his/her regular teaching practice. Sometimes when a Teacher tries out new ideas, s/he will think of other new ideas. The Teacher can then try them out in the same way.

So, the Teacher has begun using a process which helps them change and improve. The steps are

- reflecting on the problems children have in the class
- thinking of ways to change teaching practice which will help address the problems
- planning to use the new ways
- using them in teaching
- thinking about whether they were successful or not

Sometimes this process is drawn as a diagram and called the Reflective Teaching Cycle (see over page)



It is also sometimes drawn as a spiral to show that the process does not just last for one cycle ... it can be a continuous process that can become part of the Teacher's routine.

**CT 3 Day Training
Handout 8**

Diagram of taxonomy of countries and animals

GROUP 1			
Category : Nations in the world Cambodia France Vietnam China Germany Italy Malaysia Japan Philippines Sri Lanka India Spain Laos Ireland			
Category : Asia Cambodia Vietnam China Malaysia Japan Philippines Sri Lanka India Laos		Category : Europe France Germany Italy Spain Britain Cyprus Ireland	
Category ASEAN Cambodia Vietnam Laos Malaysia Philippines	Category non ASEAN China Japan Sri Lanka India	Category Continental Europe France Germany Italy Spain	Category Islands in Europe Britain Cyprus Ireland

GROUP 2			
Category Animals dog cat bongkong sea shrimp chicken shark duck tiger octopus whale bear eagle trey rot trey borbel kreal goose hornbill otter buffalo			
Category Land animals dog cat chicken duck tiger bear eagle kreal goose hornbill buffalo		Category Water animals bongkong sea shrimp shark octopus whale trey rot trey borbel otter	
Category Mammals dog cat tiger bear buffalo	Category Birds chicken duck eagle kreal goose hornbill	Category Fresh water bongkong trey rot otter	Category Salt water sea shrimp shark whale trey borbel

Case Study of levels of questioning and thinking

A teacher reads this short text to his/her Grade 5 class or writes it on a piece of paper and gives it to small groups of children to read and discuss ...

Many motorbikes, cars and trucks are using a dusty section of road in front of my house where young children often play. Some of the vehicles are speeding. There is a serious risk of injury to a child. It is even possible that a child might be killed. I don't know how we can solve this problem.

As a teacher, what kind of questions could you ask children about this text ? Some examples are written below. Make notes about each Question as the facilitator discusses them.

Question	Answer/possible answer(s)	Type
What kind of traffic is using the road ?		
Where is the road ?		
Who is most at risk of being injured ?		
Why are children at risk of being injured ?		
Why do you think children are playing near the road ?		
What is the writer most worried about ?		
What do you think people living near the road could do to help prevent injury to children ?		

Two learning activities with questions for analysis

Example 1 Science

Teacher and students plant some very small flower seedlings in a garden outside the classroom. The class is divided into six small groups. The children in the group have to look after their plants (watering etc). The children observe the plants once a week and the Teacher asks them to describe what they can see. At first nothing happens then the plants come up. About a month after the children plant their seedlings the first flowers appear. After two months one of the groups' flowers die. The day after the plant died the Teacher plans a lesson about the flowers and the garden. She gives the children six questions to discuss in their small group.

Question	Expected or possible answer(s)	Question type
What was the name of the plant ?	<i>Name</i>	<i>Memory</i>
When did we plant the seedlings ?	<i>2 months ago</i>	<i>Memory</i>
What colour were the flowers ?	<i>White etc.</i>	<i>Memory</i>
What do plants need to grow ?	<i>Water, soil, sun,</i>	<i>Understanding</i>
Why did some of the flowers die ?	<i>Too much water Too much sun Not enough water Plant was old Plant had a disease</i>	<i>Critical thinking</i>
Why do you think some plants grew taller and had more flowers than other plants ?	<i>They were in better soil They were better quality plants (healthier) The children in the group looked after them well They got more sun</i>	<i>Critical thinking</i>

Example 2 Mathematics

A Teacher gives 20 matches to each of six small groups of children in his Grade 2 class. The Teacher then tells the children to work together to agree on answers to a number of questions she will ask them.....

Question	Expected answer or possible answer	Question type
How many matches are there ?	20	Memory
How many groups of five can you make with 20 matches ?	4	Memory
A boy with 20 marbles has a hole in his pocket and when he gets to school, only 13 are left. How many did he lose on the way ?	7	Memory ?? Understanding
A boy with 20 marbles gives exactly four marbles each to some his friends. How many of his friends get marbles ?	5	Memory ?? Understanding
What is the biggest square you can make ? Do you have any matches left over ? Can you make a square with them ?	5 X 5 matches	Critical thinking
What is the longest rectangle you use 20 matches to make ? Can you make another, different rectangle ?	9 X 1 matches 8 X 2 matches 7 X 3 matches etc.	Critical thinking

Children could answer the first two questions by **counting**. The children had to listen to the next two number stories, **understand the meaning** and then model what was going on in the stories with their matches to get the answer. In the two critical thinking questions the children had to **listen, understand and apply their understanding** of what is a square and a rectangle in experimenting to get their answer.

Questioning and Critical Thinking

Questioning is an important tool for Teachers. Questioning is a skill which Teachers can improve through practice. Teachers can use questions to

- find out what children already know about a topic (before starting to teaching them)
- check children's understanding of what they have been learning
- develop children's listening and speaking skills
- get children to talk about their own experiences
- get children to express their ideas and opinions
- help make their own teaching more child-centred

Teachers should also encourage children to ask questions – both to other children and to the Teacher.

Many Teachers in Cambodia already know that there are different kinds of questions. For example, Teachers ask children questions to find out if they remember something already studied at school. These are usually called **MEMORY** questions. But Teachers also ask questions which children cannot answer from memory. These have been called **THINKING** questions because children have to think before they answer them.

There are a number of different kinds of thinking questions. Some thinking questions require children to look and listen and then show that they understand by explaining. These can be called **UNDERSTANDING** questions. Other, more difficult questions, involve much more than this. To answer these questions children must first understand **AND** then do some more thinking to construct an answer. The extra thinking might involve

- understanding a rule or law and applying it in another situation (**APPLICATION**)
- joining together two ideas to constructing a new, third idea (**SYNTHESIS**)
- examining a set of ideas or pieces of information and identifying similarities, differences and relationships (**ANALYSIS**)
- reviewing a set of ideas or pieces of information and giving a personal opinion about them in terms of qualities (number, size, effectiveness, cost ... etc) (**EVALUATION**)

These kinds of questions are called **CRITICAL THINKING** questions because someone has to think for themselves and create a new idea or piece of information to answer them.

This chart summarizes three basic categories of questions and their characteristics

Question Type	To answer, someone must	Type of thinking/activity needed to answer
Memory	... be able to remember and say something they have already learned	Recall, remember,
Understanding	... be able to understand and explain in another way an idea or	Comprehend, explain,

	piece of information already given	
Critical thinking be able to understand and create a new idea from existing ideas or information and be able to explain it ...	Compare, contrast, interpret, apply, deduce, analyze, hypothesize, evaluate, prioritize,

Teachers can use these three types of questions with children of all ages. There is nothing wrong with using memory and understanding questions, they are important in establishing quickly whether children are following the lesson or not. However, as children get older, it is important for Teachers to provide more critical thinking questions and make those questions more challenging. Often this will mean asking children directly to give their opinion and explain the reasons on which it is based.

**CT 3 Day Training
Handout 12**

Using research tasks to help children think critically

Grade	Research task	Initial question, process and critical thinking questions
1	Breakfast research	<p>What did we have for breakfast this morning ? Children organize in groups according to what they had for breakfast (rice, noodle, nothing etc). Group leaders count their groups. Children write numbers of each group on board. Teacher asks follow up questions ... most popular breakfast etc.</p> <p>What have we learned from our research ?</p> <ul style="list-style-type: none"> • Most children in the class eat left over rice in the morning • Some children eat noodles • Some children don't eat anything in the morning before school
3	Plant research	<p>What kind of flowering plants grow at our homes? For homework, all children bring to school one example of a flower and leaves from a plant at or near their house. At school they meet in groups to look at, count and name the different flowers members of their have brought in. Each group presents its results</p> <p>What have we learned from our research ?</p> <ul style="list-style-type: none"> • Most people grow hibiscus flowers • Most people like red or yellow flowers • We found two flowers they no-one could name
5	Traffic research	<p>How busy is the road outside our school gate ? Do trucks and cars slow down when passing the school ? If the school is on a busy road, children can count and classify by type (big trucks, small trucks, cars, motos, remorques, cow cart, bicycle etc.) passing by the school gate between 0700 and 0730. Children should also mark trucks and cars that were going fast</p> <p>What have we learned from our research ?</p> <ul style="list-style-type: none"> • X trucks and X cars passed during the 30 minutes • Some of the vehicles were traveling fast; half of the trucks and cars counted did not slow down outside the school • We should make new, bigger signs asking trucks and cars to slow down to make it safer for children to enter the school.

Creating a language-rich classroom environment

The Teacher is the manager of the classroom. The Teacher's responsibility is to work with the children to create a "rich" environment for learning. This means that the room should be healthy (clean), attractive and stimulating place. The aim is for children to be happy to come there everyday and be able to find new things to look at and explore.

A "rich" environment does not mean that the Teacher has to spend a lot of money on decorations. The classroom should be "rich" in stimulating materials. Some of these can be bought from PAP money (e.g. alphabet and number charts, maps etc.), some might be provided by the MoEYS or other government program (e.g. Mines education, HIV AIDS, Nutrition, EFA etc) and others can be prepared by the Teacher and students. These can include

- examples or displays of student writing, drawings or handicraft
- locally made work implements and utensils (fish traps, tools, baskets ...)
- materials from the environment such as displays of leaves, flowers, insects
- simple experiments for children to observe and document (seed germination or plants growing in water or pots, tadpoles, insect zoos, decaying fruit ...)

Teachers should look out for resources everywhere. Old magazines and newspapers are often interesting. Out of date or discarded posters for meetings and events or government awareness raising campaigns can be interesting sources of pictures and authentic texts for discussion and analysis. Teachers can work with students to add value to old posters and charts by labeling, captioning etc.

Teachers and children should not just arrange displays and forget them. The materials can be used as teaching and learning materials for lessons. They should also be replaced after they have been in place for a month or two to maintain children's interest.

**CT 3 Day Training
Handout 14**

**Practical ideas for developing language skills
Listening, Speaking, Reading and Writing**

Teaching idea 1 Using posters/pictures

Posters with pictures and/or text are useful teaching aids. It is easy for Teachers to ask questions about them which give children opportunities to practice listening and speaking skills. The questions can be asked at different levels as in the examples given below ...

Examples of questions	Examples of answers	Level of question
What can you see in the picture ?	I can see a	Memory
What is the poster about ?	It's about	Understanding
Why do you think ...?	I think ... because	Critical thinking
What do you like most about ... ?	I like ... because	Critical thinking

Teachers can also use posters for simple learning games such as

- Can you see anything in the poster beginning with the letter ... ?
- Can you stick this written label on the right place on the poster ?
- What are the five biggest things you can see in the poster ? Stick these numbers 1, 2, 3, 4 and 5 on the things you find.
- How many things can you find in the poster which are green/red/white ... ?

These games are useful for giving children something to do if they finish a lesson early or if some children finish their work before others.

Teaching idea 2 Using maps

Maps are a very useful teaching aid. Teachers can use maps as a resource for student learning in Language, Mathematics and Social Studies. As children grow older their horizons also expand. In Grade 1 the children's focus is on self, family, and home. In Grade 2 and 3 they start to think and learn about their village, commune and perhaps their province. In higher Grades they learn about their province, their country, their region and the world itself.

Grade	Children's focus	Map
Grade 1	My home, my school, going to school	Classroom
Grade 2	My village, my commune	Local area, Cambodia
Grade 3	My commune, my province	Province, Cambodia
Grade 4	My province, my country	Cambodia or S.E. Asia
Grade 5	My country, my region, the world	S.E Asia, World
Grade 6	The world	World

Like posters and pictures, maps are useful resources for giving children something to do if they finish a lesson early or if some children finish their work before others.

Teaching idea 3 Reading aloud and teaching conventions of print

Many Primary School Teachers are concerned that Cambodian children develop reading and writing skills very slowly. Teachers in higher grades complain that children come into their class with very poor literacy skills. One of the reasons for this is that many Cambodian children grow up in houses where there are not many books, magazines or newspapers. Children do not often see older siblings or adults reading. This means that many children come to school without basic understandings about print or knowledge of the variety and purposes of different types of text.

Before children can read by themselves, Teachers can help them learn some of the basic rules about reading by demonstrating and talking about them. These rules are Educators call these rules the CONVENTIONS OF PRINT. Some of the conventions of print are so obvious that Teachers can forget that children may not know about them. Examples of the conventions of print for Khmer are ...

- you must read a text from front to back of a book
- you must start reading from the top of the page
- you must read a text from left to right along a straight line
- there are no breaks between many of the words
- there are breaks between some phrases and clauses and between sentences ...

The conventions of print are NOT the same for all languages.

Teachers can help students' understand the conventions of print and develop reading skills by using some simple techniques. Teachers should use these techniques when they are reading a text for or with their students. Most of these techniques are suitable for children in Grades 1-3. Teachers can use some of them, such as prediction, at all levels.

What are some of the simple techniques Teachers can use when they are reading a text/story to children which will help them learn to read ?

- before the Teacher reads, s/he shows the pictures and asks the children if they can guess what the text is about
- Teacher reads the text for the first time with children listening only
- Teacher then reads the text holding up the book so all the children can see
- when Teacher reads, s/he follows the text with their finger from left to right
- when Teacher reads s/he shows how when one line ends the eyes/finger return to the next line and begins at the left
- Teacher tells children to follow the text in their own books, using their fingers to follow, while the Teacher reads
- the Teacher stands in different parts of the room as s/he reads to observe whether all the children are following
- the Teacher stops reading every now and then and asks the children if they can predict the next word or words from their understanding of the meaning of the story

Teaching idea 4 Developing understanding of "complete" texts

Most Teachers concentrate heavily in their teaching of reading on letters and words, rather than on the whole text. The result is that children do not have much opportunity to think about meaning and what makes a "complete" text. It is difficult for children to become skilful in reading and writing if they do not have a chance to think about the whole text. Even small children can learn to analyze a text in a simple way if Teachers ask the right questions. Children will benefit a lot in later years from these understandings when they start to write their own texts.

When the Teacher and children have finished reading, the Teacher should ask the children questions about the whole text.

Here are some examples of questions Teachers can ask to help children develop their sense of what is a complete text

- Who were the main characters in the text ?
- What happened in the text (the main events) ?
- Where did the events in the text take place ?
- When did events in the text take place ?
- How did it start ?
- What happened next ... (ask the children to re-tell the story in their own words) ?
- What happened at the end ?

Teachers' questions	Characteristics of complete text
Who were the main characters in the text ?	Characters
What happened in the text (the main events)	Events
Where did the events in the text take place ?	Place
When did events in the text take place ?	Time
How did it start ?	Introduction
What happened next ... (ask the children to re-tell the story in their own words) ?	Body of text, the "story"
What happened at the end ?	Conclusion
What was your favourite part of the text ? Why ?	Critical thinking question
Who was your favourite character in the text ?	Critical thinking question

Teaching idea 5 Original writing and negotiating text

Some people who do not work in schools think that "writing skills" are the same as "hand writing skills". They think that if people know the letters and can draw them with a pencil then they can write.

It is true that learning to write letters and words is an important part of children's work in Grade 1, 2 and 3. By Grade 4, however, children should begin to develop other skills as well as the ability to write neatly and spell correctly.

If good writing is more than neat hand writing and good spelling, what is it ? Many educators agree that ***a good writer is someone who can communicate meaning clearly and economically using print.***

There have been many studies of writing in different languages around the world. These studies agree that

- the best way to improve as a writer is to write your own texts (that is, by practice)
- copying the writing of others is not the best way to improve writing skills (except when the child is very young and has not yet learned hand writing)
- writing is a process - writers need to write a piece several times (write several DRAFTS) before they complete it
- it often helps to discuss a piece of writing with others before completing it
- texts can be classified into different types and each one has its own characteristics
- children who understand the basic structure and characteristics of different types of writing are better writers

It is important for the Teacher to provide opportunities for even the youngest children to produce their own writing. This means that the writing contains the children's own ideas, it is not copied from the blackboard or a book. Children who do original writing will grow in confidence as they practice ... one sentence will become two and then three ... and then a paragraph ... each one a complete text. It is also important that Teachers let children see examples of their own writing - displayed on the classroom walls, pegged to string above the desks or written out on the blackboard.

But how to children who are not able to write yet produce their own texts ? They can do this through a process called "negotiating text". This means that the Teacher and the children discuss what the children want to say and, when the children agree, the teacher writes it for them. Then Teacher and children read the text together. Although they have not written it themselves the children feel ownership of the text because it was their idea. The same process can be used when a child does a drawing. The Teacher can ask what the child wants to write under the drawing and then writes down what the child says.

Teachers can also use the negotiated text approach successfully with older children who can discuss in a group what they want to say (negotiation) and then one of the group can write down the group's ideas.

Teaching idea 6 The writing process (Drafting and Conferencing)

Facilitator says : Few writers can produce a perfect text at their first attempt. Most writing has to go through a process of one, two or more DRAFTS before the writer is satisfied with it. This is now very easy on a computer as corrections can be made at any time. With handwriting it is more difficult and often messy. Crossings out, additions and other amendments have to be made on the paper or the slate or blackboard. Writers should never be criticized for untidy drafts - lots of alterations shows that the writer is serious about producing a high quality FINAL DRAFT.

Many writers benefit from having someone else read and make comments on a draft of their writing. This discussion is called CONFERENCING. In a conference the person reading the draft should concentrate mainly on the meaning - is it clear ? is it confusing ? are there good parts which could be made stronger ? Spelling mistakes are not so

important (unless it is a final draft) being conferenced. In a FINAL DRAFT the meaning should be very clear and all mistakes, including spelling and punctuation, corrected.

Drafts can be written on old paper or they can be written on slates or small blackboards. Writing it on a small blackboard makes corrections easier. It is also good if a small group is working together on a text as they can all gather round and see the text together.

**CT 3 Day Training
Handout 15**

**Authentic text
Sources, examples, purposes, intended audience**

Authentic text	Examples	Purpose	Audience
Advertisement	Any product	To sell a product	Anyone likely to buy the product
Instructions for use	VCD player	Inform, prevent injury	Someone who buys or uses a product
Recipe	Food product	To give cooking instructions	Anyone who wants to cook that thing
Information	Election poster	To persuade people to vote for a particular party	Anyone who can vote
Information	Health poster	To inform about good health practice or health risk	Anyone who can read it
Information	Street banner	Influence thinking, persuade	Anyone who can read it

**CT 3 Day Training
Handout 16**

CHECKLIST OF MATERIALS

No	Description of item	Unit	Quantity
1	Bag	Unit	1
2	String		50m
3	Clips	Unit	20
4	Stapler	Unit	1
5	Staples	Box	1
6	Crayons	Pkt	2
7	Marker - black	Unit	3
8	Marker - red	Unit	3
9	Marker refill ink - black	Bottle	1
10	Marker refill ink - red	Bottle	1
11	Pens	Unit	2
12	A4 white paper	Ream	1
13	Small blackboards	Unit	10
14	Glue	Stick	2
15	Masking tape	Roll	2
16	Mobile letters	Set	1
17	Map Cambodia	Unit	1
18	Map World	Unit	1
19	Alphabet chart	Unit	1
20	Number chart (Khmer)	Unit	1
21	Number chart (Arabic)	Unit	1
22	Rubber bands	gram	250g
23	Straws	500	1
24	Notebooks	Book	4
25	Poster paper	Sheet	10
26	Cardboard	Sheet	5