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Booklet 4 :

# Creating Inclusive, Learning-Friendly Classrooms



Inclusive  
Learning-Friendly  
Environments

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## TOOL GUIDE

This Booklet will help you to understand how the concept of learning has changed over time as our classes have become more child-centred. It will give you tools and ideas about how to deal with children with diverse backgrounds and abilities that attend your class, as well as how to make learning meaningful for all.

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## Tool 4.1 Learning about Learning and Learners

### LEARNING AND TEACHING

In this Toolkit's Introduction, we said that "inclusive" meant including not only children with disabilities in the classroom but **ALL** children with diverse backgrounds and abilities. Actually, getting these children into our classrooms is only half of the challenge. The other half is in meeting all of their different learning needs, as well as in giving individualized attention to those children who are usually excluded from the classroom or from participating and/or learning in the classroom.

Our classrooms are diverse in terms of the types of children we teach and the ways that they learn. New research tells us that **children learn in different ways** because of either hereditary factors, experience, environment, or their personalities. Consequently, we need to use **a variety of teaching methods and activities** to meet the different learning needs of our children.

At first, this can be a frightening idea. Many of you may be working in large classrooms and may wonder, "How can I use different teaching methods to suit individual children when I have over 50 different children in my classroom?" Actually, this is one of the reasons why some of us may resort to "rote learning." We simply repeat information over and over, and have the children repeat it to us over and over again, hoping that they will remember it. While this may be an easy method for managing many children, be honest, it **IS** boring for our children and for us. Sooner or later, there is no enjoyment or challenge for us in teaching and definitely no enjoyment or challenge in learning for children.

To change this situation, we need to learn new ways of teaching and use these regularly with **ALL** of our children. They will then enjoy the different ways that they can learn, and **ALL** of the children will be able to learn. Some teachers are already using a variety of different methods, and they are finding teaching to be more rewarding for them as well.

Ms. Shikha Chanda is a teacher at the Kanchijhuli government primary school of Mymensingh district, which is about 120 kilometers away from Dhaka City, the capital of Bangladesh. She has been there for several years, but recently she was astonished to see the excitement of her pupils as they filed into class each morning. Her children are 6-10 years of age. She has been learning about learning in the IDEAL project and trying to apply her new-found knowledge about new approaches to learning in her classroom. She is happily surprised by the results.

"The IDEAL project trained me in this new teaching-learning approach and I noticed the difference immediately. Before, my children were listless and became tired very easily from the constant lecturing and repetition of the lesson. Now they look alert and speak out and are no longer shy."

Multiple Ways of Teaching and Learning in Bangladesh.  
<http://www.unicef.org/teachers/forum/0301.htm>



### Reflection Activity: How Were YOU Taught?

Think about how you were taught in school and how you were taught to teach. Write down how you felt about these methods.

	Teaching method(s) used	Comments. Were these methods teacher-directed (like rote memorization) or child- (learner-) centred?
When you were at school		
During teacher training		

Which of these teaching methods helped you to learn the best? Are you using these in your classroom? How are your children responding to these methods? Are they actively and happily learning, or are they just sitting quietly listening to you? How are they performing well on their examinations, quizzes, or other assessments?

## HOW CHILDREN LEARN

No child is “learning impaired.” Given the right conditions, ALL children—girls and boys—can learn effectively especially when they “learn by doing.”

For many of us, we learn best by “learning by doing,” that is, through actually doing activities and gaining experience. This is what we really mean when we talk about “active learning,” “children’s participation in learning,” or “participatory learning.” It’s getting children to learn new information through different activities and teaching methods. These activities are often linked to children’s practical experiences in everyday life. This linkage helps them to understand and remember what they are learning and then to use what they have learned later on in life.

What are some of the different ways that children learn? Knowing these different ways will help us to develop learning activities that are more meaningful for children **and** us. They will help especially those children who have traditionally been excluded from learning but who we want to keep in our inclusive, learning-friendly classrooms.

### **Sensory Learning: Sight, Sound, and Movement**

What are your children doing when they first come into your class in the morning? Hopefully they are looking at you (sight), listening to you (sound), and watching what you and others are doing (movement). **THEY ARE LEARNING!**

These three senses—sight, sound, and movement—are all important in helping children to learn. For children with disabilities, they learn in the same way as non-disabled children. However for these children, one of their senses—hearing, sight, or movement—may be more limited, and they may learn at a slower pace than their peers without disabilities.

Over the years, we have learned that 30% of children learn successfully when they hear something, 33% when they see something, and 37% through movement. As the old saying goes, "I hear and I forget; I see and I remember; I do and I understand." This is very important! If we only teach children by having them listen to us, then only about one-third of our students is learning anything. The same situation exists when we ask them only to write something down in their notebooks.

Shikha in Bangladesh understands that different children learn in different ways, so she varies her teaching: "We don't just use the chalk and board method. Teaching through song, dance, recitation, and acting is much more fun, and it is very easy because the children really concentrate and feel they are learning through joyful activities."

For teachers, this means that when we are planning lessons, we need to plan to use visual materials (posters, drawings, etc.), to use tasks that involve discussion (hearing and listening), and to provide opportunities for movement of some form (for example, drama or dance that is possibly linked to the different cultures represented in your classroom).

Remember that some children may have sight or hearing difficulties and will not receive the same sensory input as other children. Ask yourself, "What activities will be relevant to them, and how can I as a teacher adapt an activity to make it more relevant so ALL of my children can learn?"

## Multiple Ways of Learning

We know that some children learn best through reading and taking notes, others through studying visual materials, and still others through body movement (dance, sports) or musical activities. Some like to work on problems individually, while others like to interact with others to find solutions. Hence, children learn in many ways.

If we can observe or discover the many ways by which children in our inclusive classrooms learn, we can help ALL children to learn better, and we will gain greater satisfaction from teaching.

Shikha, from Bangladesh, noted that before she began changing her approach to teaching, attendance was low, yet now it has increased and more children attend school regularly. "Now they are eager to come to school. Before the new system, the teachers would come into the class and tell the children to just get on with their reading and our aim was to keep everyone quiet and studious. Now most of the teaching is through participatory techniques and activity based learning."

Active and participatory learning can use the many ways that help children to learn. Seven pathways by which children learn include the following.

- ◆ **Verbal or linguistic**, where some children think and learn through written and spoken words, memory, and recall.
- ◆ **Logical or mathematical**, where some children think and learn through reasoning and calculation. They can easily use numbers, recognize abstract patterns, and take precise measurements.
- ◆ **Visual or spatial**, where some children like art, such as drawing, painting, or sculpture. They can easily read maps, charts, and diagrams.
- ◆ **Body or kinaesthetic**, where some children learn through body movement, games, and drama.
- ◆ **Musical or rhythmic**, where some children learn best through sounds, rhyme, rhythm, and repetition.
- ◆ **Interpersonal**, where some children learn easily in groups through cooperative work. They enjoy group activities, they easily understand social situations, and they can develop relationships with others easily.
- ◆ **Intra-personal**, where some children learn best through personal concentration and self-reflection. They can work alone, are aware of their own feelings, and know their own strengths and weaknesses.



When children learn, they may use several pathways to help them to understand and remember. Therefore, it is important for us to use different teaching strategies that cover a mix of these learning pathways.

Shikha has tried to apply her understanding of multiple pathways to learning:

"From the topic of the lesson and what the children need to learn, I think through the seven pathways to learning and try to build around them activities that are relevant to the topic. For example, a topic in one of my social studies classes dealt with the seasons and seasonal fruits. The children and I wrote a poem on fruits, while some designed and produced colourful fruit masks. Each child chose a favourite fruit, put on a mask and played a fruit role. The children worked in groups and did some reading and writing as well.

A similar approach was used for the topic 'Occupations in our community.' Children named the different occupations, imagined, and role-played what they would like to be, discussed them in groups, read stories about them, and played a game matching pictures with tools. I always combine language skills in social studies lessons. I am still trying things out, and I need to get our local community to understand that learning is not restricted to the classroom."

We need to develop lesson plans and manage classrooms in ways that ensure active and effective learning for all children. We'll learn more about lesson planning in the next Booklet on managing inclusive, learning-friendly classrooms. But Shikha knows the importance of lesson planning.

"Without a doubt, lesson planning is more time-consuming now, but it is fun and a challenge to my creativity. It is sometimes also difficult to get the right kind of resources that I need, but I have learned to involve the children in designing the lessons. With a knowledge of what is needed, they bring materials from home. We also develop materials together in class, such as masks for a play, tools for different occupations, games, and poems."



### Reflection Activity: Improving Your Lessons

- ◆ Pick one lesson that you enjoy teaching but maybe your students are not performing up to your expectations. Alternatively, pick a lesson that you would like to teach more enjoyably.
- ◆ What are the major points (information) that you want the children to learn?
- ◆ What methods are you using to communicate this information? Why do you think they are not working? For instance, are the children only using one of the pathways of learning?
- ◆ What different activities can you use in your teaching so that children can use several of their senses (sight, sound, movement) in learning? What different pathways to learning do these activities entail? (See Shika's ideas above.)
- ◆ How can you incorporate these activities into your lesson plan?
- ◆ How can your children contribute to designing the lesson, especially those children who usually do not participate in class or those children with diverse backgrounds and abilities?
- ◆ Try out the lesson! If you feel comfortable in doing so, ask your students if they enjoyed the lesson. What activities did they enjoy the most? Can you use these activities to teach other lessons?

### Barriers to Learning

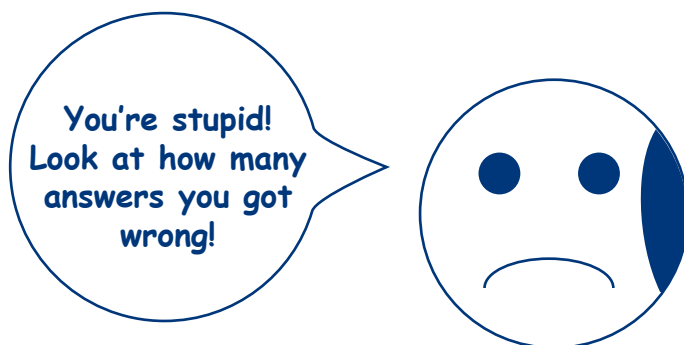
Can you remember a child in one of your classes who was unusually timid, didn't like to participate, never raised his or her hand in class, and also was not learning well? One of the reasons for this child's behaviour may be that he or she has low self-esteem. This child is not confident in his or her abilities, or he or she may think that they are not a valuable class member. Studies have shown a close relationship between how children see themselves and their learning performance. They found that a child whose

self-esteem is lowered by negative feedback (criticism) soon learns that it is better not to try. Rather than failing, the child just avoids the task.



### Action Activity: The Value of Self-Esteem

Take a piece of paper and draw a simple face. This is one of your children. Think of the things that adults might say to this child that may make him or her feel badly about themselves. For each example that you can think of, or observe during the week, tear a piece of the paper away.



It only takes three or four of these comments to tear away a child's sense of self-esteem.

**NOTE:** You can do this activity with children to help them understand the feelings of others and how their actions affect those feelings.

When we hear negative comments being made to children, we need to turn them into positive ones. For example, the negative comment, "Look at how many answers you got wrong!" could be changed to "Look at how many answers you got right! Let's find a way for you to get even more of them right next time. What helped you to remember the answers to the ones you got right?"

Before they will fully participate in learning, children need to believe that they can learn. Children are developing their self-esteem and their identity as they grow, and adults have a strong role to play in this growth.

Children can be damaged when their sex, ethnic backgrounds, or abilities are not valued, or they are used to make them feel inferior.

We cannot give children positive self-esteem, but we can provide the right environment and conditions for it to develop. ALL children should:

- ◆ feel that they and their contributions are valued;
- ◆ feel safe (physically and emotionally) in their learning environment; and
- ◆ feel that they are unique and their ideas are valuable.

In other words, children should be valued for who they are. They should feel safe, be able to express their views, and be successful in their learning. This helps children to enjoy learning, and teachers can reinforce this enjoyment through creating a more joyful classroom. Such a classroom is one where children's self-esteem is promoted through praise; where cooperative and friendly groupings are encouraged; and where children feel successful and have fun learning new things.



### **Action Activity: Improving Self-Esteem**

This activity can be done with teachers, students, parents, or others.

- ◆ Divide a large piece of poster paper or other suitable writing surface into three equal columns.
- ◆ In the left hand column, list situations in your classroom or school where students may NOT feel valued, safe, or unique.
- ◆ In the middle column next to each situation, list why you think that the outside environment or people make the children feel this way.
- ◆ In the right hand column, list what can be changed to make the children feel valued, safe, and unique, as well as how these changes can come about?

Use this activity as a starting point for developing action plans to improve children's self-esteem and learning in your classroom, school, and community.

## Children Actively Create Their Own Knowledge and Meaning

Children learn by linking new information with information that they already know. This is called mental construction. Talking and asking questions together (social interaction) can improve learning, which is why pair and small group work is so important.

Our role as teachers is not to pour information into children's minds; neither is it right to leave children to discover everything for themselves. We should actively find ways of supporting learning that use information that the children already know (their prior learning).

A child might be slow to adjust to learning in school, and he or she doesn't know what to say when you ask a question. In this case, you will need to establish a good relationship with the child so that you can understand how the child learns best. For example, what simple tasks can this child do? What letters in the child's name does she know and can copy legibly? Which numbers does she know and can associate with simple objects in the room? What are the special things this child likes and can talk about to the teacher, to another child, or even to a simple hand puppet in the classroom? Can this child sing or play games?

In addition, how can we relate school to the child's home and community?



### Action Activity: Linking Home and the Classroom

In the table below, list activities that your children may have learned at home and that they could also use in school.

How can you incorporate this information into your lesson plans? How can you involve your children in designing the lessons?

Name of child	What has this child learned at home?	How can this be used at school?

No child comes to school who has not learned anything at home or in their community. Whether in school or out of school, children respond to new situations in many different ways. Some of these ways will be useful in school, while others may not. It is our responsibility to find out what the child knows and what skills he or she has learned already. We can then build upon their knowledge and skills in teaching them new things. But to do this, we must closely observe our children and how they learn new ideas, skills, and values. In many cases, the experiences of girls will be quite distinct from those of boys.

In school, our children are faced with many tasks that may be very different from the tasks and problems they must solve during their play. Some children may never have held a pencil before; others may never have seen a book; still others may not speak the language that you and their classmates speak. Consequently, it is very important to build many links between what children already know and can do well and the new tasks that your classroom and lessons require. How can this be done?



**Action Activity: Building Links for Learners**

At a basic level, schools are expected to teach children how to read and to use numbers. When children come to school, and even on their first day of school, what are some simple activities that you can do so that your children will be successful in learning to read and use numbers? Here are some examples. Can you think of others?

- ◆ With children, label objects around the room with the names that we give them (in the language or languages that the children use), for instance, desk, chair, children's names on desks, chalkboard, numbers grouped with objects, etc. Which children can associate the objects with the words that stand for them?
- ◆ Make sure you tell each child at least one thing that they can do well.
- ◆ Write out the words of a song that children already know or can learn quickly. See who can guess which words are which. New words can be introduced within a song that children already know well. Singing is an important part of learning because it aids children's breathing; builds vocabulary, rhythm, and rhyme; and develops solidarity within the class.
- ◆ Be clear in giving directions in the classroom. Organize older children to help younger children understand the directions that you give.

You may have a child arriving in your class who cannot speak the language of the classroom. In this case, it is very important to find out what this child can do. It is useful if you can speak to the child individually, using his or her name, and in their own language. If this is not possible, seek out other children or even others in the community who can help you to communicate and to make the links between his or her language and your classroom activities. For instance, can you use a song in the child's native language to teach the child new words that are used in your classroom's language of instruction? The words to the song that the child already knows in her or his native language can be substituted gradually with those of your classroom's language. Can you use this song to teach all of your children about the value of different languages?

By creating simple tasks that children can successfully achieve, and especially at the beginning of the school year, even the most timid child will be off to a good start. They will be confident that school is a good place to be, a place where they can feel safe, and a place to explore and learn. It's LEARNING-FRIENDLY!

### Tips for Teaching and Learning

- ◆ Lessons need to be structured around “big ideas” rather than unconnected pieces of information. In this way, children have an umbrella under which they can fit new information with what they already know. A big idea can be something like “water is important to life,” and the topic could be “today we will learn how to keep water clean.”
- ◆ We need to consider children’s developmental needs. Some children will need more time to progress than others.
- ◆ We need to be facilitators of learning and recognize the unique characteristics of our learners. The learning environment should support all learners.
- ◆ Students need to talk together with their teacher and with one another during activities that are both individual and team-oriented.
- ◆ We need to plan activities that encourage ALL children to work as a team, such as working in pairs or small groups on relevant tasks.
- ◆ Students must be able to find the curriculum useful to them, be encouraged to ask questions and consider information, and be able to construct their own understanding of the subject matter.
- ◆ We need to ask good questions to allow students to explain their ideas. Rather than asking questions that require a “Yes” or a “No” answer only, we need to ask open-ended questions to allow children to express their views, ideas, and opinions; for instance, we can ask questions that end with “what do you think?”
- ◆ Thoughtful questions asked by the teacher and active discussion among students will stimulate children to search for information. Interacting with others, receiving new information, and reflecting on ideas help children to construct new knowledge.



**REMEMBER:** Before starting a new topic, you need to ask all of your children what they already know about the topic. Asking this question will help children to relate to the topic, if it is a familiar one, and help them to understand and learn more quickly. Much of their knowledge may have been learned outside of the classroom, such as in their homes and communities. This information will help us to link what they already know from everyday life to what new knowledge we are trying to teach them. Moreover, some children may be “experts” on certain topics, such as fishing or growing vegetables, and these children should be given opportunities to present their knowledge for the benefit of others in the class.

In addition, children will learn better through **cooperative** learning (“we can do this together”) rather than competitive ways of learning (“I’m better at this task than you because you are ....”). If organized well, small group work encourages children to work and learn together. This interaction is especially important when the groups contain both boys and girls or when they contain children with diverse backgrounds and abilities. Moreover, cooperative learning can improve discipline in class because children are working together rather than being disruptive. This gives us time to support individual children or smaller groups.



## Tool 4.2 Dealing with Diversity in the Classroom

### VALUING AND ENCOURAGING DIVERSITY

All classrooms are diverse because all children are unique. The diverse classroom can have positive benefits for all learners. Children have different experiences, skills, knowledge, and attitudes. All children can contribute and bring some ingredients to the learning "soup." The teacher serves as a facilitator who provides the right environment and opportunities for all children to learn actively.

Children (and sometimes adults) need to learn that diversity is a gift, not a liability. In Booklet 2 under Tool 2.2, we learned an activity called "Playing Favourites" where parents and even children learn what it means to be excluded and why inclusion is important for everyone. Similar activities, like the following, can be undertaken to help children and parents understand the value of diversity.



#### **Action Activity: Gift Giving - Getting to Know Each Other**

Teachers in a cluster group can use this activity when they meet for the first time. They can also use it when they meet their students at the start of a school year or even at the first Parent-Teacher Association meeting.

For this activity, participants work in pairs. They should ask each other open-ended questions to find out what special qualities each person has that would benefit the group. The final statement should be written on a small "gift card" and state something like:

"My friend's name is ..... and he brings the gift of patience."

"My friend's name is .....and she brings the gift of a sense of humour."

Each pair of participants then takes turns in presenting each other's skills to the entire group. They should talk about how these skills can benefit everyone. The teacher, or other facilitator, should also have decorated a box into which each participant drops his or her gift card after presenting their friend to the whole group.

This activity can highlight the need for teachers to value all children in their class, and that many personal qualities are not obvious to the casual observer. Our responsibility is to scratch the surface and discover the unique quality that each child possesses. We can then set up learning experiences that allow these qualities to be developed and used.



### **Action Activity: Yellow Pages - Getting to Know Each Other and Learning from Each Other**

In this activity, participants are organized into pairs and are asked to think about their talents, interests, or hobbies. They then describe to their partner some aspects of their interest and teach them something that they did not know. If possible, each participant should have a yellow piece of paper to write on. They should listen to their partner first and then write the talent or skill at the top, followed by their partner's name, and a few things that they learned about the skill. For example,

#### **Skill: Catching fish**

Jan Mouzinho

What I learned....

Better to fish at night.

Calm water is good.

Wait for the moon.

Different bait for different fish.

After the partners have finished talking about their interests, and depending on the time available, the facilitator can ask a volunteer to come to the front of the room. Other participants can then ask up to five questions to try to discover her partner's talent. Alternatively, the volunteer can act out her partner's talent, and others can guess what it is. The yellow pages can then be grouped on a board in clusters, such as all

gardening skills together, all skills in the arts, or all skills in sports together, and so forth.

### **What can we learn from these activities?**

In East Timor, teachers mentioned that:

- ◆ We learned to listen to each other;
- ◆ We got to know each other better;
- ◆ We learned to communicate better, verbally and non-verbally;
- ◆ We are a good team with many talents;
- ◆ We learned to ask open questions; and
- ◆ We learned from each other.

The facilitator can mention that one of the most important lessons is **we can see that everyone has a talent, and these talents can be used in our work as teachers and learners.**

Teachers must assume that every child brings something positive with them that they can contribute. However, the teacher must discover it. Children can also be peer teachers, and they can learn from each other.

## **INCLUDING DIFFERENT KINDS OF THINKING, LEARNING, AND KNOWING IN THE CLASSROOM**

In the previous Tool, we learned that **children learn in many different ways and at many different levels**; that is, there is diversity in learning. Consequently, we as teachers need to devise different ways of learning using different teaching methods, so that all children can understand the information we are teaching and can learn in a meaningful way, especially those with diverse backgrounds and abilities.

The range of teaching-and-learning activities in the classroom runs from memorization and repetition all the way to solving problems and thinking creatively.



In our classrooms, we can look for ways to address this entire range. For example, we can:

- ◆ **use blocks, models, and other objects to teach mathematics**, which taps into children's fine motor skills and their visual understanding;
- ◆ **invite children to talk about (or write about) ideas and processes in mathematics**, which links their verbal thinking to understanding mathematics concepts;
- ◆ **ask children to draw pictures for the stories that we read to them**, which connects their visual thinking to the words and events in the story; and
- ◆ **guide children in making maps of the area around school**, which links their experience of movement in space to visual and mathematical concepts. When children survey their community, identify problems within it, and use their skills cooperatively to suggest solutions to these problems, they are learning how to apply what they learn in school. Apart from being good education, this process helps the community to understand the work of the school, and they may be more motivated to support the work of teachers (see Booklets 3 and 6).

For your classroom to be fully inclusive, you need to make sure that the curriculum is accessible to and relevant for ALL children in terms of what you teach (content), how you teach it, how the children learn best (process), and how it relates to the environment in which the children are living and learning.

We also need to consider those children who have learning difficulties or show learning faltering. Are we planning for those children who may have difficulty with the standard curriculum, such as those children with visible physical, sensory, or intellectual impairments, or children from poverty-stricken families, or those who do not speak the language of instruction? Will the curriculum still be accessible to these children as well as others? How can we go about this?



### Action Activity: Observing Diversity

1. Write down the children in your class who have clear strengths in certain subjects, such as mathematics, writing, discussion skills, etc. Describe how these strengths are demonstrated in class.
2. Write down the children who have **other** talents that may be indirectly related to classroom learning. Is one child a good model maker? Does another show good coordination in sports and games? Does another have very good social skills? For instance, children with Down's syndrome often have very good social skills.
3. Now draw a circle on the page to represent the rest of the children in the classroom that you haven't linked to special skills or talents. In the next week, observe these children more closely. If you notice that one of them likes a certain activity, write it down. How does this activity or how the child performs it reflect his or her ways of learning? How can these ways be incorporated into your lessons?

In observing and dealing with diversity, we need to identify what provisions we can make, that is, the positive ways of helping children to learn, especially those with learning difficulties. We should not focus on what we have to "give up" (concessions), such as our time, but on the learning benefits for our children. For instance, can we ask another child to read to the child and be his writer? At the same time, can we identify what valuable skills a child with difficulties has, and how his or her partner can learn these skills? In other words, we need to establish a relationship where both children are able to contribute to each other's learning.

## CHALLENGES TO DIVERSITY

All societies are diverse. Having many different children with many different backgrounds and abilities in a single inclusive classroom is a reflection of society, and it does have its challenges. We need to consider what each child needs to learn and how he or she learns best. We need to discover how to get all children to want to learn together happily. Three challenges that can prevent children from learning together are bullying, prejudice, and discrimination. Learning how to deal with these challenges in an inclusive classroom is one of the most important jobs a teacher must do.

### Bullying

Bullying is one form of violence. In Booklet 6 on creating a healthy and protective school environment, we will learn other forms of violence that may exist in a school, how to map violence in the school, and how to develop effective school policies and activities against violence. In this Booklet, we will look at bullying specifically, since threats and fear can prevent children from learning in our inclusive, learning-friendly classrooms.

When we think of bullying, usually we think of one child or group of children (the offenders) threatening another child (the victim) oftentimes because the victim is different in some way. They may be better than the offenders in terms of learning (they get better grades); they may be from a different cultural group, such as having a different religion; or they may just be poor. The behaviour of adults and teachers, not just children, also can be considered bullying. There are several types of bullying; for example:

- ◆ physical bullying, such as being beaten by peers, a teacher, or caregiver;
- ◆ intellectual bullying where children's ideas are ignored or not valued;
- ◆ emotional bullying due to low self-esteem, harassment, embarrassing moments in school, or rewards withdrawn, which may be related to intellectual threats;
- ◆ verbal bullying, such as name-calling, insulting, repeated teasing, and racist remarks;

- ◆ indirect bullying like spreading rumours or excluding someone from social groups; and
- ◆ cultural or social bullying stemming from prejudice or discrimination due to differences in class, ethnic group, caste, sex, etc.

Bullying is usually some form of aggressive behaviour that is hurtful and deliberate. It can continue for weeks, months, or even years. Without help, it is often difficult for those being bullied to defend themselves.

In many societies, those who are different are often bullied. Their difference may be due to sex, ethnicity, a disability, or other personal characteristic. Although boys are often involved in physical bullying activities, girls may use more subtle, indirect forms of bullying, such as teasing, and they may bully in groups rather than individually.

The bullied child often does not admit that he or she is being bullied because they fear that the bullying will increase. For children who are being abused by an adult, they may be unwilling to admit it because they fear that adult and possibly adults in general.

For teachers, it is difficult to deal with bullying because it often takes place outside of the classroom, such as on the way to school or in the play area. However, the effects of bullying usually influence how well the abused child learns in our classroom.

We need to take bullying seriously and find ways of knowing the extent of bullying in our classrooms. Observation is a key skill, and we need to observe children during play as well as in the classroom. Children who are always on their own, who have few friends, or who are different in some way, could be targets for bullying. Signs of bullying include:

- ◆ children who suddenly lose confidence;
- ◆ children who avoid eye contact and become quiet;
- ◆ those who achieve poorly but were learning well previously; and
- ◆ those who begin to attend school irregularly or begin to have unexplained headaches or stomach-aches.



Discussions with parents and other caregivers are necessary, but we should be alert to changes in the children's behaviour. We should make our own notes in order to identify changes in children's patterns of behaviour that may reflect bullying.

It also is possible to undertake a survey to gain a picture of the relationships within the class or school. Two questionnaires are presented below. The first one is a quick checklist on bullying behaviour. The second one is a more extensive questionnaire to collect responses about relationships in and around the school and our classrooms.<sup>1</sup> You can ask your students to fill in the questionnaires anonymously (no names).

### 1. Occurrence of bullying

	Did not happen	Once	More than once
I was pushed, kicked, or hit on purpose.			
Other children told bad stories about me.			
I had things taken from me.			
I was called nasty names because I'm different in some way from the other children.			
I was called nasty names for other reasons.			
I was laughed at or insulted for no reason.			

<sup>1</sup> These checklists have been adapted from checklists originally designed by Tiny Arora and published in "Tackling Bullying in Your School: A Practical Handbook for Teachers," S. Sharp and PK Smith, editors. Routledge. 1994.

	Did not happen	Once	More than once
I was left out of a game on purpose.			
Someone was bad to me in another way.			

## 2. Relationships questionnaire

I am a boy \_\_\_\_\_

I am a girl \_\_\_\_\_

Age \_\_\_\_\_

Grade \_\_\_\_\_

During this week in school, another child:	Did not happen	Once	More than once
called me names which I did not like			
said something kind to me			
tried to kick me			
gave me a present			
was unkind to me because I am different			
said they would hurt me			
tried to make me give them money			
tried to frighten me			
stopped me joining their game			

<b>During this week in school, another child:</b>	<b>Did not happen</b>	<b>Once</b>	<b>More than once</b>
told me a joke and then laughed at me			
tried to make me hurt other children			
told me a lie and got me into trouble			
helped me carry something			
helped me with my class work			
was rude about the way I walked			
was nasty because of the colour of my skin			
played a game with me			
tried to break something of mine			

After analyzing the questionnaire's results, we can identify those who are willing to say that they are being bullied and those who may be the bully. Be cautious, however. Some children may be the victims, but they may not admit it even in this questionnaire. Since the questionnaire is anonymous, at least it will help you to understand the extent of bullying in your class. From this information, you can start to plan further actions with other teachers, parents, caregivers, and the children, themselves.

## Actions Against Bullying

To prevent or reduce bullying, teachers can take a range of actions:

- ◆ conduct exercises to help children to relax and reduce tension and using games to help children to get to know each other better and respect each other;
- ◆ increase the amount of cooperative learning within the classroom;
- ◆ improve the assertiveness of children by giving all students more power, such as by allowing them to make class rules and take responsibility within a student committee;
- ◆ increase responsibility within the class by establishing committees and to work more closely with parents and the local community;
- ◆ develop child-to-child strategies to deal with conflict in non-violent ways; and
- ◆ allow our children to identify what disciplinary measures should be taken towards those who bully others.

Teachers can also use drama or puppets to explore the extent of bullying, its causes, and solutions to it when it occurs in or outside of school. For example, teachers in Guyana made puppets and developed short plays to illustrate aspects of racial bullying. They then developed action steps that they could take to help children caught in these situations. Discussions or debates on sensitive issues can also be used along with stories or role playing to allow children to try to say "No!" assertively as well as to find the right language to use against bullies and abusers.

## Prejudice and Discrimination

Oftentimes, the roots of bullying are prejudice (unjust behaviours or opinions about people) and discrimination (unjust distinctions between groups of people; "they" versus "us"). One way to understand how prejudice and discrimination operate in our classrooms is through our own experiences.



### Action Activity: Understanding Discrimination

This activity can be done with teachers, parents, or older children. The purpose is to develop their understanding of how different forms of oppression (prejudice, discrimination) in schools affect individuals. In addition, this activity encourages a person to reflect on how he or she may have been affected by prejudice or discrimination.

Several important lessons can emerge from this activity, such as the following.

- ◆ Everyone can be both the victim of oppression as well as the oppressor.
- ◆ Individuals recognize prejudice and discrimination aimed at them, even at a very early age.

**Instructions:** The time required for this activity will depend on the size of the class or participant group. Allow ten minutes per student or per number of students in each small group.

Divide the participants into groups of five or six. Ask them to share a story about a time they saw prejudice or experienced discrimination in a school setting. A few hints and guidelines will be helpful.

1. The prejudicial or discriminatory practice did not have to be intentional.
2. Their experience can involve students, teachers, administrators, or just the general atmosphere of the school.
3. Mention that they might think about curricula, teaching styles, educational materials, relationships, or other aspects of the school environment.
4. Remind your participants that identity is multidimensional. Usually people think immediately about race or ethnicity in this activity. Try to help them to see other dimensions of

discrimination or prejudice, such as believing that girls are not good at science or that children with disabilities cannot play sports.

5. Finally, suggest that their experience can be either of being oppressed or of being the oppressor. Few people will ever choose the latter, but when someone does, it provides a powerful moment for reflection.

Allow each participant five minutes to share her or his story, and, if necessary, allow another five minutes for them to answer questions about their experience. It is important to learn about everyone's experience and to draw out how the incidents made the persons feel when they happened. You might also ask individuals how their experience has affected their own attitudes and practices or their own ideas about how the situation could have been avoided.

When everyone has had an opportunity to tell a story, you can ask several questions to start a discussion about prejudice and discrimination in classrooms and schools.

1. How did you feel about sharing your personal story about prejudice and discrimination?
2. What is something you learned either from your own experience or from someone else's story that might lead you to do something differently in your own teaching or daily life?
3. What were some of the connections you found among the stories? Were there any consistencies you found interesting?
4. Did anyone have difficulty remembering an incident or pinpointing when she or he first recognized prejudice or discrimination in a school setting? If so, why?
5. Did stories told by others remind you of additional incidents in your own experience?

## BIAS IN THE CURRICULUM AND LEARNING MATERIALS

Prejudice and discrimination can be reflected unintentionally in our curriculum and learning materials. This is the case especially for girls, children affected by HIV/AIDS, as well as other children with diverse backgrounds and abilities. For instance, children living or working on the streets may be depicted in school books or story books as pickpockets or thieves, and working children may be depicted as poor even though they may have many strengths, such as excellent social and survival skills. If our curriculum materials are inclusive of children with different backgrounds and abilities, they will be more sensitive to the diversity of children and their circumstances. They also will be more relevant to children's learning.

The same situation applies to materials that are inclusive of girls. As we learned in Booklet 3, the social roles assigned to women and men ("gender roles") may be different within a society. Traditional beliefs about the status and roles of men versus women can restrict girls' access to schooling. In communities where women are believed to be inferior to men, girls are often kept at home and away from school to do domestic work. Such roles, beliefs, and actions that discriminate against girls may be reflected in the teaching materials we are using. When girls see themselves represented in textbooks as being passive and boys active, they may assume that they too should be passive. This often leads to poor performance especially in mathematics and science. For example, girls may be discouraged or afraid to use mathematics materials or engage in science investigations because these may be regarded as "boys' activities."

Equity in curriculum design, therefore, is important for ensuring inclusiveness in the classroom. The teaching materials we use are inclusive when they:

- ◆ include **ALL** children, including those with diverse backgrounds and abilities;
- ◆ are relevant to the children's learning needs and abilities, as well as their way of life;
- ◆ are appropriate to the culture;

- ◆ value social diversity (for example, socio-economic diversity; poor families can be very good families for children; they may come up with creative solutions for problems, and they could be depicted as inventive);
- ◆ are useful for their future life;
- ◆ include males and females in a variety of roles; and
- ◆ use appropriate language that includes all of these aspects of equity.

How can you assess whether or not the materials you are using reflect gender and ethnic equity?

1. **Check the illustrations.** Look for stereotypes, that is, images or ideas about people that are widely held and accepted though they may not necessarily be true (such as men as “breadwinners” and women as “child care providers”). In the illustrations, are people of one cultural group or men the dominant characters? Who is doing what? Are children with disabilities passive watchers, or are they involved, such as playing ball with others? Do they look enthusiastic?
2. **Check the story line.** How are problems presented, conceived, and resolved in the story? Does the story line encourage passive acceptance or active resistance by “minority” characters (such as tribal peoples or persons with disabilities)? Are the successes of girls and women based on their own initiative and intelligence, or are they due to their “good looks”? Could the same story be told if the actions or roles given to men and women in the story were reversed?
3. **Look at lifestyles.** If the illustrations and text attempt to depict another culture, do they simplify or offer genuine insights into other lifestyles?
4. **Look at relationships.** Who has the power? Who makes decisions? Do women function in essentially supportive yet subordinate roles?



5. **Note the heroes.** Are the heroes usually from a specific cultural group? Are persons with disabilities ever heroes? Are women ever the heroes? Are poor persons ever heroes?
6. **Consider effects on child's self image.** Are there any suggestions that might limit any child's aspirations? This might affect children's perceptions of themselves. What happens to a girl's self-image when she reads that boys perform all of the brave and important deeds but girls don't?<sup>2</sup>

One way to begin looking at these issues is to use the following checklist to assess your learning materials in terms of equity and inclusiveness.

### Checklist for Assessing Equity in Learning Materials

Criteria:	Content		Illustrations	
	Yes	No	Yes	No
Are the roles of boys and girls balanced (such as doctor, teacher, field worker, trader)?				
Are the types of activities for boys and girls equal (such as sporting activities, reading, talking, working)?				
Do both boys and girls have similar behaviours (such as active, helping, happy, strong, productive)?				
Do girls sometimes take the role of leader?				
Are girls shown as confident and able to make decisions?				
Do girls act as "intelligent" as the boys?				
Are girls included in outside activities as much as boys?				

<sup>2</sup> Council on Interracial Books for Children. (1980) *Guidelines for Selecting Bias-Free Textbooks and Storybooks*. New York.

Criteria:	Content		Illustrations	
	Yes	No	Yes	No
Are girls and boys solving problems in the texts?				
Are girls and boys working together in a way appropriate to the culture?				
Are the topics interesting to girls?				
Are the topics interesting to minority children?				
Is there a gender balance in stories about animals?				
Are women described in history?				
Are women included in literature and art?				
Are ethnic minority people included in history, literature, and art?				
Does the language include girls (or are terms, such as "he" or "his", usually used)?				
Is the language appropriate for use in the local community (such as objects or actions that can readily be recognized)?				
Does the language encourage ethnic minority boys and girls to be interested in the text ?				
Are the words not discriminating against ethnic minority people?				

Books should reflect the diversity of gender roles, racial and cultural backgrounds, individual needs and abilities, as well as a range of occupations, income levels, ages, and family types (for instance, some single parent families).

If there is little choice in the books that are available in your school, then we must "correct" what we have and add details that are missing from the text. Perhaps you, your colleagues, and your children can draw additional illustrations to add to books to make them more balanced in terms of the roles of women, minority groups, and others with diverse backgrounds and abilities.



### Action Activity: Assessing Equity in Teaching Materials

Now that we have learned what to look for, take a textbook or reference book and try to analyze it using the points mentioned above. This would be a good activity for a group of teachers to undertake. Moreover, once the concepts are explained clearly, even older children can help to analyze the materials and make recommendations about how they can be adapted to become more inclusive. Parents or other caregivers may be able to help draw new illustrations to add to what you and the children have made and to correct some of the bias within learning materials using information and examples from local cultures. Use the table below to help your analysis.

Areas for analysis	What evidence? Which page?	What action to improve materials?	Any help needed?
Check illustrations			
Check the story line			
Look at lifestyles			
Look at relationships			

Areas for Analysis	What evidence? Which page?	What action to improve materials?	Any help needed?
Note the heroes			
Consider effects on a child's self image			
Diversity of characters			
Language			

## GENDER AND TEACHING

Teachers and schools may unintentionally reinforce gender stereotypes. We may:

- ◆ call on boys to answer questions more often than we call on girls;
- ◆ assign housekeeping tasks to girls and tool-using tasks to boys;
- ◆ reward boys for right answers and withhold praise from girls;
- ◆ criticize girls for wrong answers;
- ◆ give more responsibilities to boys than girls (such as being the head of the class or head of a group); or
- ◆ make use of textbooks and other learning materials that reinforce harmful gender stereotypes.

Moreover, many teachers may be completely unaware that they treat girls and boys differently. As teachers, we have a clear responsibility to create opportunities for all children, boys and girls, to learn to the best of their abilities.

Remember that it is not necessary to oppose ideas that are important to a local culture or community. However, it is necessary to understand how such ideas influence our teaching practices and the opportunities for learning that all children should have.



### Action Activity: Gender Equity

Either working alone or as a classroom activity, undertake a short survey to get a better understanding of your own school and community. In the table below, write down those jobs that are normally done by boys and girls in the home or local community (such as fetching water, cooking, looking after other children, or tending animals) and those jobs that teachers expect children to do in school (such as sweeping the floor or moving desks). Are the jobs we are giving boys and girls in school the same as those at home or in the community? Do these jobs reflect traditional beliefs about the roles of men and women? Do they stop girls from doing activities that they are fully capable of undertaking?

	Boys	Girls	Comments
Home or Community			
School			

Based on your survey, what actions can you and your students take that will ensure that ALL children have the opportunity to learn how to do certain jobs and to take responsibility?

What actions can you and your students take within the school and community to encourage school staff and community members to allow all children to participate equally and to contribute to their own, their school's, and their community's development?

## DIVERSITY AND DISABILITY

### Strategies for Students with Disabilities<sup>2</sup>

When we are creating inclusive classrooms and are trying to include children with a range of abilities, we need strategies to help these children learn to their fullest. Some of these strategies include the following.

- ◆ **Sequence.** Break down tasks and give step-by-step prompts or instructions.
- ◆ **Repetition and feedback.** Use daily testing of skills, repeated practice, and daily feedback.
- ◆ **Start small and build.** Break down a targeted skill into smaller units or behaviours, and then build the parts into a whole.
- ◆ **Reduce difficulty.** Sequence tasks from easy to difficult and only provide necessary hints.
- ◆ **Questioning.** Ask process-related questions ("how to") or content-related questions ("what is").
- ◆ **Graphics.** Emphasize pictures or other pictorial representations.
- ◆ **Group instruction.** Provide instruction or guidance for small groups of students.
- ◆ **Supplement teacher and peer involvement.** Use homework, parents, or others to assist in instruction.

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<sup>2</sup> Excerpted from: Swanson HL. (1999). Instructional components that predict treatment outcomes for students with learning disabilities: Support for a combined strategy and direct instruction model. *Learning Disabilities Research and Practice*, 14 (3), 129-140.

In addition, you can encourage other children to take responsibility for classmates with disabilities by pairing each child who has a disability with a child without a disability. Ask the partner to help with important activities; for example, assisting the child with a disability to get where he or she wants to go, such as the library, latrine, and so on, as well as assisting them on field trips or during team games. Explain to the partners that they might sometimes need to protect a child with a disability from physical or verbal harm, and tell them how best to do this.

Talk to your children about different disabilities especially ones that they may see in children at school or in the community. One way of doing this is to ask an adult with a disability to visit your class and talk with your children.

Explain to the children that disabilities are caused by diseases, accidents, or genes. For example, you can explain that an infection in the eye or ear can cause difficulty with seeing or hearing.

To help children without a disability accept children with disabilities, tell them stories describing what people with disabilities can do.

## **Children Who Have Difficulty Seeing**

### **Identifying Children Who Cannot See Well**

Some children cannot see as well as others. If this is discovered early, we can do a lot to overcome the problem. Moreover, children who suffer the most may be those with diverse backgrounds and abilities, because their inability to see well may antagonize their already difficult situation of being set apart. They are at even greater risk of teasing, harassment, and bullying. Hence, it is very important to find out if children can see well while they are still young. There are different ways of doing this. Other children can help to find out whether a child sees properly and learn to help them.

Some of the signs of a child who may not be seeing well are when the child:<sup>3</sup>

- ◆ bumps into things easily;
- ◆ has difficulty in reading objects that are close by or far away;
- ◆ has difficulty writing in straight lines;
- ◆ has difficulty threading needles;
- ◆ holds books very close to his or her face when reading and may have tears;
- ◆ may complain of headaches or itchy eyes;
- ◆ fails to catch balls when playing;
- ◆ wears clothes inside out;
- ◆ arranges items incorrectly; or
- ◆ brings the wrong objects when asked to bring something.

### Checking Children's Eyesight

Identifying as early as possible children who cannot see is vitally important for helping them to learn and stay in school. There are many simple techniques that you and your students can do to identify these children, such as the following example.

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<sup>3</sup> This section on "Children Who Have Difficulty Seeing" was adapted from: Baily D, Hawes H and Bonati B. (1994) *Child-to-Child: A Resource Book. Part 2: The Child-to-Child Activity Sheets*. London: The Child-to-Child Trust.



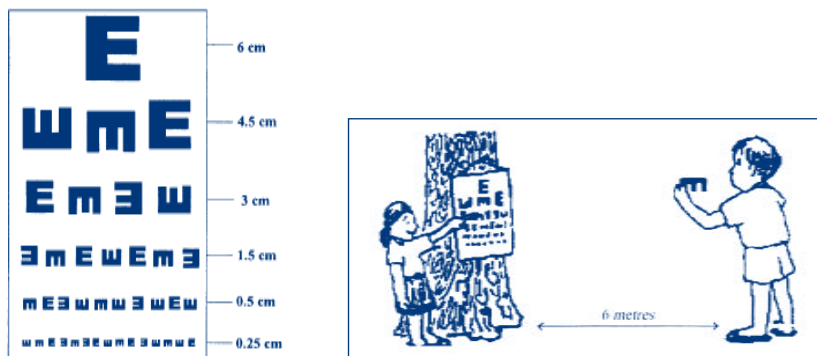
### Developing a Simple Eye Chart

**Step 1.** Make a stencil containing six "E" shapes, one that is 6 cm in height, and the others that are 4.5 cm, 3 cm, 1.5 cm, 0.5 cm, and 0.25 cm. It is very important to give each letter the correct shape. Each "leg" of the "E" should be the same size, and each space between the legs of the "E" should be the same size.

**Step 2.** Using the stencil or stencils, ask each child to make an "E" shape of the right measurement and to colour it black.

**Step 3.** Glue each 'E' onto a large white wooden board or a sheet of heavy cardboard. The chart should look like the chart below.

**Step 4.** Let the children test each other. Hang the chart where the light is good. Make a line on the ground six metres from the chart. The child being tested stands behind this line and holds a large cardboard "E." Test each eye separately while the other eye is carefully covered. Another child points to the shapes on the chart. The child should point to the larger letters first and then to smaller and smaller letters. **The child being tested must hold up his "E" in the same direction as the one being pointed to by his friend.**



**Step 5.** When the children know how to give the test, help them to think of ways to give the test to young children, especially those who will soon be going to school. At school, the children in higher grades can test the sight of those in the lower grades. Also, consult local health workers and eye specialists to see if a similar vision testing activity can be developed to fit your local language and culture.

## Helping Children Who Do Not See Well

When a child who has difficulty seeing first comes to the school, meet the child and the parents alone. Let the child know who you are by talking with the child and explaining what you are doing. Let the child touch you.

Next, introduce the child to his or her classmates. Explain that this child goes to school like everyone else, and he or she can do many things using their other senses, such as touch, hearing, and smelling. Suggest that while the child may need some help with specific tasks, they can all learn from each other.

Introduce the classmates to the child. If the child cannot see them, tell the child the names of some of the children. Let the child speak with each one of them until the child remembers their voices and names. Let the child touch them. Then tell the child the names of the other children so the child will begin to know all the children in the class.

Children with difficulty seeing usually do not know when people are near them. They cannot see which person they have met. When you are with a child who cannot see well, speak to him or her, so the child will know that you are there. Tell the children in your classroom to do the same.

Write on the blackboard using large letters, and teach your children to write in this way. Read out instructions; never assume that everyone can read them from the blackboard. Specify what is shown on visual aids (such as "on the left side is ..."). Allow children to feel teaching aids if they cannot see them; for example, maps can be outlines with string. Each child who has difficulty seeing needs a reader to help him or her. The reader will read and explain books to the child and help the child to learn. The reader can be a classmate, an older child, a friend, or a volunteer teacher.

A child who can partially see may be able to learn to read and write in the same ways that other children learn. Teach the child first to write letters and numbers. You can start to teach the child to write with chalk on a slate. Fix pieces of string across the slate so that the child can touch and use them as guidelines while writing. When a child begins writing on paper, fix the strings in the same way on a piece of wood. Teach the child to place the paper under the strings.

## Children Who Have Difficulty Hearing or Speaking

Children who have difficulty hearing or speaking often do not communicate, or they communicate poorly. This is because although we use different ways to communicate, we use hearing and speaking most often.

### Identifying Children Who Cannot Hear Well

Some of the signs that can tell us if a young child is having difficulty hearing include the following.<sup>4</sup>

- ◆ The child does not notice voices or noises if he or she does not see where they are coming from.
- ◆ The child is disobedient or is the last person to obey a request.
- ◆ The child's ears are infected, or liquid or pus is coming out.
- ◆ The child watches people's lips when they are talking.
- ◆ The child turns his or her head in one direction in order to hear.
- ◆ The child speaks rather loudly and not very clearly.
- ◆ Sometimes the child appears to be quiet and perhaps rude and prefers to be alone.
- ◆ The child may not do as well at school as he or she should.

### Communicating with a Child Who Has Difficulty Hearing

Some children who are born without hearing may not learn to speak. They should be taught other ways to express their thoughts, needs, and feelings, such as artistically or through movement and gestures. If there is a child in your class who cannot hear or speak, use different communication

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<sup>4</sup> Adapted from: Baily D, Hawes H and Bonati B. (1994) *Child-to-Child: A Resource Book*. Part 2: The Child-to-Child Activity Sheets. London: The Child-to-Child Trust.

methods with this child, such as speaking; hand, face, or body movements; or writing. Teach the other children to use different ways to communicate with the child.

Before speaking to the child, get the child's attention, so he or she will know that you are speaking. Make sure that the child can see you clearly. Stand in the light so that it falls on your face.

Children who have difficulty hearing or speaking are sometimes irritable. They may pay attention, or they may not listen carefully to what is being said. Observe them carefully. If they do not pay attention, find ways to make them interested in what you are saying. For example, seat yourself and your children in a circle so everyone can see each other's faces. This will help listening and understanding. Use visual clues to introduce the lesson, such as a picture, object, or key word.

Some children who have difficulty hearing can hear more clearly if others speak close to their ear. Find out if this helps the child you teach. If so, speak close to the child's ear when you communicate with him or her. Tell other children to do the same.

When you communicate with the child give him or her time to listen and to think. If the child responds by making sounds that are not proper words, repeat correctly and slowly the words the child has tried to say. Make sure that the child can see your face as you say the words correctly.

When you speak, move parts of your body to make what you say clearer to the child who has difficulty hearing. Also use your hands when you speak; for example, you may use your hands to show the size of objects.

Use movements and expressions as often as possible whenever you are with the child who has difficulty hearing. The child will then learn what these mean. Teach the other children to use expressions and movements to communicate with the child who has difficulty hearing.

Try to understand the different ways in which the child expresses himself or herself. Also continue using different methods of communication with the child to make him or her understand what you want.

Children who can hear some words should be taught to speak. Some children learn to speak clearly; others try to but only succeed in making certain sounds that can be understood. You may be able to get some help in developing sign language skills from non-governmental organizations, foundations, or educational institutions that specialize in assisting children with hearing impairments.

If hearing-aids are used, be aware that they amplify all sounds including background noise. It can also be hard to distinguish between voices if several people speak at the same time. Encourage children with hearing difficulties to sit with a friend who can take notes for them, so they can concentrate on lip-reading



### **Action Activities: Games and Exercises**

Games and exercises can be ideal opportunities to create a more inclusive classroom. Try to introduce ones that everyone can enjoy, such as the following.

Physical exercise helps all children to be healthy. When you organize exercise periods for your class, make sure that children with various backgrounds and disabilities join in as much as they can. For example, for children who cannot see to play ball games, put a bell inside or on the outside of the ball so that the children can hear the ball as it moves.

Some children are not able to play very active games. Include games for them which can be played with less effort or which are played sitting down. Moreover, most children enjoy music even if they cannot move or sing because of a disability. In addition, children who have difficulties in learning often enjoy music. Even children who cannot hear may enjoy music, especially if it has a rhythm that can be seen through body movements (such as dance), or if the instruments with which the music is played give off rhythmic vibrations that they can feel.

## Examples of Games

### Game 1. Learning by Looking

One child closes his or her ears with their fingers, while another child tells a funny story to the group.

Then one of the other children pretends to be the teacher. The "teacher" asks each child to answer questions about the story.



When the "teacher" has finished asking questions, he or she asks the child who had his or her ears closed to open them and listen. The "teacher" asks this child to tell the group what it felt like not to be able to hear the story very well. The child is asked to explain what he or she was able to understand from the faces and gestures of the teacher and the other children.

The child who can tell most of the story from reading the faces and gestures wins the game. Each child should have the chance to have his or her ears closed. This will help the children to understand the problems of a child who has difficulty hearing. They will then be able to understand the child's problem.

### Game 2. Learning by Touching

One child has his or her eyes covered and stands in the middle of a circle made by the other children.

One-by-one, the children in the circle go to the child with the covered eyes. This child touches the faces of each one of the others and tries to guess who each person is. Only one minute is allowed to guess the name of each child.



The child who can recognize the most faces of his or her friends wins the game.

Each child should have the chance to have his or her eyes closed. This will help the children to understand the problems of a child who has difficulty seeing.

## **HIV/AIDS AND DISCRIMINATION**

In the world today, an increasing number of children have contracted HIV/AIDS at birth from their infected mothers. Other children may be discriminated against or totally excluded from school because they live in a family where one member has HIV/AIDS. Another effect of HIV/AIDS is that many children may have lost their parents to early death from AIDS, and these children may be living with grandparents, other relatives, or on the street.

Two major issues face teachers in addressing HIV/AIDS in their schools. The first is the practical health issue of dealing with children who have HIV/AIDS. To do this, you need to be well informed about all infectious diseases, so you can talk about AIDS in reference to them. You can talk with local health workers and get up-to-date information especially in term of the prevalence of all infectious diseases in your area as well as AIDS. You may also obtain important information materials on HIV/AIDS that you can share with your colleagues and students. This information sharing can help to correct any misunderstandings about the disease and those it has affected. On the practical side, everyone at your school should participate in keeping the school a clean and healthy place for children. Supplies of latex gloves and chlorine bleach will be necessary to clean up of blood, vomit, and faeces.

The second issue is how to answer children's questions about HIV/AIDS including ones on sex, sexual health, and disease. You will feel more comfortable talking to children if you have thought about some of the questions that may arise in discussion, for example "How do people get AIDS?" and "What is a condom?"

When a child does ask you a question, try to:

- ◆ **listen** carefully;
- ◆ **take seriously** what they say;
- ◆ answer **at their level**; and
- ◆ be as **honest** as possible.<sup>5</sup>

If you don't know the answer to a child's question, don't be afraid to say that you will need time to find out the correct answer. If you are a teacher in a school where children are affected by HIV/AIDS, please read Booklet 6 in this Toolkit carefully. It has many suggestions and activities for teaching you, your children, and your colleagues important skills for understanding HIV/AIDS, as well as how you can teach children about preventing its transmission.

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<sup>5</sup> <http://www.avert.org/children.htm>





## Tool 4.3

# Making Learning Meaningful for ALL!

### LEARNING FOR LIFE

Earlier in this Toolkit we learned that one potential barrier to inclusive learning and getting all children in school is “value of education.” On the one hand, parents and children may not see how the information learned in school is meaningful for their daily lives. For parents that depend on their children to help earn an income, they and even the children themselves may feel that “learning to work” is more important than being in school.

Even for children who do not need to earn an income to support their families, they may feel bored in the classroom if they don't see the connection between what they are learning now and what they will become in the future. Hence, they may not value school and may not attend regularly, if at all.

Our challenge, therefore, is to create a learning-friendly environment, one that motivates children to learn by linking what they are learning to their interests and their daily lives. This linkage is important because as you teach your children, in their minds they are trying to link what they are learning NOW with what they have ALREADY learned in life, be it in the classroom, family, or community. How can we create this linkage? Let's look at a case example.

While driving through Manatuto, East Timor, three girls try to stop our vehicle by waving strings of small fish. We stop. The children, aged 8-11, rush to sell their silver catch for a few cents. It is 11 o'clock on a Friday morning. It is not a national holiday. Should these girls be in school? The question is, “Would they be better off in school?” They are actively learning...they are learning by doing...they are supporting their families with vital proteins or a little cash if they can sell the fish.

The District Supervisor, who was also in the vehicle, was disappointed that the girls were not in school, but he explained that if they were in school, they may be learning in a foreign language because their mother tongue is not taught in school. The schools have very few books and learning materials, so the children spend a lot of time listening to the teacher or copying from the board. The only book that the teacher can use is printed in Portuguese.

He continued to say that many teachers were not trained. Moreover, since there were no houses for teachers to stay in, they do not live in the local area. The teachers might not know that the children spend their time playing on the beach and fishing. The textbooks also include examples of activities like fishing from Portugal rather than Manatuto, and usually only boys are shown fishing while girls are doing the cooking. The District Supervisor said that they were trying to make changes in order to make schools more 'friendly' to both boys and girls, but it was difficult and would take time.

If the teachers in Manatuto knew the children better and were aware of the environment from which the children come, then they could adapt the curriculum to include more local topics and examples. They could ask some of the parents to come in and explain how they go about fishing, and they could bring in nets and other equipment that they use. Children could go home and draw the different fish that are caught locally and make a poster for the classroom wall. They could measure the weights and lengths of the fish and make a graph showing the various sizes of fish that have been caught. From these and other active learning activities, children would be more motivated to come to school, and their learning would be more meaningful for them and for their parents.



### **Action Activities: Linking Learning to Community Life**

Review the national curriculum and list its important topics on the basis of what your children have already learned and what you think they should know in relation to their daily lives. Try to link topics that fit with the

annual cycle of the community, such as the agricultural or fishing calendar, or topics that will help them survive, such as health topics.

Think about the children in your class and their community. Do you know about their parents' occupations? Do you know where most of the children live? Are many children absent from school? When are they absent? Do you know why? Does your school have a child learning profile containing this information (see Booklet 3)?

Consider the topics that you will teach this term and complete a table like the one shown here. List the topics, see how relevant the topics are to children's daily lives, and think of ways of making them more meaningful.

Topic	Links to children's daily lives	Ways to adapt the topic
Example: Trees in a rain-forest	The community in which the children live has a lot of trees or is located near a forest that is not a rainforest.	First study local forests by observing and doing practical activities that link science, mathematics, and language. Then make the connection to forests in the region and then finally globally like rainforests.
Your Example:		

## CREATING A LEARNING-FRIENDLY ENVIRONMENT FOR MEANINGFUL LEARNING

### Preparing for Meaningful Learning

"Meaningful learning" means that we link what is being learned (the topic or content) and how it is taught to the everyday lives of children and their families. As we all know, teaching is a complex activity. We must consider many things when preparing for meaningful learning. Above all, no one can make a child learn. Children will learn when they are motivated to learn.

They will learn when given opportunities to learn effectively and when they feel that the skills they have will lead to success. They will learn when they receive positive feedback from friends, teachers, and parents who compliment them on how well they are learning. How can we prepare for meaningful learning? Here are some questions to ask yourself in preparing your lessons.

- ◆ **Motivation.** Is the topic meaningful and relevant to the children? Are they interested in what they are expected to learn?
- ◆ **Opportunities.** Are the opportunities suited to the developmental level of the children? For instance, is the topic too hard or too easy for many of the children? Are the activities appropriate for both girls and boys? Are they appropriate for children with diverse backgrounds and abilities?
- ◆ **Skills.** Do the children have the skills to achieve the expected result?
- ◆ **Feedback.** Is the type of assessment and feedback given to the children designed to increase motivation to continue learning?



### Action Activity: Linking Learning with Children's Lives

Try again to think of a topic that you will be teaching. Add it to the table above. Can you make connections with any of the children's daily activities? For example:

- ◆ housework (preparing food, looking after brothers and sisters, cleaning);
- ◆ looking after animals;
- ◆ finding food by hunting, fishing, or gathering; or
- ◆ growing food and working in the fields.

## Creating a Meaningful Learning Environment

For meaningful learning to occur, the classroom should be learning-friendly. Learning-friendly classrooms encourage students to ask open questions, identify problems, start conversations, and discuss solutions with teachers, friends, and family. ALL children—boys and girls, as well as children from diverse backgrounds and abilities—feel confident and comfortable to participate fully.

In a learning-friendly classroom, you must play different roles. In the past, our role has been that of an “information giver.” But in order to help our children learn to their fullest, we must expand our role to that of facilitator, manager, observer, and learner. What do these new roles entail?

- ◆ **Facilitator.** We need to provide appropriate learning opportunities for children and encourage them to freely present ideas and talk about important issues in a constructive manner.
- ◆ **Manager.** To be a successful facilitator, we must plan well and carefully guide the discussions, giving every child a chance to express their views.
- ◆ **Observer.** Observation of the children as they work in a group, in pairs, or alone will help us to understand the children and to plan even more meaningful learning activities. For instance, can an activity that a pair of children is doing well be expanded into a group activity? Can the two children be the group’s leaders?
- ◆ **Learner.** We become learners when we reflect on our lessons and how well the children have been learning. We can then develop ways to make what is being learned even more meaningful. For instance, was one activity effective in helping children to understand a difficult topic or concept? Can this activity be applied to other topics and concepts?

## CREATING GENDER-SENSITIVE LEARNING EXPERIENCES

We learned in this Toolkit's Introduction that "gender" refers to the social roles that men and women are assigned within a given culture, such as "men as breadwinners" and "women as child caregivers." Gender roles are created by society and are learned from one generation to the next as part of the society's culture. Gender roles are not static because they change over time, similar to other cultural traditions and perceptions. Unfortunately, these roles can harm the learning of our children because they often restrict how girls and boys behave and what they are allowed to learn. The following case study is an example of how this can occur.

### Suan's Story

Suan lived in a village near Pakse, in Southern Laos. She was nine years old and in Grade 3. She enjoyed walking to school with her two brothers, Lee and Hing. She was a good pupil and tried hard in school, but she did not find school easy. Suan's difficulties were caused by what she had to do at home before she came to school. She had many duties to perform. Suan's sister had stepped on a mine while playing and lost one of her legs. She would often wake up Suan to comfort her as she still felt the pain. Each morning, Suan had to get up before the rest of the family to carry wood and light the fire. She had to pound rice so that it could be cooked. After that, she had to wash and feed her young sister. By the time Suan arrived at school, she was very tired. Her brothers were never asked to help at home. They only went fishing with their father on the weekend, so they had time to do their homework.

When Suan went to school, she tried very hard to concentrate. However, she found it difficult to pay attention all the time because she was so tired, and the topics she studied were very different from her daily life. The teacher often got angry with her, particularly one day when she fell asleep during a lesson.

After being scolded by the teacher, Suan decided to be absent from school. She thought it would help her parents if she stayed home every day to collect the water and firewood, care for her sister, and

learn about looking after the animals. So Suan started to miss more days from school, and finally she decided not to go to at all. She stayed at home every day and helped her mother. She did not finish Grade 3. Her brothers, Lee and Hing, both finished primary school. They could read and write and were ready to move on to junior secondary school.

Suan is just one example of how gender roles and duties can lead to marginalization and dropout among girls. Gender can also affect the learning of boys when they feel that school is meaningless and it is more important for them to work and support their families. Moreover, girls and boys are socialized into a way of thinking about themselves and what they can do. For example, you might hear "boys don't cry" or "girls shouldn't play rough games." In the same way, some girls may not feel confident in mathematics or science because they have been told that these are "boys' subjects." Yet, all children can achieve well given the right opportunities.

If we are to include all children in our inclusive, learning-friendly classrooms, then we need to ask ourselves: "Do all of my children have the time and energy to complete the tasks I have assigned?" One of the ways to help answer this question is to conduct a small classroom project on how much work girls and boys do at home. Ask your children to talk about or write a short story on "What I Do At Home." You might be surprised at how much work your children, especially girls, have to do for their families. You can then adjust your learning plans to fit the children's needs.



### **Action Activity: Raising Gender Awareness**

Here are two classroom activities you can do to raise gender awareness.

1. Discuss with children in groups (girls together, boys together, as well as mixed groups) what they think is expected of them because of their being male or female. What do boys and girls think of each other's roles or expectations? Do they see changes?
2. Ask boys and girls to identify characteristics of boys and of girls. Make two rows. In one row, list what is perceived as female characteristics. In the second row, list what is perceived as male

characteristics. When you are finished, change the word "female" to the row of male characteristics and the word "male" to the row with female characteristics. Ask the children to think whether these roles could also apply to the other sex? All of them or only some of them? Why? Hopefully, the children will come to the conclusion that all gender roles can be exchanged, except for the purely biological ones.



**Reflection Activity: Gender Awareness in Teaching**

Consider some of the following statements. Complete the table and work out what actions might be needed to improve the situation in your classroom.

Statement	Often	Sometimes	Never	Actions needed
I examine my learning materials to see if there are positive role models for girls and boys.				
I encourage girls to achieve well in mathematics and science.				
I use cooperative learning methods; there is no need for harsh discipline.				
Older girls who are achieving well help younger girls with mathematics and science.				
ALL children in my class are given opportunities to express themselves and achieve success in the core subjects.				



To help girls feel more at ease in school and to ensure equal opportunities for them, work with your colleagues and school administrators to undertake the following actions.

- ◆ Support the revision of learning materials and the elimination of gender and other biases (see Tool 4.2), such as the lack of inclusion of children with disabilities or of children of ethnic minorities in textbooks, or the stereotyping of poor children, street children, and working children. This is a task for the whole school to undertake, but individual teachers need to be aware and know how to take action. Just a sticker on a book can indicate that the book is biased in some way, and it can lead to constructive class discussions about inclusion (see Booklet 1).
- ◆ Introduce a more flexible curriculum and self-directed learning materials, since some girls may have many demands on their time, such as domestic work and care for siblings. Both boys and girls from poor families often find little time to do school work, since the family needs everyone's help to survive. Try to complete learning activities during school time, and allow a choice when homework is being given.
- ◆ Usually teachers speak more to boys than to girls in many primary classrooms. Remember to give time ("waiting time") for children to answer your questions. If you do not have a colleague to observe you in the classroom, you can try a participatory activity with the children to assess whether you treat boys and girls differently. For instance, ask each child to collect five stones (you may already have a collection for use in mathematics). Ask each child to put one stone to one side of his or her desk every time you speak to him or her, ask them a question, or allow them to answer. Together you can assess the pattern of interaction and discuss why this might be happening. What other strategies can you use to treat children more equally? What skills will the children need to learn so that they can participate equally?

All of these components will strengthen your ability to create a learning-friendly environment for boys and girls. We may need to use single sex groupings for some practical activities so that girls can develop their

confidence and not be dominated by boys. Later, mixed sex groups would be appropriate so that girls and boys learn to cooperate together.

Many of the above activities will need the support of parents or other caregivers. For this reason, these issues should be discussed at school committee meetings, and a practical action plan should be developed. It will help all teachers if school policies on such matters as discipline and gender bias are discussed and agreed upon by all teachers and parents.

## ACTIVE AND PARTICIPATORY LEARNING

Inside and outside the classroom, children are learning all the time. They should be active in their learning in order to practice what they have learned and gain competence. They should also be encouraged to work with **ALL** of the other children in their class, including those with diverse backgrounds and abilities. Cooperation encourages understanding and acceptance. Pair and small group work allow better participation and interaction amongst children and help to build independence as well as the ability to work constructively with others. Some examples of good learning opportunities include field visits and games for learning.



### Action Activities: Field Visits

In field visits, children go outside of the classroom, for instance, to the school garden, to a well or a community dam, or to a community centre. They can observe specific organisms or natural phenomena, as well as learn from experts (learn more about how such visits can promote better health and hygiene in Booklet 6).

### Field Visits to Support Group Work

In a visit to a community dam, for example, each group in a fifth-grade class can be given a set of assignments. Before going to the dam, group members can learn about the importance of water to human life and agriculture. At the dam, each group can be asked to: estimate the width

of the dam; map the area immediately affected by the dam; draw the different kinds of trees around the dam; or formulate questions while they listen to information offered to the class by a government engineer.

When the class returns from the dam, each group can use the information that they have gathered to prepare presentations or reports of their observations. They can also discuss the importance of the dam with their families.

In visits to the school garden, each group can perform a single task, with each task complementing the others. For instance, they can catalogue the types and estimate the numbers of insects; catalogue the kinds and numbers of plants; look for signs of mammals, such as holes, burrows, or gnawed roots; or map and measure the garden. In the classroom, the groups can add their reports to a class "garden reports centre" or create a class garden display. Depending on the nature of the field visit, you can undertake various actions before the field trip so that children will learn better while they are on the field trip. The actions that you can do in advance include:

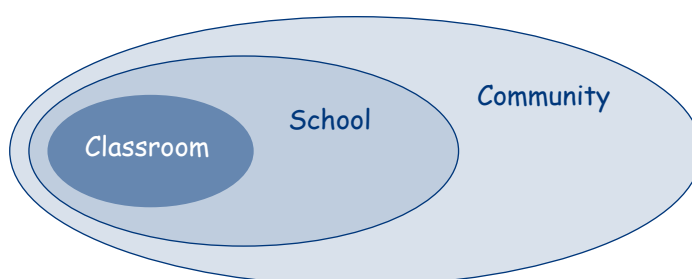
- ◆ conducting preparatory research, whole-class discussion, or inquiry about what the children might see during the field trip;
- ◆ obtaining assistance from helpers or family members to organize the field trip and participate in it;
- ◆ finding opportunities to listen to and interview experts; and
- ◆ assigning specific activities for groups, pairs, or individual students that will help them to understand what they will see during the field trip.

The field visit allows for meaningful learning. It also is an example of integrated learning where, for instance, research on the dam or garden involves mathematics, science, language, and social studies.

### **Circles of Learning**

This is a good activity to do by yourself in order to plan your lessons. It is also one that you can do with your students!

Identify all of the different opportunities for field visits within a short distance from your classroom. In the middle of a piece of paper, draw a small circle or oval to represent your classroom. Around it, draw a circle to represent your school. Around the school circle, draw a larger circle to represent your community, town, or district. Start with the school circle. Does the school keep farm animals or other types of animals? Is there a garden plot? Are there trees or fields? Are there bird nests or ant hills? Within the school circle, list the names of every learning opportunity outside the classroom. Are you able to create a new learning environment for children, for instance, a school garden?



Next, move on to the circle for your community, town, or district. Consider the shops and businesses that might be interesting for the children to study. Is there a farmer with special crops, such as citrus trees, or special animals? Is there a museum, a forest, park, or a field? Write the names of these learning opportunities in the circle.

Use the sites on your school grounds to help your class learn about appropriate behaviour outside the classroom and to learn how to work together in groups.

Remember those children who have walking difficulties or impairments. How will they have access to these learning opportunities? You may need to survey the route first. You also may need the help of parents or other students.



### Action Activities: Games for Learning

Children love to play games and, given the opportunity, they will make up rules for new games. In these games, they may use balls, bottle caps, stones, string, leaves, or other materials. Games that involve role-playing, problem solving, or use of specific skills and information are good ways to get children interested in what they are learning.

Games can incorporate active learning which can improve the children's communication skills as well as their skills in analysis and decision-making. Examples of such games include dominoes, bingo, and five questions (where children try to guess what an object is by asking only five questions). You and your students can design the materials for many games, and you can adapt the same game for different purposes and different grades.

These games and their materials can be changed to connect more directly to the curriculum. You can, for example, create domino cards with geometric shapes that can be matched with each other. For example, a square shape on one domino can be paired with a domino with the name of the shape in words (square).

**Learning Games.** Can you and your students create learning activities based on simple games? Here's how!

- ◆ Observe or discuss with your students what games they play outside. What rules do they use for keeping score? Do they sing songs or use rhymes? Are there different games for girls and boys? Why?
- ◆ Ask children to develop a book of games from which other children can learn. Can children research games that their older family members may have played when they were at school, or those that are a part of the local culture or cultures?
- ◆ Connect any of these games or activities to a topic that you teach, for example, mathematics.

Both field trips and games can motivate all children to learn. Here are some more ways to increase motivation.

- ◆ Use concrete examples from the local area that are meaningful to boys and girls as well as children with diverse backgrounds and abilities.
- ◆ Provide opportunities for these children to use what they have learned in their daily activities, such as fishing, growing rice, or collecting water.
- ◆ Use a variety of teaching methods that are interesting and involve children's active participation in learning.

## **MAKING MATHEMATICS, SCIENCE, AND LANGUAGE MEANINGFUL FOR ALL**

Mathematics, science, and language (reading and writing) are the core subjects in most of our schools. They are also the most challenging for children. In all of these subjects, children learn abstract concepts that may be difficult for them to understand, unless your children can link these abstract concepts to what they do in their daily lives. Once they make this connection and can understand an abstract concept, they can start applying it through one or several important skills. The following sections will give you some ideas about how you can make these subjects more learning-friendly for all of your students and more fun for you to teach.

### **Learning-Friendly Mathematics**

We use mathematics when we guess how long it will take us to walk home. We use mathematics to estimate how much water will fill a bucket, and how much three kilograms of potatoes will cost at the market. We use mathematics when we are selling fish at the side of the road. We use mathematics when we dance (numbers of steps), when we play music, and when we sing (use of rhythm and time).

In school, however, mathematics often seems to be unrelated to the activities we do every day. If we try, we can help children make the connections between mathematical skills, mathematical concepts and thinking, and the mathematics of daily life, such as that which is used at the market. For instance, role-playing, where children pretend to go to the market, can be fun and meaningful for children in learning mathematics. It is also an opportunity for children to develop confidence when speaking in front of a class.

### **Build Basic Skills Using Concrete Objects**

Young children can more easily understand addition, subtraction, multiplication, and division when they use objects, such as small stones, dried beans, shells, thin sticks, or fruit seeds. These objects can help make mathematics something that students can see or feel (for instance, for those children with visual impairments), not just think about.

When children see or touch and then move the objects themselves, they experience the processes physically, step-by-step, as well as mentally. Visual learners and those who learn by touch can benefit greatly by using such practical materials.

Remember, though, that girls may have less experience in using certain materials than boys, such as materials that are heavy. Make sure that boys and girls play with soft and hard materials (such as cloth and stone) as well as those that are lightweight or heavy. Girls and boys should be encouraged to participate in all activities so that they gain confidence in using their knowledge and skills. They will also improve their abilities to work with others who are different from themselves.

### **Use Objects with Different Shapes**

Differently shaped objects help children understand volume, dimension, and geometry. These objects can include cubes, pyramids, rectangular blocks, cylinders, and other shapes carved from wood or made by folding thick paper. Ask groups of children to explore the school and its environment to discover the range of shapes that are used in everyday life.

For example, a tin can is a cylinder, a brick has rectangular sides, triangles make the shape of roof supports, etc.

Teachers in East Timor spent half an hour during a workshop exploring the area around the school for geometrical shapes. They found boxes, hats, cans, balls, etc. and displayed them to illustrate the range of shapes that can be found in and around the school. In groups, they took one example and tried to work out the relationship of the lengths of the sides, the area, and the volume. They developed a formula that could be applied to other examples of the same shape. One group filled a cone with water to compare the volume with the volume of a cylinder. During training, learning about theory is not enough. Teachers need to apply theory in practical ways so that they can create meaningful lesson plans.

#### Use Different Teaching Methods: **DO**, **TALK**, and **RECORD**

In developing their mathematical skills, children need to be involved in doing practical activities; they need to learn how to talk about mathematics; and they need to record (write down) how they have tried to solve mathematical problems.

- ◆ The **DO** part of this process relates to the activity (for example, counting out the beans and then subtracting some).
- ◆ The **TALK** part is a discussion with a partner or in a small group, such as "I think it should be 6 not 5 because...."
- ◆ The **RECORD** part entails writing down the process of finding the answer, so that the teacher can talk with the child about other ways to solve the problem.

For example, children can be asked to measure certain shapes and work out perimeters and areas (**DO**). Each group can discuss their measurements (**TALK**). Each group's results can be combined with those of other groups and then written down to show the results of the entire class (**RECORD**). Class discussion is likely to follow.



For fractions, children can be given cut pieces of fruit or vegetables to help them visualize and understand halves and quarters (DO). They can discuss whether a half is bigger than a quarter (TALK), and they can learn how to write a fraction, for instance  $1/2$  (RECORD). Once again, using real materials like fruits and vegetables allows children to use several of their senses, such as sight and touch, and to link mathematics to activities in everyday life.

### Linking Mathematics to Daily Life

By making mathematics practical, you enable children to draw connections between simple operations and more complex ones. Focus on mathematical functions in daily life, such as calculating time and distance for travel from home to school, estimating the amount of space needed for a sports field, and estimating the cost of vegetables bought at the market. Because they are practical tasks, and because they focus on elements that are familiar to students, such problems develop mathematics skills using real objects, not just abstract ones.

Children can further build their understanding of mathematical concepts when they use language to describe the ways that they are applying mathematics. Give girls and boys frequent opportunities to write down or describe verbally, in their own words, each step in their solutions, and what each step means. As in other subjects, you need to observe children working, and talk with them about how they found their answers. You need to be patient and try different methods if a child is having difficulties.

You can help children with different learning styles and different learning needs by basing their mathematical understanding on a range of different activities, such as those they do regularly during the day. You can help them by using concrete objects and by describing mathematical concepts verbally, visually, and through touch. Consequently, we are ensuring that learning mathematics is meaningful for **ALL** children.



### **Action Activity: Mathematics and the Community**

List the different ways that your community uses mathematics; for instance, ask your children to undertake a simple survey on how mathematics is used in their homes. This is a good way to get them thinking. Begin with your own routines and activities, and list every way that you have used mathematics over the course of the last week.

Talk with your children or community members and find out if there are any local stories or legends that involve time or distance, or if there are any songs or dances with an interesting rhythm or timing. Incorporate these into your lesson plans.

Use local names and places so that children can better understand your questions. For instance, John walks from his home for half a mile to collect water from the community well. His bucket can hold 5 litres of water. How far does John have to walk with his full bucket to reach home? (Using this example, there could also be a discussion about the tasks boys and girls do within their families and communities).



### **Action Activity: Mathematics and Health**

There are many opportunities for children to learn about their health and development through practical mathematical activities.

- ◆ Children can measure their height and weight. These measurements are recorded on graphs for all the children and updated frequently. In Thailand's CHILD project, children in Grades 5 and 6 were trained to be "Growth Monitoring Promoters" who measured, monitored, and provided recommendations to improve their own and their friends' nutritional status.<sup>6</sup> Their information helped the school and local health workers to identify malnourished children so they could be enrolled in the school lunch programme (see Booklet 6).

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<sup>6</sup> For more information, see <http://www.inmu.mahidol.ac.th/CHILD/>

- ◆ An illness survey can be carried out in the class or school. For instance, children can record the number of their classmates who have had measles, ringworm, malaria, or another health problem during a certain time period. The results are given as a ratio or percentage. Actions can then be taken to prevent some of these illnesses.



### Reflection Activity: How Do I Teach Mathematics?

Analyze the way you teach mathematics by filling in the following table.

Methods/activities	I often do	Not very often	What I need to do
Encourage boys and girls to use practical materials.			
Link mathematical questions to health or community activities.			
Use a mathematics learning corner.			
Check learning materials for gender bias.			

### Learning-Friendly Science

When we study science, we explore the smallest building blocks of matter and life, such as atoms, as well as the farthest reaches of space. The difficulty is that we know that atoms and galaxies exist. However, we—including our children—don't see them everyday, and we don't think about them regularly. We also do not talk about them on a daily basis. Consequently, to make science learning-friendly, we need to strike a balance between what is real (what we regularly see, touch, or smell) and

what is known (abstract things, such as atoms and galaxies). By starting with what is real and linking science to what children see or do everyday, children can develop better communication skills. They can more easily talk about science and "real life." They can then work towards understanding and talking about ideas or concepts that are more abstract scientifically.

As in mathematics, science learning can be encouraged through concrete activities about such topics as: plants and animals, the human body, water and landforms, natural and man-made environments, sound and music, the solar system, etc. Moreover, labeling a drawing of a plant is a way of integrating writing and drawing skills, and it is an excellent form of communication in science. It is also a good step towards labelling other, more abstract, things like planets or internal organs of the body.

In all of these areas, the key is to discover ways that children can explore their own experiences with these topics. For example, to learn about sound and music, they can experience pitch and vibration using stringed instruments, even home-made ones. To learn about the solar system, they can observe the phases of the moon, or they can chart the movement of the sun by using a stick and measuring the angle of the shadow every hour of the day.

These kinds of concrete experiences can be supported by good introductions to scientific processes. In learning about science, students can practice their observation and questioning skills, and they can design experiments to answer their own questions.

Children can be introduced to the roles that science and the scientific method play in society. For example, when girls and boys experiment with how to dry fruit in a simple solar drier, or to make compost, they are learning good science while also finding practical solutions to community problems.

It is important that we as teachers learn important scientific concepts so that we can easily relate our children's daily activities to those concepts and help them to learn. For example, classifying is a key concept in science. Classification of living and non-living things is a good starting point. You can use rocks and vegetables as practical examples. One model for helping children to understand classification goes like this.

### Steps for Helping Younger Children with Classification

1. What do I want to classify?
2. What things are alike that I can put into a group?
3. In what ways are these things alike?
4. What other groups can I make? How are the things in each group alike?
5. Does everything fit into a group now?
6. Would it be better to divide any of the groups or to combine them together?
7. Can I draw a diagram to represent how I have classified the objects?

### Other Ways of Thinking and Knowing

In many communities and cultures, people have developed other ways of understanding nature and the world around them. These ways of understanding may be linked to social experiences or observations rather than scientific experimentation. Some children may become confused because the way that things are explained in school may be different from the stories that they have heard at home. For example, members of the community may know special herbs or other means for healing, or they may tell stories that explain the creation of the land around them that may not agree with the information in our textbooks. Yet, these stories are an important part of a community's culture and are taught from one generation to the next.

In East Timor, there is a story about an alligator (lafaik) that is linked to the origin of the island, which is shaped like an alligator. In class, this story leads to discussions about landscape, habitat, and life cycles, as well as other concepts, such as fear and danger.

Inclusive learning means embracing a diversity of ideas as well as a diversity of children and their learning styles. Children need to understand that there are many different ways to explain objects or events, and we are willing to accept different explanations without judgement. Young learners may have already learned stories, sayings, and even special ways of knowing and healing. As teachers, we need to find ways to respect these ways of thinking, while helping learners to gain an understanding of science as a specific form of knowledge.



### **Action Activity: Science and Daily Life**

Identify some of the ways that scientific knowledge can contribute to our understanding of the ways we live our lives. For example, water is a topic that can be explored in many ways, and it is vital for every person's life. By studying water, we can integrate different forms of scientific knowledge as well as link with other subjects, such as mathematics, language, and social studies. When we boil water to purify it; for instance, we are killing invisible micro-organisms that were unknown before scientists discovered them. When we use a hand pump to pump water out of a well, we are using a simple machine, the lever, to create a vacuum. When clouds form, lightning strikes the earth, and rain falls, we experience the forces of nature.

Design one new lesson that connects scientific knowledge and investigation to daily life.

- ◆ What resources will you use in teaching your students?
- ◆ Will learners be asked to frame a question? For instance, will the shadow formed by the stick at 9.00 a.m. be longer than at midday?
- ◆ What activity can they do to test their questions?
- ◆ What information resources, such as a textbook, can they use?
- ◆ How will you assess their understanding of the activity?

Topic	Practical investigation	Local materials used	Link to daily life	Assessment method

### Lesson Planning and Teaching

Practical science needs careful planning so that all children can take part in a safe way. Consider some of the topics within your science curriculum that can relate closely to children's daily lives.

When planning lessons, it is important to plan how the children will participate in their learning. Usually, this depends on the different teaching methods we select. One example of an effective teaching method is: **Think, Ink, Pair, Share**. This method encourages participation even among timid students or those who may feel left out.

- ◆ Ask children an open question, such as one that asks them to decide on something or express an idea.
- ◆ Ask them to THINK about their answer.
- ◆ Ask them to write (INK) notes about their answer (slates are useful for writing short notes in this method).
- ◆ Ask them to exchange their views with a partner (PAIR).
- ◆ Ask for volunteers (girls and boys) to SHARE the results of their discussions with the entire class.

This method ensures that all children have the opportunity to answer and discuss their ideas or answers. This is very important. Ask yourself, "In my classroom, are there children who almost always raise their

hands first to answer my question?" The problem is that as soon as these children's hands are raised to answer you, other children stop thinking. They may need a longer amount of time to prepare their answers, or they assume that other children will answer your question. Moreover, many children are afraid to express themselves, particularly if their mother tongue is not normally used in the classroom. Sometimes girls are disadvantaged by the way a teacher asks questions or if he or she usually asks boys to answer questions, such as those in science or mathematics. Hence, both boys and girls need opportunities to understand a question and to develop confidence in answering that question. The pair work presented in the teaching method above allows all children to practice correct vocabulary and to express their views with one other person. This exchange builds their confidence and encourages their participation in answering your questions or those asked by their classmates.

### Linking Science and Daily Life

Linking science with daily life makes it meaningful for children. It helps us to plan our lessons and organize our classes. One good way of doing this is to start with what the children already know using the KWLH method.

K	W	L	H

**K** - Stands for helping students recall what they **KNOW** about the subject.

**W** - Stands for helping students identify what they **WANT** to learn.

**L** - Stands for helping students identify what they have **LEARNED** as they read or conducted an activity.

**H** - Stands for **HOW** they can learn more (other sources where additional information on the topic can be found or more questions to be asked).



## Learning-Friendly Language Skills

Language skills are extremely important because they affect children's abilities to learn in all other subjects. Meaningful learning will take place if the language of instruction is meaningful. Sometimes the home (local) language will need to be used so that all children have access to information, can communicate their ideas, and can be understood in a meaningful way.

Talking, listening, reading, and writing are skills that need to be used and combined so that children develop an all-round language ability. Two actions that can help you are:

- ◆ creating opportunities for listening and for reading, because learners comprehend information and build understanding through both ways; and
- ◆ using pair and small group work to help children listen and express themselves. For instance, ask children to develop short plays. The plays will help them express themselves in their own language and learn about sequencing in a story (that is, this event happened, and then this event happened, and then finally this event happened).

You can create opportunities for children to listen by reading stories out loud to the class. You can also invite people from your community to visit the class and tell about their jobs, their lives, or the history of your area. Be sure to invite older people; they often have more stories to tell and more time to tell them. When people are invited, prepare the visitor first by explaining the purpose of his or her visit. Help girls and boys develop their social skills. Who will welcome the visitor? How do we welcome someone we do not know? How do we talk to an elder? Where will the visitor sit? How do we thank someone who has helped us? These are also good ways of practicing communication as well as social skills.

### Approaches Reading

Many parents worry about their child learning to read. This anxiety sometimes puts pressure on children and may make learning to read a

punishment instead of a pleasure. Reading is complicated, and there are many different ways of helping children to learn to read. Two approaches that are used are the **Phonics** approach and the **Whole Language** approach.

In the Phonics approach, a written word is broken down into its component letters. These written letters are matched with their corresponding sounds and then blended together to produce the word.

The Whole Language approach involves forming the meaning between the whole word and the spoken one, normally in the context of how the word might be used. The word might be presented in a short phrase, such as "One blue ball...".

Both approaches should be used because different learners will learn to read in different ways. To teach reading to a variety of learners, with different learning styles and backgrounds:

- ◆ use a variety of approaches;
- ◆ never separate skills from meaning;
- ◆ remember that readers learn to read and write because they want to communicate;
- ◆ know that learning to read takes place in a supportive environment where children build positive attitudes about themselves and the language; and
- ◆ read daily to small children to introduce them to reading for information and entertainment, and to show them that you enjoy reading too.

### **Other Ways to Support Reading**

Children should have appropriate books and articles to read, and these can be available in a special reading and writing area. If books are not available, you may be able to create your own books that present local stories and folk tales. (You can also create big books for reading to groups of students.) Other ideas include the following.

- ◆ Invite small children to tell stories about their observations of the world around them and about events in their lives such as holidays or family celebrations. They will learn how to sequence events in a story, as well as how to change the type of language they use depending on the story's purpose and its audience. If they have difficulties in writing, someone (such as an older child or a parent) can write down the story as the child speaks. The child can then illustrate his or her own story.
- ◆ Create a classroom "reading-and-writing" environment by posting charts of alphabets, pictures, word lists, and other information. These may come from stories, lessons, or the children's own work. You can also label different objects around the room. If there is little wall space, you can hang letters, words, and pictures on a string across the room. If there is a local newspaper, headlines, articles, and pictures can be displayed to illustrate the different uses of language.
- ◆ Mix language practice with other subjects. For instance, when children have developed skills in writing, they can write descriptions of plants or sources of clean water for science class. Invite them to write story problems for each other in mathematics, or they can write about how they solved a scientific question.
- ◆ Guide older learners in small group discussions, as well as dramatizations of stories from class, to give them an opportunity to frame ideas in their own language. By role-playing situations from school or by using puppets to focus on social issues, such as bullying, the children will also be developing their "emotional well-being" and how to handle difficult situations well.
- ◆ Give all learners the opportunity to write, to share their writing out aloud, and to talk about their writing. All writers benefit from reading their work to themselves while they are working on it as well as to others. Working in "writing pairs" can help your students to try out ideas and decide on the best vocabulary to be used. All except the earliest writers (young children who are just starting to write) can benefit from peer editing groups in which they read their work, share constructive criticism, and plan revisions.

## Tips for Teaching Writing

Teaching writing is important, but it is also difficult. If you give your children the chance to write often, and the chance to revise and refine their writing, you will be building the foundation for successful writing. Above all, make writing meaningful! Young writers, both girls and boys, can express themselves about topics that are important to them. These can include their families, special events in the community, topics in social studies, and so forth.

Children's writing should have a specific purpose and an audience. Children often are writing just for the teacher, but in life we use writing for many different types of audiences. We need to alter our writing style to suit the purpose and the audience; for example, a list, a letter, or a note for ourselves; or a poster or a story for younger children. This is meaningful writing. Here are a few other tips:

- ◆ Invite young writers to write freely without worrying about correctness. Children who are just learning to write can build language structures and expression even if they use imaginary spellings and strange punctuation. Imagined or made up spelling is a normal part of writing development. The child is "hearing" and trying to decide on what the word could look like. They need to use their own strategies first. Children need to try and work out spellings on their own. At the same time, they should be learning how to memorize and how to use a dictionary.
- ◆ Words should be learned in context either with a picture of the word, such as a "house or ball," or using the word within a phrase like "the yellow house" or "the purple ball."
- ◆ You can teach young children to spell in many ways, such as spelling out loud, spelling games, and crossword puzzles. However, when they write and become too concerned with correct spelling and punctuation, they may have difficulty building a deeper relationship with the language. Rather than correcting spelling, you need to be observing and writing down children's writing problems. You can then diagnose their difficulties and provide them with specific support in that area, such as how to use adjectives effectively or create meaningful comparisons (analogies).

The goal of writing is to communicate an idea well so that everyone understands it. The central rule for teachers of writing is to create opportunities for meaningful communication, such as the following.

- ◆ Invite young learners to dictate stories to a “scribe” who could be you, the teacher, a volunteer from the community, or an older student. (Remind the learner to be patient and speak slowly to the person who is writing.) The young storytellers can then illustrate their stories. This exercise builds a bridge between speaking and writing. This is also an activity we can use to help children who can see to learn about those who cannot see.
- ◆ Ask young learners to write about their lives and experiences. Whether it’s a visit to their grandparents or any other experience outside the classroom, young writers write best when they write about something they know well.
- ◆ Conduct short writing periods. For children under the ages of 8 or 9, they may become very tired holding a pencil or piece of chalk to make the letters, while they are also trying to focus on the message they want to communicate. Writing often, for brief periods, is much more effective than trying to write for a long period of time.
- ◆ Encourage young writers to keep journals or diaries to help them structure their thoughts. Journal writing is important because it’s not public. For the writer, it can be a chance to write in a very free way. For this reason, if you are planning to collect and review children’s journals, you tell them so in advance.
- ◆ Give writers the chance to revise their writing. Professional writers may spend up to 85 percent of their time revising their first drafts. In classroom writing assignments, it’s important to encourage students to write freely and in their own words. They should try to cover all of their thoughts on a topic. (Revision is more important for students over the ages of 8 or 9 who have begun to write more naturally to express themselves.) Give comments on their ideas and the sequence of their story. Show them how to use a dictionary so that they can learn to correct their own spelling or perhaps with a spelling partner.

- ◆ Allow opportunities for every imaginable kind of writing. When older learners write about how they solved a mathematics or science problem, or about how the weather affects the lives of their family members, they are using writing as an effective tool.
- ◆ Publish writing to make it meaningful. Girls' and boys' writing can be "published" on classroom walls or made into simple books. It can also be shared with learners in other classes, with families and the community, and with friends. When learners write letters to a community leader or a visitor—whether to ask questions, offer opinions, or simply express appreciation for a visit—they have the opportunity to write about things that are important to them and that have a real purpose and an audience.



### Reflection Activity: Teaching Language Meaningfully

Think about your current teaching practices and your children.

- ◆ Which ways of using language receive minimal attention in your classes? How can you improve this situation?
- ◆ Do you give opportunities for children to talk together in pairs and discuss in groups of four?
- ◆ How can you make learning and using language more interesting, relevant and meaningful?

An NGO in Bangladesh, Working for Better Life (WBL), organizes student debates about issues that children feel are important and are affecting their lives. They learn how to debate; they find out about the issues; they write about them (or make drawings or posters); and they inform other, younger children in their schools. Sometimes parents participate in the debates, or teachers or schools debate amongst each other. One group of students was able to get teachers to stop smoking in school and in their classrooms!

Based on articles in <http://www.workingforbetterlife.org/index.htm>



## Tool 4.4 What Have We Learned?

### LEARNING ABOUT LEARNING AND LEARNERS

- ◆ All children can learn, but they learn in different ways and at different rates.
- ◆ As teachers, we need to provide a variety of learning opportunities and experiences for children.
- ◆ Children learn by linking new information with what they already know. This is called mental construction.
- ◆ We must also help parents and other caregivers to support children's learning, so children know how to link what they learn in class to their home life, as well as how to link what they learn at home with what they are learning in class.
- ◆ Talking and questioning together (social interaction) strengthens learning, which is why pair and small group work, if well organized, is very important.

As well as knowing more about how children learn well, we reviewed some of the barriers to children's learning. One major barrier is low self-esteem. Low self-esteem reduces children's motivation to learn and can have damaging effects on their cognitive and social development. Self-esteem can be promoted through an improved learning environment. This environment is one where appropriate praise is given when children are successful, where efforts count as much as results, where cooperative and friendly grouping is encouraged, where children know that they are cared for, and where they will be supported when learning.

## DEALING WITH DIVERSITY IN THE CLASSROOM

In this Booklet, we explored ways to make the curriculum accessible and relevant for ALL children in terms of what you teach (content), how you teach and how children learn best (process), and the environment in which the children are living and learning. When planning lessons it is necessary to think of these three areas: **content**, **process** (such as teaching methods), and **environment**.

We also looked at **threats** to children's learning and at bullying in particular. We must remember that:

- ◆ threats from and fear of others (teachers, parents, and other children) can prevent children from learning;
- ◆ differences, such as ethnicity, religion, and social class, can be used by bullies to justify their bullying;
- ◆ observation is a key skill for any teacher, and we need to observe children during play and in the classroom to identify poor social relationships between children that could threaten their learning; and
- ◆ once teachers have assessed their situation, they need to be **proactive** in preventing opportunities for bullying rather than **reacting** to a situation after it has already occurred.

**Prejudice and discrimination** are also barriers to children's learning. They can be reflected unintentionally in our curriculum and learning materials. This is the case especially for girls as well as children with diverse backgrounds and abilities.

We have included a checklist to analyze textbooks for bias. Are you able to review your textbooks and learning materials for bias or unintentional discrimination? What actions will you take when you find it; for example, can you provide new illustrations?

Children with learning difficulties can be provided with an environment where they learn how to help themselves. Are you aware of those children



who, for whatever reason, have difficulty learning? What actions can you take to help them? Some will need understanding and support from other children, but the goal is to provide learning activities that they can have easily access without asking for help.

In many countries, children with HIV/AIDS or those who live in families where a member has HIV/AIDS can suffer discrimination. Do you know enough about HIV/AIDS in your community? Have you discussed sensitive issues, such as HIV/AIDS, with other teachers?

## **MAKING LEARNING MEANINGFUL FOR ALL**

The key idea in this Booklet is how to make learning more meaningful for all children. We need to make learning meaningful so that all children will want to come to school, will be motivated to learn, and will know that what they learn is relevant to them.

You will need to link issues in your local area with the curriculum and topics you are teaching. Allow children to bring into the classroom the knowledge that they and their parents already have.

Meaningful activities include pair and small group work outside of the classroom, where children can explore and understand their own environment.

Making learning meaningful may require adapting the national curriculum to fit the local context of your school. This can be done more effectively through work with other local teachers.

Have you been able to adapt textbook examples and activities to relate better to your local area?

The core subjects in school are mathematics, science, and language. You can motivate children to want to learn these subjects by developing and playing games. Mathematics and language games can make learning fun as well as meaningful. If you are able to work with a group of teachers or parents, then several games can be developed for use in the classroom.

**Mathematics** can be made more meaningful by using practical materials and solving problems that are common in everyday life. These problems can relate to measurements and calculations around the school, at home, or at the market.

In **science**, concrete experiences help children to understand scientific concepts. In learning about science, students can practice their observation skills. They can be encouraged to ask questions and plan experiments to explore different answers to their own questions.

By investigating their local area, children can be introduced to the role that science plays in society. They can find practical solutions to community problems while learning valuable scientific concepts and skills.

Have you been able to find time to allow children to investigate problems rather than just learn the answers from the textbook?

We considered different teaching methods, such as "Do, talk, and record" and "Think, ink, pair, share." These methods help children interpret their ideas together, improve understanding, and increase their participation in class.

Are you able to use different teaching methods in science and mathematics? Do you have practical materials in your classroom for children to explore scientific and mathematical concepts?

**Language** is not just a subject; it is a range of skills that children need in order for them to access the curriculum and to help them think and learn. They need to be able to talk, listen, read, and write in as many situations as possible. We can develop these skills in all subjects.

Are you able to make language learning meaningful by providing opportunities for language learning in science and mathematics?

## WHERE CAN YOU LEARN MORE?

The following publications and Web sites are valuable resources for creating inclusive classrooms.

## Publications

Baily D, Hawes H and Bonati B. (1994) *Child-to-Child: A Resource Book. Part 2: The Child-to-Child Activity Sheets*. London: The Child-to-Child Trust. This is an excellent resource for activities that children can undertake in terms of understanding child growth and development, nutrition, personal and community hygiene, safety, recognizing and helping those with disabilities, disease prevention, safe lifestyles and understanding children in difficult circumstances.

Council on Interracial Books for Children. (1980) *Guidelines for Selecting Bias-Free Textbooks and Storybooks*. New York.

O'Gara, C and Kendall N. (1996) *Beyond Enrollment: A Handbook for Improving Girls' Experiences in Primary Classrooms*. Washington, DC: Creative Associates International, Inc. for the ABEL 2 Project, US Agency for International Development.

Seel A and Power L. (2003) *Active Learning: A Self-Training Module*. Save the Children UK, London.

Sharp S and Smith PK (Eds.). (1994) *Tackling Bullying in Your School: A Practical Handbook for Teachers*. Routledge.

Swanson HL. (1999) Instructional components that predict treatment outcomes for students with learning disabilities: Support for a combined strategy and direct instruction model. *Learning Disabilities Research and Practice*, 14 (3), 129-140.

UNESCO. *Guides for Special Education*. Paris.

UNESCO (1993) *Teacher Education Resource Pack: Special Needs in the Classroom*. Paris.

UNESCO (2001) *Understanding and Responding to Children's Needs in Inclusive Classrooms: A Guide for Teachers*. Paris.

UNESCO Asia and Pacific Regional Bureau for Education (2003) *Gender in Education Network in Asia (GENIA) A Toolkit for Promoting Gender Equality in Education*. Bangkok.

## Web Sites

Bullying. No Way!

<http://www.bullyingnoway.com.au>

BULLYING—the no-blame approach.

<http://www.luckyduck.co.uk/approach/NoBlame-HowItWorks.pdf>

Bullying and gender.

<http://www.bullyingnoway.com.au/issues/gender.html>

Countering discrimination.

<http://www.esrnational.org/sp/we/end/stereotypes.htm#prejudicesituations>

Diversity and disability. Inclusive Education Training in Cambodia.

[http://www.eenet.org.uk/key\\_issues/teached/cambodia\\_contents.shtml](http://www.eenet.org.uk/key_issues/teached/cambodia_contents.shtml)

Gender in Education Network in Asia (GENIA) A Toolkit for Promoting Gender Equality in Education.

<http://www.unescobkk.org/gender/gender/genianetwork.htm#toolkit>

Meaningful, engaged learning.

<http://www.ncrel.org/sdrs/engaged.htm>

Multiple intelligences. Pathways to learning.

[http://www.thomasarmstrong.com/multiple\\_intelligences.htm](http://www.thomasarmstrong.com/multiple_intelligences.htm).

<http://www.educationalvoyage.com/multiintell.html>

Partnership on Sustainable Strategies for Girls' Education.

<http://www.girlseducation.org>

UNICEF Teachers Talking about Learning.

<http://www.unicef.org/teachers>

Working for Better Life.

<http://www.workingforbetterlife.org/index.htm>