MODERN TEACHING METHODS FOR TEACHERS

Practical guide to active learning methodologies

CZECH REPUBLIC
DEVELOPMENT COOPERATION

PEOPLE IN NEED CZECH REPUBLIC

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PRACTICAL GUIDE TO ACTIVE LEARNING METHODOLOGIES

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ABOUT PEOPLE IN NEED

Founded in 1992, **People in Need (PIN)** is a Czech non-governmental organisation that provides relief and development assistance around the world. Apart from extensive work abroad, People in Need implements social integration, awareness raising and educational programmes in the Czech Republic. PIN is one of the largest organisations of its kind in post-communist Europe, and has administered projects in thirty-seven countries over the past twenty two years.

In Ethiopia, PIN has worked since 2003 to improve life through sustainable solutions implemented by local partners. PIN builds the capacity of local institutions to empower themselves to affect change. Since its establishment PIN has been active in 5 areas of intervention: education; water, sanitation and hygiene; livelihood and environment; social development and humanitarian assistance and resilience building. PIN has been operating in Southern Nations, Nationalities and People's Regional State, Addis Ababa City Administration, Amhara, Oromia and Somali Regional States.

In the education sector, PIN focuses on improving both access to and quality of education. The Czech public participates in the fundraising campaign Let's build a school in Africa, which has so far enabled the construction of an additional 20 primary school blocks. Additionally, PIN supports cluster schools, develops teaching aids and conducts various teacher training programs promoting modern teaching methods. Over 4800 teachers, students, principals, education officials and lecturers have participated in this training.

Education has been PIN's priority since the very beginning of its mission to Ethiopia, and will continue to be so as PIN believes that education is the key to any country's development.

CONTENTS

INTRODUCTION

Access to and quality of education have been a long-term priority of the Ethiopian government and great improvements have been achieved in this regard. As for quality of education, the current education and training policy gives due attention to pre-service and in-service teacher training offered at all levels of the education system. The focus on quality of education is further proved by the introduction of General Education Quality Improvement Program (GEQIP) by the Ethiopian government. Emphasis is given on **active learning strategies** in the teaching and learning process and various attempts have been made by the government, NGOs and other stakeholders to familiarise teachers with the theories and practice of **learner-centred methods** and integrated approaches, which have in various socio-cultural contexts proven to enhance the learner's ability to learn.

In line with these efforts, People in Need prepared this publication, which is based on years of preparing and conducting in-service training. It offers a complex overview of active learning and other related strategies and demonstrates in a very straightforward and understandable way how teachers can use these methods in class.

OBJECTIVES OF THE PRACTICAL GUIDE

As the title "Practical guide" indicates it attempts to serve teachers and educators as a hands-on tool for introducing active learning methods in their class.es. All methods, model lessons and practical tips presented in the guide are derived from classroom experience and have been carefully selected according to their applicability in the context of Ethiopian schools.
The practical guide was primarily developed to support teachers and education leaders who participate in PIN modern teaching methods training. The guide provides an overview of methods and approaches that the training participants have experienced at the training sessions. They will use the guide as a reference when planning their lessons and working on their CPD assignments with their colleagues. However, given the simplicity and applicability of the guide, it can be helpful for any educational practitioners (incl. teachers and school staff) who are interested in active learning and in developing key competencies of their students across different subjects.

Authors of this guide define **modern teaching methods** (MTM) as a variety of learner-centred approaches that promote literacy and development of life skills such as communication skills, lifelong learning skills and critical thinking skills in the context of the culture and indigenous knowledge of the Ethiopian society.

CONTENT OF THE PRACTICAL GUIDE

The Practical guide consists of 5 main sections: **Basic information about MTM training** describes the practical aspects of PIN MTM training, its principles and requirements and it is especially useful for training participants. The section **Theory and principles of effective learning** explains in a clear and concise way the theoretical basis and principles the Practical guide and the PIN training stand on. Furthermore it is supplemented with practical recommendations on how to turn theories into classroom practice, how to develop critical thinking in your students etc. **Description of individual methods** is the cornerstone and the key component of the guide. Apart from step-by-step instructions on how to use 16 selected methods, it also offers a handful of practical tips and examples of classroom situations to reduce challenges and encourage teachers when trying for the first time. The **Assessment methods** section presents a broad portfolio of approaches to the continuous assessment of student performance. It is more a taster or introduction that lays solid foundations than a detailed guide to student assessment techniques. Teachers interested in the topic might want to refer to more advanced training modules of PIN for more directions. A selected of four real-class **Model lessons** form the next section. It illustrates practical application of active learning methods while teaching various topics, at different grade levels and using official textbooks. It demonstrates that it is possible to use MTM in various contexts of Ethiopian schooling. Moreover it will inspire and encourage teachers to try out the model lessons with their students.
Last part of the manual consists of a selection of **Icebreakers** and games for various classroom situations.

THEORETICAL BASES OF THE PRACTICAL GUIDE

The overall approach of this guide is based on the **socio-pedagogical constructivist theory of learning,** which assumes that **all learners are unique** and the most effective way to build their knowledge is through **connecting the "old" with the "new" in a meaningful way**. If this occurs, learners are more likely to understand the content and also to use acquired knowledge in their everyday life. **Socio-pedagogical constructivism** also argues that information is remembered and understood better if it is gained through an **active learning process** that encourages learners to build their own knowledge structures.
One of the practical tools produced by this theory is the **ERR framework of thinking and learning** (ERR stands for Evocation, Realisation of Meaning and Reflection). This simple framework helps teachers convey knowledge in a very effective way and is often referred to in the manual, where it serves as the foundation for organising the methods and delivering the content.

FINAL COMMENTS

People in Need and the authors of this guide hope that teachers, trainers, students and all other users will find it helpful. Serious efforts are being made to continuously improve the manual and increase its adaptability to the local education environment. One of these efforts was the translation of the manual into Amharic. The Amharic version is currently successfully used during in-service training conducted by PIN. The Manual presented to you is a general one, applicable to a wide range of subjects, be it humanities, natural science or aesthetics.

1

PART

PART ONE: BASIC INFORMATION ABOUT MTM TRAINING

INTRODUCTION

This part mainly introduces you to the major requirements for successful completion of the training program. It contains objectives, principles and requirements of the training. In addition, a description of how to set a ground rule is included.

The objectives guide activities that you do during the training. We encourage you to occasionally look at these objectives throughout the training and evaluate your progress towards achieving them.

The principles of the training communicate the focus and values of the training. Keeping these principles in mind will help you recognise what you can contribute for the success of the training.

There are requirements for successful completion of this training program. These requirements are communicated at the outset not only to notify the requirements but also to help you adjust your situation and successfully complete the training.

Finally, a description of how to make rules and procedures is included. This description will guide the way ground rules are set for the training. It will also provide you with first-hand experience on how to make rules and procedures with your students.

OBJECTIVES AND PRINCIPLES OF THE TRAINING

OBJECTIVES OF THE TRAINING

At the end of the training participants will be able to:
1. Integrate active learning methods into teaching and the learning process.
2. Identify the roles and activities suggested in the ERR framework of thinking and learning.
3. Apply performance-based continuous assessment and evaluation procedures.
4. Develop a professional teacher portfolio to be used as a reference for their future teaching and as proof of their capacity development.
5. Seek new impulses, ideas and inspiration for enhancing their teaching practices.
6. Become self-reflective professionals.
7. Promote the use of active learning methods in their schools through sharing their knowledge and skills.

PRINCIPLES OF THE TRAINING

1. Using effective methods of teaching-learning is the central focus of the training. This means that the training is based on each participant's activities. Participants have firsthand experience with each method. Through this, participants get greater opportunities to understand and master the methods.

2. Regular and frequent reflection of what was going on is part of the training.

3. Needs and capabilities of participants are respected throughout the training. The content and pace are adjusted to suit the participants.

4. The real school situation is taken into consideration. The training incorporates different methods which can be applied in large classes with limited material resources.

5. Enough time is provided for participants to think about the integration of methods into their current practice. During the training participants plan and implement the plan in their respective schools. In this way the implementation is supported.

6. The training is based on a partner approach between the trainees and the trainer.

References: Košťálová, H. Training of Modern Teaching Methods. People in Need. 2005.

REQUIREMENTS FOR CERTIFICATION

Modern teaching methods training is meant to enable teachers to exchange their experiences and to gain new knowledge and skills on varieties of active learning methods and other important theories and principles of learning. In order to assure achievement of this main goal of the training, it is important to employ full interest, motivation and involvement of both participants and the trainer throughout the training. Successful completion of the training will lead to certification. The following are the minimum requirements for successful completion of the training and certification:

1. **Attendance:** you should attend at least 90 % of the training program.

2. **Ground rules:** you should fully observe all ground rules that are negotiated and accepted within the group.

3. **Teachers portfolio:** you should develop and submit a teacher portfolio in line with the given criteria (see the details in box below).

4. **Lesson plans:** you are required to prepare and present at least three lesson plans using ERR framework of learning. Each lesson plan should contain at least two modern teaching methods and the lesson plans should contain varied modern teaching methods.

5. **Micro teaching:** you will have to perform at least one micro teaching session during the training.

Requirements for teacher portfolio:
– Lesson plans following ERR framework
– Samples of students work demonstrating use of MTM
– Samples of teaching aids and materials prepared for the lessons
– Plan for a microteaching session
– Teacher's written self-reflection
– Samples of teacher's course work, handouts, other training resources

MAKING RULES AND PROCEDURES

Children derive a true sense of responsibility and ownership from participating in the process of rulemaking.

To involve the children in making rules use the following procedure:

1. Gather children in a circle in the class meeting area.

2. Begin a discussion about the purpose of rules and procedures. It is important that children understand that rules and procedures – like laws – are designed to keep people safe, to protect individual rights and freedom, and to provide guidelines for appropriate behavior. Children need to know that the rules tell members of a community what they should do rather than what they should not do.

3. Offer some examples of positive and concise rules such as: Put things back where they belong; Listen attentively; Show respect for all.

4. Elicit ideas from children.

5. Allow the class to decide which rules and procedures they will adapt.

6. Think with the students about the extent to which the rules should be detailed. Don't forget to explain to your students that once a rule is followed there is no need to keep it on the list anymore. The rules are flexible. Accepting a new rule or eliminating a mastered one must be negotiated and agreed to by all students.

7. Write the rules on a big sheet of paper and post them in the class meeting area for easy reference.

After the rules for the class are created and posted, the teacher will notice when children follow the rules and make comments to encourage other children to model appropriate behavior. If the teacher can see that a particular child "listens attentively", the teacher should comment on the behavior: "I notice that you were really looking at Tensaye when he shared his story. Your eyes were on him and you were showing him respect." Or: "Maria, I noticed that you had cleaned the paint brushes and put them away. That shows that you respect our materials."

References:
Walsh, K. B. Creating Child-Centered Classroom, Step by Step. 1997.
Košťálová, H. Training of Modern Teaching Methods. People in Need. 2005.

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PART

PART TWO: THEORY AND PRINCIPLES OF EFFECTIVE LEARNING

INTRODUCTION

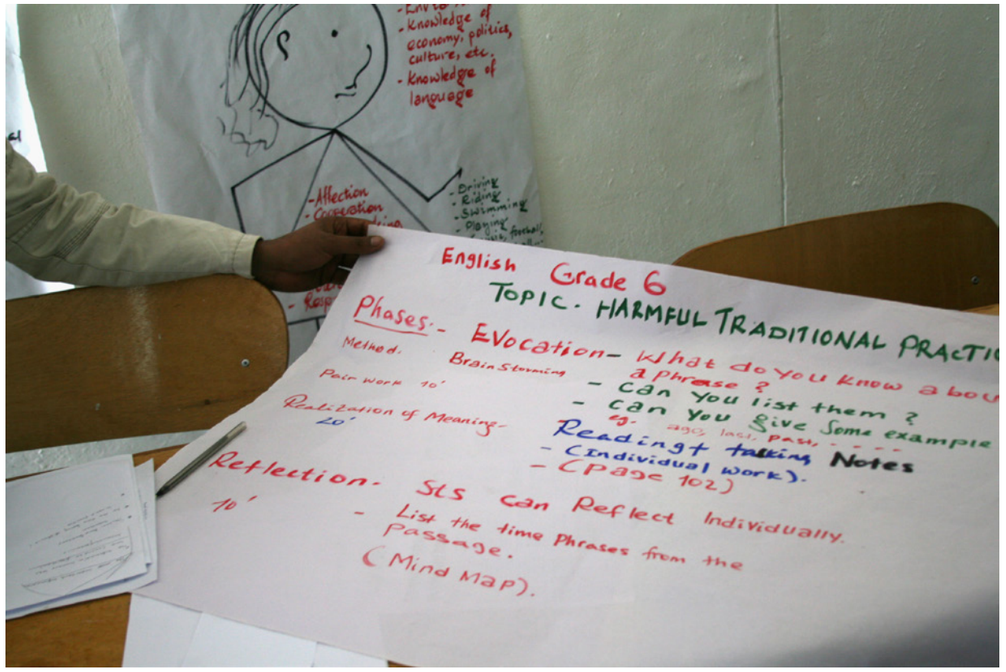
This part presents theory and principles that guide the whole training. Framework for thinking and learning according to socio-pedagogical constructivism, Active learning, Critical thinking, and Effective questioning are topics included in this part.

The framework for thinking and learning according to socio-pedagogical constructivism is the foundation on which this training and the manual is built on. This part introduces you to the major assumptions of this learning paradigm and presents an effective way of organising the teaching learning process around three stages of learning (Evocation, Realisation of learning and Reflection).

Active learning is related to the above learning paradigm. In addition, a number of active learning methods are presented in this manual. Hence, this part includes an explanation about what active learning is and why it is very important.

Education should help students think critically. As a teacher, how can you help your students develop critical thinking skills? The third topic in this part answers this question succinctly.

The last part discusses effective questioning. There is no doubt that you ask questions while teaching. Have you ever critically thought how deeply questions influence student learning and development? This part will help you think even more about this important skill. It also explains how to make questioning effective.



FRAMEWORK FOR THINKING AND LEARNING ACCORDING TO SOCIO-PEDAGOGICAL CONSTRUCTIVISM

I. BACKGROUND

Educators have long debated the importance of **learning factual knowledge** versus **learning practical life-skills** such as communication, co-operation, independent thinking and other skills (or, in other words, practical and conceptual knowledge).

1. Those who suggest that factual knowledge is the most important typically believe there exists a certain set of facts, which, when learned adequately, prepare students to become fully functioning participants in the social order.

2. Those who suggest that conceptual skills and practical experience are most critical propose that knowledge itself is not enough. Rather, they propose that knowledge is only of value when it is useful and it is only useful when it is understood in conceptual terms and can be practically, creatively and critically applied.

No one doubts that factual knowledge is important. There is a great deal people must know to successfully negotiate daily commerce. However the idea that a set of knowledge exists that will prepare students for their future becomes less and less supportable the more rapidly societies change. The difficulty of describing such a collection of wisdom is seen when one realises that 100 % of what we know today will constitute only 10 % to 15 % of available knowledge in 25 years. Further, the rapidly expanding knowledge base will be increasingly available to everyone. With electronic communication extending into almost all cultures around the world, schools and homes are becoming informational centers with access to information from around the world.

What will be required of students to be successful in the changing world will be **ability to sift through information and make decisions about what is and is not important.** They will have to be able to understand how various pieces of information fit together or can fit together. They will need to be able to give context to new ideas and knowledge, to assign meaning to new encounters, and to reject information that is irrelevant or invalid. **Students will need to find meaning in the information universe they encounter in critical, creative, and productive ways.** To manage information well students will have to be adept at **applying a set of practical thinking skills** that enable them to sort information efficiently into meaningful ideas, which can then be transformed into practical behavior.

II. SOCIO-PEDAGOGICAL CONSTRUCTIVISM

Socio-pedagogical constructivism is a theory of how human beings learn – how they build their knowledge and especially how they build their understanding of the world, both external and internal.

According to socio-pedagogical constructivism **learning is a process of connecting "old" with "new" in our minds in a meaningful way.** Learning is not the memorising of un-understood facts. Rather, it is the building of cognitive structures where each fact, each piece of knowledge, each experience has its own place and is interconnected with the rest of the structure. If this occurs, learners are more likely to understand the content and also use the learnt knowledge in their everyday life. Also, the information is remembered better if it is gained through an active learning process that enables the learners to build the knowledge structures for themselves.

The learning process is described in **three phases** (see the framework for thinking and learning later in this chapter) that should help the teachers to plan their teaching and at the same time students' learning and understanding in the most effective way. Remember that it is only a model and a model never describes life in its richness and in all possible variations. The framework (model) should just serve as a tool for better organising of the teaching / learning process and of a sequence of the steps that are done during the period of learning.

Generally the framework respects the following general principles about knowledge, teaching and learning based on the constructivist's point of view:

– Learning is an active process
– Each student is unique
– Students' background knowledge is a base for their learning
– Learning is both social and individual

III. FRAMEWORK FOR THINKING AND LEARNING (ERR FRAMEWORK)

During the last hundred years psychological and pedagogical research has been investigating the **nature of human learning.** The purpose of the research has been to discover processes of natural learning so that they could be applied in situations of directed learning – in such situations that occur during school education. If a teacher becomes aware of these processes he/she can arrange learning of her students in a more effective way.

Because the processes of learning are complicated, educators have been trying to specify a model that could describe learning in several steps that can be followed by teachers when planning and realizing instruction.

Several models have been invented. One of the easiest and at the same time most effective is called **"framework for thinking and learning".** This model describes learning in three interconnected stages: evocation, realization of meaning and reflection (therefore it has been called ERR framework). While following this model the teacher is able to prepare learning opportunities during which students will gain knowledge as well as practice life-skills.

1. **Evocation of the pre-concepts** (= current concepts of the topic) and anticipation of the content of the topic.

2. **Realisation of meaning** (of information) – making connection between new ideas and the previous ideas and concepts. New ideas usually come from an external source selected by the teacher. It can be a lecture, text, experiment, etc.

3. **Reflection** – (individual) summarisation of new concept. The learner should be given the opportunity to summarise the new concept of the topic that he/she has learnt.

1. "Evocation stage" of learning process

In this first stage several important cognitive activities are accomplished. First, the learners are actively engaged in **recalling what they know about the topic**. This forces the learners to examine their own knowledge and begin thinking about the topic they will soon be exploring in detail. The importance of this initial engagement will become clearer as the remaining two stages are described. However, it is of primary importance that through this initial activity the learners establish a baseline of personal knowledge to which new knowledge can be added. This is critical as all lasting knowledge is understood within this context as information that learners are unable to connect to known knowledge is information that may soon be lost. The learning process is a process of connecting the new with the known. Learners build new understanding from the foundation of previous knowledge and beliefs. Thus, by assisting students with the reconstruction of previous knowledge and beliefs the broadest foundation can be established upon which long-term understanding of new information is accomplished. It also serves to illuminate misunderstandings, confusion, and errors in knowledge that otherwise wouldn't surface without active examination of held knowledge and beliefs.

The second purpose of the evocation phase is **to activate the learner**. Learning is an active rather than passive activity. Too often students are seated passively in classrooms listening to their teachers do all the thinking while they sit mindlessly taking notes or daydreaming. For meaningful, lasting, critical understanding to occur students must be actively engaged in the learning process. Active engagement means that students must become aware of their own thinking using their own language. They then must express their knowledge

and understanding through either active thinking, writing, or speaking. In this way personal knowledge is at the awareness level and the students' schema or previously established construct for thinking about a topic or idea is elicited. By eliciting this construct or schema the student is better able to connect the new information with the known because the context for understanding has been made self-evident.

Because lasting understanding is the process of linking new information with the previous schemata the third purpose of the evocation stage is critical. Through this stage **interest and purpose** in exploration of the topic is established. Interest and purpose are essential to sustain the learners' active engagement. Purposeful learning is more effective than non-purposeful learning. However, there are two types of purposes: teacher or text-driven purpose versus self-directed purpose. Self-directed purposes are more powerful than those imposed from external sources and one's interest often determines one's purpose. Without sustained interest the motivation to reconstruct the schemata or to accommodate new information is diminished. Within the class differences among students' knowledge and ideas can lead to personal questions and personal questions can be a powerful motivation for studying (reading, listening, observing) with understanding.

2. "Realisation of meaning" stage of learning process

The first essential task for this second stage is **to sustain engagement**, to maintain the interest and momentum established during the evocation phase. The second essential task is to support learners' efforts **to monitor their own comprehension**. Effective learners and efficient readers monitor their own understanding as new information is encountered. When reading, good readers will reread if necessary. Listeners, when listening to a presentation, will ask questions or make a note of confusion or misunderstanding for later clarification. Passive learners simply pass over these lapses in understanding, unaware of the confusion, misunderstanding or outright omissions of information. Additionally, when students are monitoring their own comprehension they are engaged in applying the information to their established schemata. They are purposively **connecting the new with the known**. Students are building bridges between known and new knowledge to establish new understanding. During this stage new material usually decided and brought by the teacher is introduced to the students according to their current needs and possibilities.

3. "Reflection" stage of learning process

There are several essential accomplishments targeted for the reflection stage. Foremost, students are expected to begin **expressing in their own words** the ideas and information encountered. This is necessary for new schemata to be constructed. Long term learning and in-depth understanding is personal. Learners remember best what they understand in their own context, in their own words. Understanding is lasting when information is placed within a meaningful contextual framework (Pearson & Fielding, 1991). By actively formulating understanding into familiar, personal vocabulary, a personal, meaningful context is created.

The second goal of this phase is generating a robust **exchange of ideas between students** thereby expanding their expressive vocabulary as well as exposing them to varying schemata to consider as they build their own. By engaging in discussion during the reflection phase students are exposed to a variety of constructs for consideration. This is a time of change and re-conceptualisation in the learning process. Exposure to multiple ways of integrating new information at this time leads to a more flexible construct, which can be more practically and purposefully applied in the future.

References:
Jeannie L. Steele, Kurtis S. Meredith, Charles Temple: A framework for critical thinking across the curriculum. Prepared for the Reading and Writing for Critical Thinking Project. 1998.
Košťalova, H. Training of Modern Teaching Methods. People in Need. 2005.

ACTIVE LEARNING

Active learning is an umbrella term that refers to several models of instruction that center the responsibility of learning on learners. This is the broadest and most inclusive learning principle and it is crucial for all other key learning processes.

Active learning can be defined as an investment of a significant amount of mental energy and a high level of psychological involvement in the learning process. Active learning is in short any learning activity students engage in other than just listening passively to an instructor's lecture (Faust & Paulson; 1998). It is often the learner who decides their level of learning activity, through thoughtful consideration or note taking.

Active learning involves providing opportunities for students to meaningfully talk and listen, write, read, and reflect on the content, ideas, issues and concerns of an academic subject (Meyers & Jones, 1993). From the definition of active learning the following major points can be noted:

- Students use their brains by studying ideas, solving problems, and applying what they learn in practice;
- Active learners energetically strive to take a greater responsibility for their own learning. They integrate new information, concepts, or skills into their own mental schema through rephrasing, rehearsing, and practice;
- Students engage in the process of building their own mental models from the information they are acquiring. They should constantly test the validity of the model being constructed;
- Through active learning students become their own teachers;
- Classroom strategies such as social interaction (students working together) and less competition should get students more involved in the subject matter;
- Teachers teach students how to function actively and how to get the task done within the context of the subject, the course, the class. The learning responsibility is distributed among the students and the teacher;
- Students are put into situations which compel them to read, speak, listen, think critically, solve problems and write;
- Students must engage in such higher-order thinking tasks as analysis, synthesis and evaluation in contrast to simple absorption of new information.
- Teachers become facilitators of learning, and students become active participants, engaging in a dialog with their colleagues and with the instructor;
- Knowledge is directly experienced, constructed, acted upon, tested, or revised by the learner.

References: http://schoolweb.missouri.edu/stoutland/elementary/active_learning.htm

CRITICAL THINKING

Critical thinking is reasonable, reflective and responsible thinking that is focused on deciding what to believe or do. A person who thinks critically can ask appropriate questions, gather relevant information, efficiently and creatively sort through information, reason logically, and come to reliable and trustworthy conclusions about the world. Critical thinking is the ability to think for oneself and reliably and responsibly make decisions that affect one's life. Critical thinking is also critical inquiry, so such critical thinkers investigate problems, ask questions, propose new answers that challenge the status quo, discover new information that can be used for good or ill, question authorities and traditional beliefs, challenge received dogmas and doctrines.

DEVELOPING CRITICAL THINKING IN STUDENTS

Educators can use various instructional methods to promote critical thinking and problem solving. This requires teachers to think beforehand about the type and nature of questions, activities, assignments and exams they prepare so that they can be geared towards the development of critical thinking among students. The intellectual skills of critical thinking – analysis, synthesis, reflection, etc. – must be learned by actually performing them. When lecturing, the teacher organises and presents essential information without student input. This practice eliminates the opportunity for students to decide for themselves what information is important to know. For example, instead of telling our students via lecture what the parts of a plant are, they could be assigned to bring plant samples from outside and try to identify the plant parts in groups first.

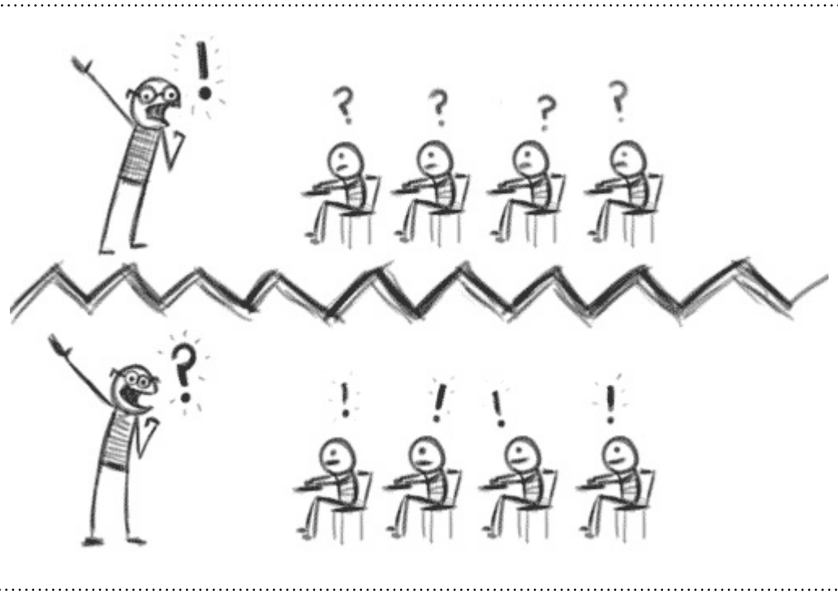


Figure: The more critical thinking focused strategies the teacher employs; the better the students' learning. In this figure, the question marks above students' head represent confusion, the exclamation marks represent comprehension. Source: http://teachingcriticalandcreativethinking.wikia.com/

Students need to be exposed to diverse teaching methods that promote critical thinking in order to nurture the critical thinking process. There are different **strategies** by which critical thinking can be developed in students.

1. Questioning
An assortment of questioning tactics exists to promote critical thinking. Depending on how a question is asked, the student may use various critical thinking skills such as interpretation, analysis, and recognition of assumptions to form a conclusion. Questions are only as good as the thought put into them and should go beyond knowledge-level recall. Questions should be designed to promote evaluation and synthesis of facts and concepts. For details about effective questioning and question types, see the separate handout on Questions on the next page.

2. Classroom Discussion and Debates
Classroom discussion and debates also promote critical thinking. Various techniques are available.
A negotiation model confronts students with credible but antagonistic arguments. The tension between the two arguments is believed to be one component driving critical thought. Controversial issues and both perspectives should be presented and discussed. Students could be assigned to defend their preferred answer.
Another strategy to promote students to seek both sides of an issue is pro and con grids. Students create grids with the advantages and disadvantages of an issue e.g. *advantages and disadvantages of wildlife protection*. Regardless of the teaching methods used, students should be exposed to analysing the costs and benefits of issues and problems to help prepare them for real-life decision making.

3. Written Assignments
In-class and out-of-class written assignments can also serve as powerful vehicles to allow students to expand their thinking processes. As a general rule, assignments for the purpose of promoting thought should be short (not long term papers) and focus on the aspect of thinking. For example, after teacher's explanation of photosynthesis, students can be asked to address the following scenario: "Describe how the world would look like if there was no photosynthesis on the Earth. Explain carefully the reasons for such situation."

4. Exams
Exam questions can be devised which promote critical thinking rather than rote memorisation. This is true for both essay question exams and multiple-choice exams. Examinations should require students to write or, at least, think. For written exams, short- and long-answer essay questions are the obvious solution. For example, in biology, a teacher can typically use a few short-answer essay questions on each exam that test the ability of students to analyse information and draw conclusions. This commonly-used technique helps to teach critical thinking. Some examples of these questions are as follows:

Example 1: Using diagrams and/or descriptions: Describe the process of a digestive system starting from food taken in by the mouth until it is assimilated and excreted. In your description include the role of the different organs involved throughout the process.

Example 2: Take one traditional cultural practice in your area, contrast the relative advantages and disadvantages of the practice and explain your conclusions.

Reference:
Schafersman, S. D. An Introduction to Critical Thinking. 1991.
Steele J. L., K. S. Meredith, & C. Temple. A Framework for Critical Thinking Across the Curriculum (Prepared for Reading and Writing for Critical Thinking Project). 1998.

EFFECTIVE QUESTIONING

To question well is to teach well. In the skilful use of questions, more than anything else, lies the fine art of teaching.
Earnest Sachs

A question is a sentence worded or expressed so as to elicit information or response. Questions are the engine and the driving force behind thinking. Without questions we have nothing to think about. For example, compare the following two sentences: "Water boils at 100 degree centigrade" and "At what temperature centigrade does water boil?" Which of these two encourage thinking?

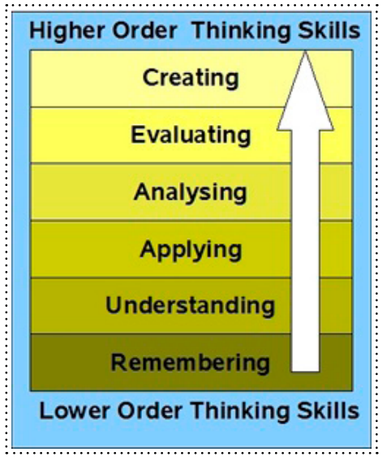
What makes questioning such a useful but complex skill is that it can be used in a number of different ways, ranging from a simple and quick check that a particular student has been paying attention to an integrated part of developing a dialogue and genuine discussion with a student about the topic in hand.

Open and closed questions

The easiest distinction of question types is that between 'closed' (closed-ended) questions and 'open' (open-ended) questions. Closed questions allow only single correct answer (such as: "What is the definition of the terms longitude and latitude?") and open questions on the contrary allow various perspectives and answer options (such as "How would you use your knowledge of latitude and longitude to locate South Pole and Ethiopia?"). These categories are further used when defining other question types.

Higher-order and lower-order questions

Different questions promote different types of thinking. Some question types require recall and repetition of facts (**lower-order questions**) and others require some manipulation of information such as reasoning about, evaluating or applying information (**higher-order questions**). Whereas lower-order questions (usually closed questions) tend to have answers that are clearly right or wrong, higher-order questions (usually open questions) might have more than one valid or plausible answer. Following examples show the different nature of lower-order and higher-order questions:



Source: http://topoftheclass.com.au/higher-order-thinking.html

Lower-order questions	Higher-order questions
What are the countries the Nile River runs through?	How does the Nile River impact the individual countries it runs through?
What does the theorem of Pythagoras tell us?	Why is the theorem of Pythagoras so important in geometry?
What is the most common element found in the earth's crust?	Why is oxygen the most common element found in the earth's crust?

Think about the questions you use when teaching your students. Are the questions mostly lower order and closed questions or higher order and open questions? Do you think using a good mix of these two categories of questions is important? Why? Studies of teachers' use of questions indicate a much greater use of lower order and closed questions than of higher order and open questions. Given that the latter are seen to be more intellectually challenging than the former, it is important for teachers to use a good mix of them.

Questioning is central to learning and growing. Hence, teachers need to develop good questioning skills. In looking at the skills underlying effective questioning, there are four key aspects: quality, targeting, interacting and feedback.
Quality of the question itself, in terms of clarity and appropriateness for meeting its intended function, is very important.
Targeting refers to the way in which teachers select students to answer. It is important to distribute questions to as many students as possible, and certainly not to focus on volunteers only. It also involves matching the question to the target students.
Interacting refers to the techniques used by teachers to ask questions and to respond to students. They involve making use of eye contact, the manner and tone of voice used, the use of pauses to give students thinking time, the use of prompting to help students with difficulties, and the use of follow up questions to enable and encourage students to elaborate or improve the quality of their initial answer.
Feedback refers to information the teacher provides to students after they answered a question. This information should help students evaluate the correctness of their response, encourage students to do their best, clarify misunderstanding, provide guidance on how to improve quality of answers or boost their confidence and self-esteem. However, the feedback to students should not be unclear, unhelpful and demoralising. The teacher's questioning and subsequent feedback to students' responses should take place in an encouraging and supportive atmosphere.

Tips for effective questioning

– Ask questions that invite more than one plausible answer.
– Provide wait time after asking a question to give less confident students an opportunity to formulate their responses.
– Ask follow-up questions, such as, "What can you add?" "What is your opinion, Yeshi?"
– Provide feedback that neither confirms nor denies student responses. Then the discussion remains open. Examples are: "Interesting." "I hadn't thought about that before."
– Request a summary. "Who can make Alemayehu's point in different words?"
– Survey the other students. "Who agrees with Teshome?" "Who disagrees? Why?"
– Be the devil's advocate. "How would you feel if…?" "How would your answer change if…?"
– Use think-aloud. "How did you figure out that answer?"
– Call on all students, not only those who raise their hands. But move on quickly if a student chooses not to answer.
– Alert the students to possible answers. "There are many possible answers to this question."
– Change the perspective. "How would you feel about your answer if you were…?"
– Imagine. "What would happen if…?"
– Relate the response to something else. "How is (student's response) similar to _____?"
– "How is it different?"

Common teachers' errors in questioning

– Asking too many questions at once.
– Asking a question and answering yourself.
– Asking questions only of the brightest or most likeable students.
– Asking difficult questions too early.
– Asking irrelevant questions.
– Always asking the same type of questions.
– Asking questions in a threatening way.
– Not indicating a change in the type of question.
– Not using probing questions.
– Not giving students time to think.
– Not correcting wrong answers.
– Ignoring answers.
– Failing to build on answers.

References: Košťálová, H. Training of Modern Teaching Methods. People in Need. 2005.

3

PART

PART THREE: DESCRIPTION OF MODERN TEACHING METHODS

INTRODUCTION

This part describes a number of carefully selected active learning methods. The methods are evaluated for their practicality in Ethiopian primary schools. Each description of the methods has at least four parts: quick suggestion, description, practical tips and examples from the class.

The quick suggestions are the first part you read about each method. The quick suggestions point out the time requirements and phase of the ERR framework on which the method can be applied. This will help you quickly decide when you can use the methods.

The practical tips for each method will help you use the methods effectively. How should you use the method? What materials do you need? What should you do? What should your students do? These and other similar questions are answered in this part. However, you should note that not all these questions are answered for all the methods. The questions are answered when appropriate. For example, not all methods require materials.

As you read the description of the methods, you may wonder: "how can I apply this method in my own classroom?" Example from the class is designed just to answer this question. It demonstrates how the method can be implemented in the classroom by using topics from elementary school textbooks.

LITTLE PEBBLES

Time required: 5–15 minutes
Phase of ERR framework: Evocation and Reflection

The game little Pebbles can serve to help students become more familiar with each other. It can be used with a new group of students as well as to extend mutual recognition of each other with in an "old" group. It can be also used as a learning activity.

You need a lot of pebbles. Put the pebbles in a cup or a bag and walk around the classroom. Each student takes as many pebbles as they want. Tell your students that each pebble has something hidden inside – a piece of information. According to the number of pebbles everybody has to say important information about themselves. A person who has only one pebble says only one piece of information, while a person who has more pebbles says more information.

For example:
Student Alemayehu takes three pebbles. He says:
"I have three brothers and one sister. I am the oldest one."
"I like reading in my free time, and I especially like adventure books."
"My favourite food is dorowot. It is a spicy chicken sauce cooked with butter, onion, chilli, garlic and other spices."

Application:
This activity can be used in the learning process too. You can assign each student to count as many exercises (or has to describe as many animals or has to locate as many towns etc.) to as many pebbles they have and so on. In addition, the activity can be used at the end of the lesson (after the new content has been learnt) to help students actively revise the new content. Since the activity can take up more time, it is practical to use it at the end of a major topic or a unit to devote the whole period for active revision. For example, a teacher teaching about the digestive system in a given unit can make students draw little pebbles and tell some piece of information they have learnt during the unit. Even though it might be time consuming, there are still options to use the activity for revision of a single lesson. In this case, instead of giving the pebbles to individuals, the pebbles can be given to groups and each group can offer as much information as possible according to the number of pebbles they received.

Practical tips:
- When using little pebbles for the learning process, you might want to give the pebbles to groups of students to save time. Otherwise, 15 min will not be enough to hear every student say something as per the number of pebbles he/she has.
- Introduce a rule, that every idea can be only mentioned once. There is no point in repeating the same points. The method encourages creative thinking (in case of evocation) and broad summarisation (in case of reflection)
- Use little pebbles only for the topics that enable students to come up with many different ideas or to summarise many different points or solve many problems. It might be difficult otherwise to use up all the pebbles and without repeating.
- You should collect and place all the pebbles properly at the end of the activity for reuse.

Example from the class:
A grade three English teacher wanted to check if her students identified different common names and items that belong to the common names.

She divided the class into four groups and named the groups vegetables, animals, fruits and crops. She put many pebbles in a bowl on the front desk and said, "Please nominate a representative for your group," when students are done nominating representatives, "Now, all representatives come to the front and take as many pebbles as you want from this bowl," said the teacher pointing to the bowl with her finger. The representatives took pebbles and went back to their groups.

The teacher said, "Your task now is to mention as many words as the number of pebbles your representatives brought to you corresponding to your group name. For example, let's say that the representative for the group labelled vegetables has 6 pebbles. Hence, this group will mention six vegetables. Is this clear?" the students shouted, "yes".

Just to confirm students understanding of the activity, the teacher asked the group labelled animals, "How many pebbles does your group have?" "Ten" said one of the students from this group. "Good, what are you going to do now?" said the teacher looking at the representative of the group. The representative said, "We will mention ten animals,"

After this conversation, she asked all groups to start doing the activity. She moved around the groups to monitor students' activity. After about seven minutes, she said "you all seem to have completed the activity. Now I want "crops group" to tell us their answers. How many pebbles did you take?" a group member answered "five" then he stood up and continued mentioning "wheat, maize, barley, beans, teff" "excellent, clap your hands to crops group please". Then she received the pebbles from the group and continued to the vegetables, animals and fruits group in the same way and finished her lesson.

References: Košťálová, H. Training of Modern Teaching Methods. People in Need. 2005.

FREE WRITING

Time required: 5–10 minutes
Phase of ERR framework: Evocation and Reflection

Students write freely on what they know, feel, and wonder about a topic before engaging in a lesson about it. Alternatively, students write briefly and intensively on a topic to get out their reflections after studying a topic. The teacher invites students to write down in a prescribed time (3–5 minutes), without stopping, everything that comes to mind when they think about a topic. The teacher explains the basic rules for free writing first:
(1) Put your pen on the paper and start writing.
(2) Use full sentences.
(3) Write during all prescribed time.
(4) If you don't know how to continue don't stop writing! You can use formulations like as "I don't know what to write…", "it's nice weather today…". Try to return to the topic as soon as possible.
(5) Mistakes are allowed.

After the prescribed time is up the teacher may ask students to read their paper aloud to a partner. At this point, many options are available. The teacher can invite pairs to share ideas with the whole group, or he/she may ask the students to underline the ideas on their papers that they are least sure about, and pay close attention to the reading to see if it sheds light on their areas of uncertainty.

Example from the class

At the end of a lecture a grade 5 civics teacher asked her students, "What did you learn about equality? Open your exercise books and write everything that comes to your mind regarding equality for 5 minutes. Don't worry about spelling or any other grammar errors." She moved around and encouraged students not to stop writing. When the five minutes were up, she clapped and asked, "It's time to stop writing. Read what you have written to the person next to you." She waited for students to finish reading and invited, "could anyone read aloud what he/she has written to the class?" Then she gave 7 students the chance to share their writing to the whole class. Finally, she summarised the main points from the students' free writing and finished the lesson.

REQUEST PROCEDURE

Time required: 15–20 minutes
Phase of ERR framework: Realisation of meaning

When students need support in reading text for information, one way to provide that support is to use the request procedure (Manzo, 1969). Request stands for "reciprocal questioning" and it is designed to encourage students to:
– Formulate their own questions about the material they are reading
– Develop questioning behavior
– Adopt an active attitude to reading
– Improve their independent reading comprehension skills

In this procedure, two students (A and B) read through a text, stop after each paragraph or part. The students decide on the passage to be read, it is up to them how long each part is. After reading the first part (silently) the students close their books. Student A explains (without looking at the text) the main ideas and student B asks a question that probes beneath the surface. They note the question on a sheet of paper, but needn't answer it. Then they both read the next paragraph (part) and the roles are reversed. Now student B clarifies the content of the paragraph and student A asks a question. The question is written down again. When they are finished, they read the next paragraph, and so on. Finally the pairs share the questions with the whole class and discuss the answers with the teacher.

For example, if students divide a text into 4 parts, they exchange their roles in this way:

Practical tips:
– Give a starting and finishing signal, by clapping for example. You will find incomplete and unfinished writing to be entertaining when read to the whole class.
– Free writing encourages students to recall ideas; if your students are expected to practically demonstrate applications, it's better to select another method.
– Tell your students not to worry about grammatical and writing mistakes. This will help them focus on generating ideas. Never point out their mistakes when free writing, but make it clear that otherwise grammar matters.
– You might find it a good idea to ask students to read their free writing out loud when they are done with it. Often the ear will pick up some patter or neat idea that they hadn't noticed as they wrote it. You also may ask students to read their free writing to a friend or have their friend read it out to them.
– It's a good idea to call time and give them one more minute to finish, because good ideas often come out under pressure.
– To make it easier for students you can also give them the first phrase such as: "The most interesting fact about ancient Greece for me is…" or "The main differences between animal and plant cells are…" or "Surprisingly for me, the photosynthesis is…" Formulate the phrase in line with the lesson objectives and the reason for using free writing.

Parts of a text	Student A	Student B
Part 1	explains main ideas	asks a question
Part 2	asks a question	explains main ideas
Part 3	explains main ideas	asks a question
Part 4	asks a question	explains main ideas

Practical tips:
– Demonstrate how to do the activity by serving as a partner to a student when the technique is first introduced.
– Based on the maturity of your students, you might want to remind students to formulate varied questions like Explain why is _____ important? How are _____ and ____ important? What is the nature of _____? What is the difference between _____ and _____?

Example from the class

A grade eight biology teacher said to his students, "Today we will use a request procedure to learn about structure, habitat, locomotion, nutrition, reproduction and importance of bacteria. You will work in pairs for this activity." He then arranged students in pairs and said, "Take out your text books on page —. and this is what you are going to do: you both will silently read only the first paragraph. When you are done reading, close your textbook and one of you explain the main ideas of the paragraph. The other student will ask a question relating to the paragraph. You do not need to know the answer to this question. However, you should note it. For the next part of the text, exchange your roles. The student who has explained the main ideas of the first paragraph will be the one asking question in the second. ''Is it clear? Do you have a question?" knowing that students understood what is expected from them, the teacher continued, "You can now start the activity." The teacher moved around the class, occasionally giving feedback to students. When the teacher saw that the students finished the activity, he said to them, "What question did you ask when reading the text? Forward your questions and we will answer it together," students started forwarding their questions and the teacher facilitated a whole class discussion to answer the questions.

References:
Manzo, A. V. The Request Procedure. Journal of Reading, 12, 1969.
Temple, Ch., Steele, L. J., Meredith, K. S. Reading, writing and discussion in every discipline Prepared for Reading and Writing for Critical Thinking Project 1998.
Skalická, P. People in Need – Training of Modern Teaching Methods 2005

BRAINSTORMING

Time required: 5–15 minutes
Phase of ERR framework: Evocation

Brainstorming enables us to come up with as many ideas about a topic as possible. To benefit from the method it is necessary to follow rules as described here.

Brainstorming procedure:

1. Select a topic – identify an idea that should be under consideration. (The topic relates to the content you would like to cover with them during the lesson.)
2. Assign a time portion that should be devoted to the brainstorming activity. Usually 5 minutes for individual brainstorming and a minimum of 5 minutes for group brainstorming. Your students have to brainstorm during the whole time.
3. Remember: each idea that comes up during the brainstorming activity is valuable. Accept them all – don't control your children's flow of ideas and don't refuse any idea. It is important to create a safe environment in which your students don't feel threatened to share their ideas. The time for selecting ideas will come later.
4. Don't worry about formal mistakes (spelling, handwriting, etc.). These also can be corrected during follow-up work.

Form of brainstorming

You always want to keep a record of ideas that come out during the process. So the written form of brainstorming is often the most useful one. With very young children they can use pictures or can dictate their ideas to you. You should write them visibly so that the children can see that you have accepted every single idea.

Advantages of individual brainstorming:

– Initiates the individual thinking of each student. If the student is asked to brainstorm individually she/he must switch on her/his own brain.
– Gives students freedom to think. Everybody must know that it is possible to make a mistake because each idea is valuable and nothing is assessed yet. So even students who are usually afraid to contribute will work and think because they feel they are in a safe social and learning environment.
– Brainstorming has the power to evoke and provoke deep ideas in students. Such ideas can occur if the teacher provides enough time for brainstorming (at least 5 minutes individually, 5 minutes in pairs) and if the students use all prescribed time for their thinking and brainstorming.
– Evokes students' own experience. In case you assign really "unknown" (not yet taught) topics the students should seek information and ideas in their own out-of-school experiences. In this way you can connect the out-of-school life of your students with their learning.
– Helps the students realise what they already know about the topic and what questions they have. It is important that it is the student himself/herself who is aware of his/her ideas about the topic.
– Helps the students make cognitive structures of their own. It is extremely important because students can understand and learn new knowledge or experience only if they are able to connect the new information with the information already existing as a part of their cognitive structure
– Motivates students for teaching and thinking! How? During the process the students discover what they already know and don't know. They become curious and eager to find out if their ideas and predictions were right, and answer for their questions (= that is why the questions are so important).

Advantages of brainstorming in pairs and in groups:

– Helps shy students to overcome their shyness and timidity. How? They have something to contribute because everybody is supposed to brainstorm individually at first. The method forbids criticism of ideas = each idea is valuable.
– It prepares a safe social environment so nobody can laugh at the student nor can any student look ridiculous. If a student shares in the pair and his/her partner accepts the shy student's idea, this shy student is encouraged to contribute this idea to the bigger group and later even to the whole class.
– Develops communication skills in each student. How? The students should express their ideas in an understandable and recognisable manner. They should persuade their partners on their ideas. They should form more arguments to support their ideas. They do not repeat memorised sentences but must use the language for expressing themselves.

– Develops listening skills and respect. How? The students should listen to, understand and accept ideas of their partners. They are not allowed to criticise their classmates' ideas, they should think independently about the ideas of others, they can accept interesting ideas from their partners and so on.

Practical Tips:

– Brainstorming question matters! Try to find a question that brings a broad scale of answers. It must be an open ended question.
– Deciding to use the lesson topic as a brainstorming question will not always work. You must be more specific, link the question to your lesson objective(s) (which will be new for the students within the lesson) and the question should encourage creative thinking.
For example, if you want to teach about dogs and you know that your fifth graders know about dogs quite well it makes no sense to ask them "What do you know or think you know about dogs?" or "What are dogs?" In case you want to extend your students' vocabulary, you can ask them "What in your opinion is the most interesting thing about dogs?" or "What would the world look like without dogs?"
– If you want to teach the students new information about dogs ask them about their existing knowledge or experience (= focus your question on the objective of the lesson). E.g. if you want to teach about "how dog serves man" you can ask them "Think about a dog you know. How does it help the family it lives with?"
– Brainstorming is NOT a suitable method for revision.
– Always write down all ideas that were raised during brainstorming. Cluster similar ideas together to make it easy to follow for the class.
– Don't judge: both the teacher and the students have to accept all students' ideas even if they were nonsense in order to encourage students to generate as many ideas as possible. It does not mean that no-one can doubt or ask questions about the idea but no-one can refuse it completely. The only thing one can do is to change his/her doubts into questions.)
– Make sure all misconceptions from the brainstorming activity will be corrected or addresses in the lesson.
– Always start with individual brainstorming (at least for a few minutes) to ensure that all students get involved in thinking. Starting with pair/group brainstorming would limit activity of some students as they could only rely on more active peers.
– Never make brainstorming groups bigger than 6 students. Always make sure that there is not one dominant or vocal group member who does not respect the rules of the procedure. If this happens the teacher has to interrupt the work of the given group and resolve it.

Example from the class:

A grade 7 biology teacher wanted to teach students about function and importance of the cell. At the beginning of his lesson he used brainstorming to find out his students' prior knowledge and experience on the importance and function of a cell. He first wrote the question (**What do you know about cells and their functions?)**. He then asked, "Students, now each of you are required to write the answers to the question in your exercise books; don't worry about mistakes just write anything you think is right; you are given five minutes." In the meantime he moved around and observed each student's writing.

When the given time is up, he instructed again, "Now face the person next to you and share your answers." He waited for another two minutes and randomly invited some students to share their answers to the whole class. He then wrote their answers on the blackboard. Some of the student's answers raised included the following:
– Cells are the smallest units in all animals and plants
– Cells help us to grow
– Help us stay alive
– Convert what we eat into energy

References: Košťálová, H. Training of Modern Teaching Methods. People in Need 2005

CINQUAIN

Time required: 5–10 minutes
Phase of ERR framework: Evocation and Reflection

What is it? Brief five-line poem on a given topic

What is it good for? Learners who write and later read or listen to Cinquain learn:
– To seek what is important about the topic for them personally–it means: how they see the topic and how they understand it;
– They learn how to express their thoughts and ideas about the topic in a very compact and apt way;
– They learn that their ideas and thoughts are valuable and worth writing about (and reading to others);
– They learn that others have different ideas but that the different ideas are not any better or worse than their personal ideas; they are simply and naturally different because we are all different people;
– They usually learn something new about the topic itself–and they learn it for themselves. So they learn that if they concentrate they can recognise a lot about the world that is surrounding them.

How to write it?

What is in the five lines?	Schema	Example
TOPIC (one word)	_____	banana
Two important features of it (what the topic is like) ADJECTIVES	_____ _____	yellow tasty
Three words for actions/motions (what the topic does or what is done with it) 3rd person of present tense VERB	_____ _____ _____	changes feeds enjoys
Four-word-long SENTENCE or expression	_____ _____ _____ ____	four for one birr
One-word-long summary (synonym, metaphor, image)	_____	fruit

Practical tips:

– You might tell your students that in French, the word "cinq" means the number five. This can explain why you want them write five lines.
– Encourage students to brainstorm words relating to the topic they want to write about. This might ease the process of selecting words for the five lines.
– Once students complete the five lines, encourage them to look over it and make revision if necessary. When revising, ask students to make sure that the five lines are speaking about one thing (the five lines are describing the thing, describing action that the thing might do, expression of feeling about the thing, summarising the poem).
– Recommend your students not to repeat words in a cinquain. They should be creative as the activity also expands their active vocabulary.

Example from the class:
After teaching about magnets, a grade seven Physics teacher asked his students to use cinquain to describe magnets. He modelled the activity using the word orange as follows.

Orange
Sweet, juicy
Washed, peeled, eaten
Oranges are circle shaped.
Citrus

Then he said, "Well now all of you describe magnets in a similar way in your exercise books". Finally, he asked volunteers to share their cinquain to the class and wrote some of them on the blackboard as shown below.

Magnets
Powerful, grey
Hold, pool, rub
Magnets have two poles.
Force

References: Košťálová, H., Skalická, P. People in Need – Training of Modern Teaching Methods, People in Need, 2005

AN ENHANCED LECTURE

Time required: 20 to 90 minutes
Phase of ERR framework: Realisation of meaning

For many years lecturing has been almost synonymous with traditional teaching. Lately, research by different well-known authorities in education has begun advocating the use of more active teaching approaches to support more effective learning. Lectures have both their strengths and weaknesses and whether they are appropriate for a particular course depends on the objectives for the course (Cashin, 1985). Systematically incorporating brief active learning strategies into lectures can minimise many of the weaknesses of the lecture approach. The "pause procedure," is one mechanism for incorporating active engagement into a lecture with little loss of time and significant increase in student learning. Stopping the lecture allows students to deal with the physiological and psychological responses that keep them from listening effectively for longer periods. An *enhanced lecture* is defined as a series of short mini-lectures punctuated by specific active learning events designed to meet class objectives. Research has shown that more information is retained when this strategy is used than in a similar lecture with no pauses.

There are different strategies that teachers can use to transition their lecture from the traditional lecture to an enhanced lecture. Nickerson (2002) has come up with the following strategies that teachers can incorporate in their enhanced lecture.

1. The Pause Procedure

Pause for few minutes after some time of lecturing and ask students to summarise orally the main points in pairs or to individually write them down. After a unit on a particular topic, for example, "net present value," a teacher could ask students to summarise the 3 most important points and, after two minutes, the teacher could ask if students have questions on the concept. Classroom Assessment Techniques (which are short, quickly administered, quickly analysed, ungraded and usually anonymous assessments) can also be used as a pause procedure to support students' independent learning and obtain feedback on what and how well students are learning. You might, for example, set a one minute task after a unit of the class asking, "What was the key point of the lecture on the time value of money I just gave?" The students would quickly write their responses. The teacher would collect the anonymous writing to get a sense of how well students understood the issue.

2. Short Writes

At an appropriate time in the lecture, a teacher stops and asks students to take two or three minutes to write briefly on something related to the lecture, e.g. "Write in your own words what the purpose of linear regression is." Alternately, teachers might ask students to write the key points so far in the lecture – something that encourages students to reflect on the material.

3. Think –– Pair –– Share

The strategy follows 3 steps: 1/ THINK: individual thinking; 2/ PAIR: discussing in pairs and last 3/ SHARE: sharing to the whole group. Tell students to take a moment to **think** about a specific question, concept, issue, problem that has just come up in the lecture. Then students discuss and compare their responses in **pairs** for some minutes (you can move around the class for that time, listening to the pairs of students). Finally, you open the discussion to the entire class and students **share** their ideas.

4. Voting and Polling

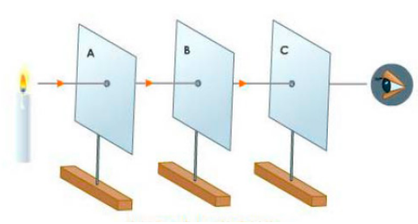
At the appropriate time in a lecture, get everyone to vote on a controversial issue you have raised, or something you are about to discuss. Require everyone to vote by a show of hands. Sometimes an instructor might have a re-vote later in the class.

5. Mid-lecture brainstorming

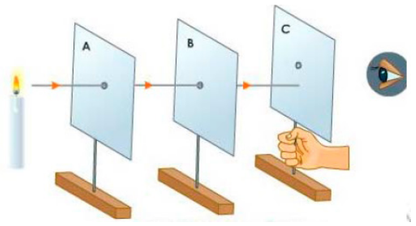
During a lecture, but before the presentation of new material, ask students to quickly tell you everything they know (or think they know) about a new topic. While the students offer ideas, write everything on a blackboard. Then give the lecture, underscoring some of the points students raised before the lecture, and correcting misconceptions students have about the topic. Students are more involved in a lecture to which they have contributed. Also, you have feedback about what individuals in the group know already.

Practical Tips:
– Plan short mini-lectures supported by student activities. Plan the activities ahead of the class.
– Do not lecture for more than 10 minutes without a break in the form of student activity. List the main points or areas to be discussed on the blackboard. This is your lecture's "roadmap" and students can refer to it as you lecture.
– Vary your voice projection (such as raising and lowering your voices), enunciate clearly, and speak at an appropriate pace (such as slowing down and repeating important points).
– Speak to the students, not to the blackboard, walls, notes, or floor, and maintain eye contact with the students.
– Keep eye contact with students during the lecture to identify nonverbal clues on whether they are paying attention, understanding, or agreeing with you.
– Restate the major points at the end of the lecture, or ask a student to summarise the lecture's key concepts (this may tell you quickly what was learned and what was not remembered so that you can improve your lecture the next time).

Example from the class:
A grade eight teacher started the lesson by asking: "How does light travel?" Then the teacher explained terms like luminous and illuminous bodies, opaque, translucent and transparent objects. After about 10 minutes the teacher made a break in the lecture and used Think – Pair – Share activity. He asked students to open their text book on page 138 and individually answer the question "why do we see light through set of cardboard "a"? Why can't we see light through set of cardboard "b"?"(See the diagram below). After allowing students to think about the questions for one minute, the teacher asked students to get into pairs to share their answers. After the whole class discussion the teacher clearly summarised the correct answer and continued his lecture.



a) Straight holes



b) Disordered holes

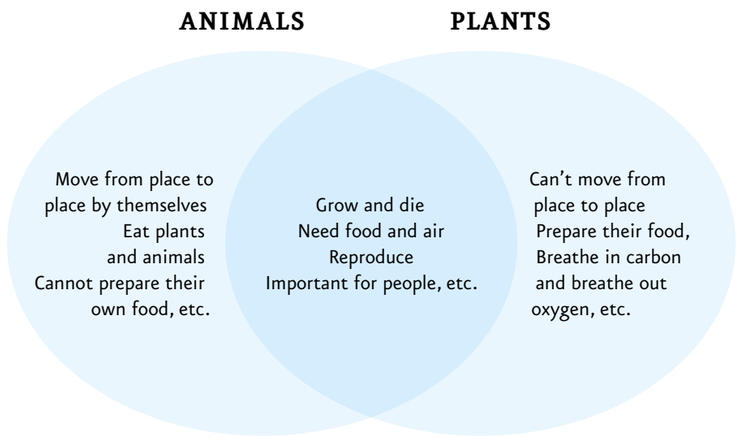
References: Košťálová, H., Skalická, P. People in Need – Training of Modern Teaching Methods, People in Need, 2005

VENN DIAGRAMS

Time required: 10–15 minutes
Phase of ERR framework: Evocation and Reflection

A Venn diagram is constructed using two or more large, partially overlapping circles with space in the middle. It can be used for contrasting ideas and showing an overlap between them.

Suppose, for example, that the students are comparing **plants** and **animals.** A Venn diagram with two overlapping circles would enable the class to contrast features of the two items, while also displaying what they have in common.



Venn diagrams procedure:
Venn diagrams are either used at the very beginning of a lesson to help students to generate their previous knowledge about a topic (for evocation) or it can be used at the very end to give students space to summarise the main points of the lesson (for reflection).

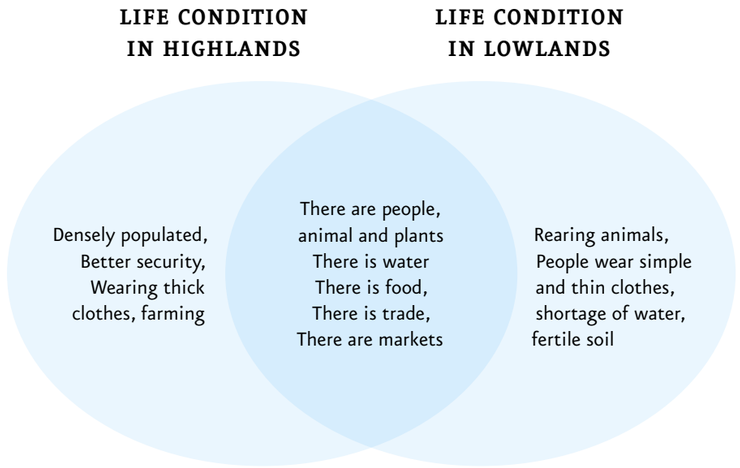
1. Find two items that should be compared. In our example above we have selected Animals and Plants. In your subject area you might want the students to compare different items, e.g. two vegetables (tomato and potato; onion and garlic, etc.), two literary characters (Bilcho and Tom Thumb, lion and parrot), two different water sources (e.g. Bellata river and Awassa lake), two types of human settlements (e.g. village and town), two people (e.g. mother and father). It depends on the objectives and topic of the lesson.
2. Divide the students in to pairs or groups.
3. Ask the pairs or groups to draw two big overlapping circles. The overlapping section should be large enough that the students can write down several words in it. Let the students label one circle with the name of one of the selected items, and the second circle with the name of the second selected item.
4. The students should then find features that the two items have in common–these should be placed in the intersection of the circles. At the same time, the students should also identify features that are unique, that the items don't share. These features should be included in the Venn diagram in the appropriate sections.
5. After the group Venn diagrams are completed draw one whole-class joint Venn diagram on the blackboard and collect ideas from different groups.

Practical Tips:
- The items you want your students to compare should have a list of differences as well as features they share in common.
- The comparison must be done by students; it's not a teaching aid filled & brought to a class by the teacher. It would not be an active learning method then.
- When used as an activity to start learning about a new topic (for evocation), allow your students to make mistakes and make sure they are addressed in the upcoming lesson. If used for summarising of the newly learned content (for reflection), correct the misconceptions immediately when collecting ideas from the individual groups and make sure students understand what was wrong.
- Alternatively, you may ask pairs/groups of students to construct a Venn diagram by filling in only the part of the circle devoted exclusively to one item (Animals) or the other one (Plants), respectively. Then pairs could join other pairs and the foursome could compare their diagrams and then list in the middle section the features they saw that were common to both items.

Example from the class:
A grade 5 social studies teacher asked students to compare and contrast the differences and similarities of the living condition in Highlands and lowlands (natural resources, culture, climate, landscape, population etc.) after they have studied them from their text book on page 26–27.

He first drew on the blackboard an empty Venn diagram for comparing and contrasting living in highlands and lowlands as shown above. Then he explained the Venn diagram procedure, saying that in each circle the features of natural resources, culture, climate, landscape and population in highlands and lowlands should be listed. The features that are identical for both should be in the middle. Then he asked: "Think of people living in highlands and lowlands and describe what you know about them." The teacher takes notes in the relevant part of the Venn diagram. Then he asked the students, "now based on the example I want each of you draw a Venn diagram in your exercise book and list down the similar and different features of the life condition in highlands and low lands in seven minutes. Please, focus on natural resources, culture, climate and landscape. The characteristics of people have been described already by all of us together" Then students individually listed the common and contrast features of highlands and lowlands in the given 7 minutes.

When the given time is up, he instructed students: "now work in pairs and share your Venn diagrams to your partner." He waited for another 5 minutes while moving around and observing the activity.
Finally, the teacher drew a whole class Venn diagram and wrote students' ideas on the blackboard as follows and made corrections.



References:
Temple, Ch., Steele, L. J., Meredith, K. S. Reading, writing and discussion in every discipline. Prepared for Reading and Writing for Critical Thinking Project 1998.
Košťálová, H., Skalická, P., Training of Modern Teaching Methods. People in Need. 2005.

COMPARATIVE TABLE

Time required: 10–15 minutes
Phase of ERR framework: Evocation and Reflection

Students put distinctive features of two or more items in separate columns of a comparative table such as the following:

No	Distinctive features	Towns	Countryside
1	Livelihoods		
2	Transportation		
3	Clothing		
4	Pollution		
5	Social services		
6	Houses		

To use a comparative table, you need to have two or more items with typical features/differences and similarities. Draw the comparative table as shown above and formulate the comparing criteria in the first column. Then you can use the table in one of the following three ways.

1. TABLE OF DISTINCTIVE FEATURES AS AN EXTENSION OF VENN DIAGRAM

After the students complete the Venn diagram you can ask them to prepare a comparative table. They will determine the distinctive features and they will apply their experience from the Venn diagram.

Present the following table. The number of lines is for you to decide or you can let the students decide themselves.

Distinctive features	item No 1	item No 2

Example:

Distinctive features	Animals	Plants
movement	Can move by themselves	Can't move from place to place
Feeding	Eat plants and animals, can't prepare their food	Air, water & minerals are their foods, prepare their food
Breathing	Breathe in oxygen & breathe out carbon dioxide	Breathe in carbon dioxide & breathe out oxygen
Reproduction	Sexually and asexually (giving birth)	Sexually and asexually (fusion, cloning)
Communication	Have different ways of communication	Do not communicate

2. TABLE OF DISTINCTIVE FEATURES WITHOUT VENN DIAGRAM

You can also use the comparative table as a discreet method, not only in connection with the Venn diagram. In case your students know one item/topic well and you want them to study another item, you can use this table.

Example:

Distinctive features	Animals	Plants
Movement	Can move by themselves	Can't move from place to place
Feeding	Eat plants and animals, can't prepare their food	Air, water & minerals are their foods, prepare their food
Breathing	Breathe in oxygen & breathe out carbon dioxide	Breathe in carbon dioxide & breathe out oxygen
Reproduction	Sexually and asexually (giving birth)	Sexually and asexually (fusion, cloning)
Communication	Have different ways of communication	Do not communicate

A comparative table could also be used to assess students' understanding of the differences and similarities of two or more items which were already learnt or studied, such as in the table below.

Example:

	Animal cell	Plant cell
Size		
Structure		
Shape		
Etc.		

Practical Tips:
- The columns of the comparative table should be filled by students. This helps to successfully assess students' knowledge and understanding of a given topic either before or after the new topic has been introduced.
- If students are not clear what to write under the columns, ask volunteers to give examples and write them on the blackboard.
- If the students are from the lower levels, they can tell you the typical characteristics orally and you can write for them on the blackboard.

Example from the class:

A grade 7 physics teacher at the end of her lecture said to her students: "I hope you have learned a lot from the lecture; now I want you to summarise what you have learned. I am going to draw a comparative table on the board. Copy the table in your exercise books." She drew the table with four columns and labelled them with distinctive features, length, mass and time. She listed the criteria under the first column. She waited for five minutes until the students copied the table. Then she said, "List the scientific instrument for measurement, SI unit, non SI unit and symbol of each fundamental quantity in ten minutes." While they were doing the activity, she was moving around and looking at what each student was writing.

When the time is up, she said, "Now who can tell me the scientific measuring instrument for length?' a student raised up his hand and answered "ruler", another student added " carpenter rule", another

student said, “tape measure” in the mean time she wrote their answers in the table drawn on the blackboard. She continued, “thank you very much; what scientific instrument do we use to measure mass?” a student answered “kilogram” “good, is kilogram an instrument?” said the teacher; “No it’s beam balance” another student answered. “Very good, kilogram is rather the SI unit of mass” the teacher remarked. She summarised the student’s answers using a comparative table as follows:

Distinctive features	**Length**	**Mass**	**Time**
Scientific Instrument for measurement	Ruler, carpenter rule, tape measure	Beam balance	Stopwatch
SI unit	Meter	Kilogram	Second
Non SI units	Centimetre, millimetre, kilometre	Ton, gram, milligram, quintal	Hour, minute
Symbol	ℓ	M	T

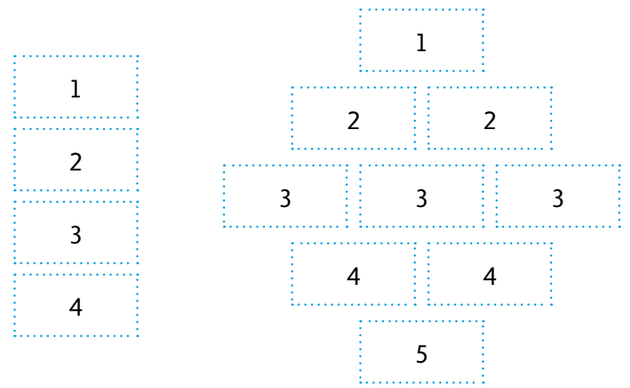
References: Košťálová H. Training of Modern Teaching Methods, People in Need, 2005

RANKING

Time required: 10–20 minutes
Phase of ERR framework: Evocation and Reflection

A ranking exercise requires students to order given items (terms, idea, concepts, statements) following criteria set by the teacher. The teacher writes a number of statements or ideas on a blackboard and then students have to “rank” or order them according to their importance, size, age, complexity or other criterion. Ranking exercises are especially useful for reflection as they require application of a new knowledge. For example if the topic of the civics lesson was administrative division in Ethiopia, the ranking assignment may ask students to rank the following terms according to their size from the smallest one to the largest one: country, kebele, zone, regional state, woreda.

Ranking can be done with cards in a straight line (ladder ranking) – from most important to least, or it can be in a diamond shape (diamond ranking), with the most important idea at the top of the diamond and the least at the bottom, with all other ranks between these two ranks (see the picture below).



Ladder ranking Diamond ranking

Practical Tips:
- Instruct the students that they have to justify their ranking. After each group has finished ranking, it is good to make them share their justifications with the rest of the class.
- Alternatively, ask groups after completing the ranking exercise to compare and explain their results.
- Always present the correct ranking so that students can compare it with their own ranking.
- Doing the ranking exercises in groups saves a lot of time and encourages group discussion.
- You can create a sense of competition by encouraging students to finish the ranking activity fast and accurately.

Example from class:
After introducing single celled organisms, a grade eight Biology teacher said to his students: “read about the organisms’ importance from your textbook”. While students were reading, he wrote on the chalk board the following single celled animals: Amoeba, Paramecium, Euglena, Bacteria and Yeast. Then the teacher told students: “Now, rank these organisms from least important to most important in relation to facilitating food production to human beings”.

5–1–4

Time required: 10–15 minutes
Phase of ERR framework: Evocation and Reflection

This is an activity for the evocation or reflection part of the lesson through which students can share their questions about a topic. It develops questioning skills and expresses ideas in their own words.

Make groups of 5 (or 4) students. The group sits down around a table in a small circle – this is important for the method. Everybody has their own piece of paper or an exercise book.

At first, everybody writes down a question concerning a topic that has been taught or discussed. Devote enough time so that everybody can identify and formulate his/her own question.

After each member of the group has written down their question, all students send their note book or paper to the person to their right. Students read the question they've received from their neighbor and answers in writing. Once the answers are written, the papers/exercise books are again passed to the right. The recipient reads the question at the top of the page and also responds. Certainly, they can also read the first answer that is already written on the paper and they can relate their answer also to the first one.

After the notebooks or the papers with one question and four answers are back to their authors and owners, the group can discuss them briefly and select one question for public presentation for the rest of the class.

Name of the method "5-1-4" means

5 groups' members
Each of them asks **1** question
And they each receive **4** answers after the exercise book is returned

If you have only four members in a group the name of the method will be 4-1-3.

Practical tips:

– During the activity move around and check if each member is taking their turn to answer the questions in the group
– In order to use the time allocated for the whole 5-1-4 activity, clearly announce a time limit for answering each question. When the limit is over, inform the class and tell them to pass the exercise books to their peers.

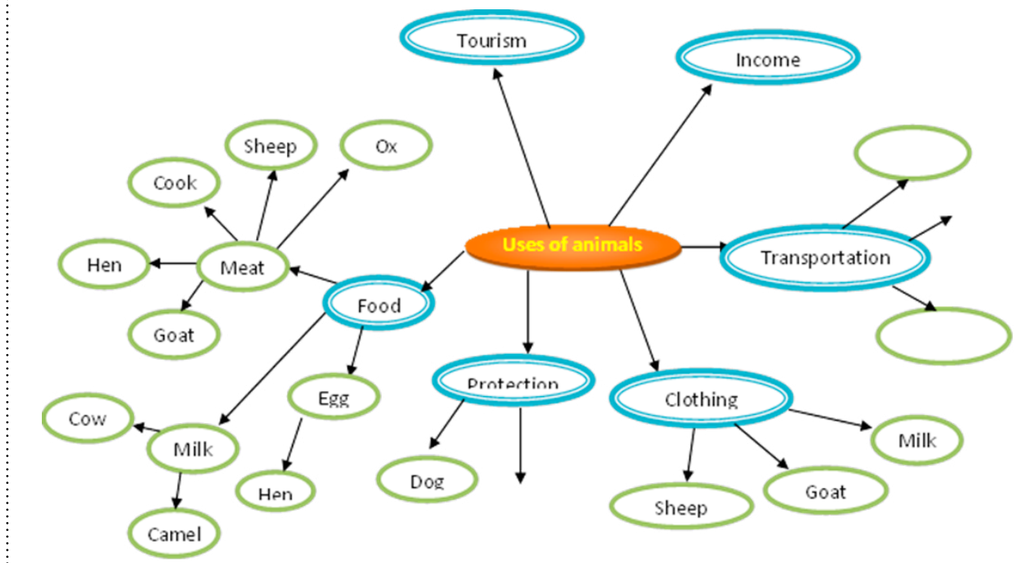
Example from the class:

A grade 8 biology teacher used the method of 5-1-4 to assess his students' understanding of sense of Taste after the topic was introduced to the students. First he arranged students in groups of five and then he explained about the method as follows: "Now each of you take out your exercise book and write one open ended question about the sense of taste. Ask either about points from the lesson that are not clear for you, or about something that was not mentioned and you would like to know about. It has to be related to the topic "sense of taste". Later on all group members are going to write an answer to your question, so make sure that you left enough space for the answers." He waited for five minutes and asked "have you all finished writing a question?" the class shouted, "yes" he continued, "well, now all of you pass your exercise books to the person next to you on your right. At the same time you receive a question from your left side. You read the question, write down your answer and pass it to the person next to you to your right. You will continue doing so until you receive your question with four different answers. The time limit for one answer is 2 minutes, I will always give you a signal to finalize your answers and pass the exercise books." During this time, the teacher observed the student activity around the class and every 2 minutes gave a signal to the class. After 10 minutes he asked: "Well, now could anyone share his question and the answers to the class?" a student raised his hand and shared while the teacher wrote it on the blackboard as follows:
'What are the main causes of lack of taste in human beings?'
– High fever
– Coating on the tongue
– When people become very old
– Chemical burn on the tongue
Some other volunteers shared in the same way and the teacher gave corrections when needed and finished the lesson.

MIND MAP

Time required: 5–10 minutes
Phase of ERR framework: Evocation and Reflection

Mind map is a teaching strategy which encourages students to think independently and openly about a topic. It entails only enough structure to stimulate thinking about the connections between ideas. It is a non-linear form of thinking more closely associated with how our minds work.
It is a writing activity that can serve as a powerful tool for introducing a writing process, especially to reluctant writers. Mostly it is a strategy for gaining access to one's own knowledge, understanding, or beliefs about a topic.

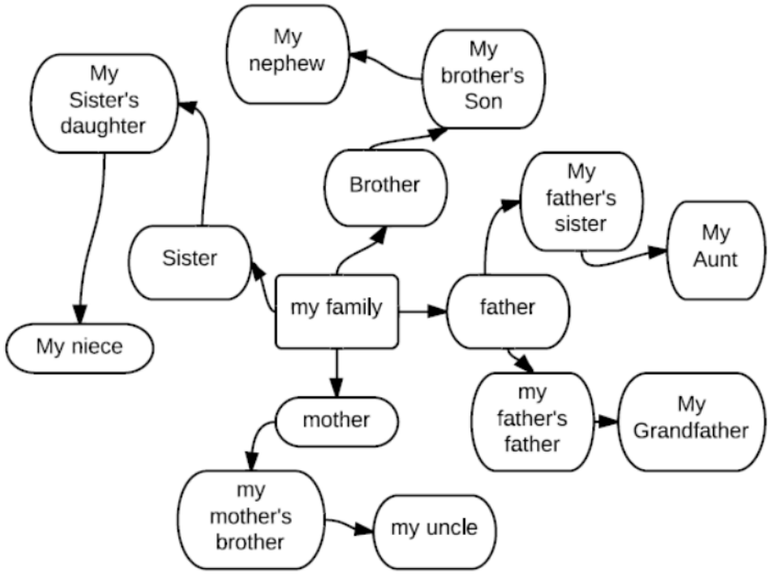


To introduce the mind map for the first time it is important to follow several easy steps:

1. Describe the activity to students in advance and present the steps for the mind-map.
2. Pick a topic of interest for students and model the process as a group process. The teacher can stay by a blackboard and write the students' suggestions about what to incorporate in to the mind map.
3. Never say to the students that their ideas are incorrect–accept each suggestion seriously. If as a teacher you know the suggestion is wrong or mistaken, use questions or prompts that can help the student come to an acceptable conclusion. If necessary, repeat the procedure, but be sure the students are the sources of ideas, not you.
4. Allow time for individuals to do a mind map on the topic chosen.
5. Allow time for four or five students to share their mind maps with the group (class).
6. Repeat the procedure frequently so that students become familiar with it. Be sure that the topics you suggest for the mind map are really interesting for the students.

Practical Tips:
- Inform students to write everything that comes to their mind without making any judgments about their thoughts. They can also include questions in the mind map if they are not sure.
- Encourage students to build as many connections as possible. Don't restrict the amount of ideas, flow and connections. Help students to use arrows, colours, lines and even branches (like that of a tree part) to be able to show the possible connections of ideas.
- When using this method, select a topic that the entire group can relate to.
- Tell students to use keywords and phrases but not entire sentences or paragraphs. They can write down notes which explain their keyword on another piece of paper for later reference.
- If your students are from the lower levels, you can draw the mind map on the blackboard and write down what your students suggest.
- Mind map is a method meant to generate ideas from students; hence, the teacher does not need to complete the mind map by themselves
- Teach all the students to accept each idea of their class mates with respect! You can do this simply by modelling the respectful approach!

Example from the class:
A grade 4 English teacher used a mind map to help his students recall and apply the vocabulary for family members. In the middle of the blackboard, the teacher drew a circle and wrote in it "My Family". Then he asked students "who are your family members?" then students answered saying father, mother, sister, and brother. The teacher wrote all these in a circle around the circle labelled "My Family" and connected them with lines. "What is your father's sister to you?" asked the teacher. "Aunt" said one of the students. "What about your father's father?" asked the teacher, "Grandfather" replied a student. In this way the teacher completed the following mind map with his students.



References:
Temple, Ch., Steele, J.L., Meredith, K.S.: Guidebook "Reading and Writing for Critical Thinking Project". 1997.
Tirney, R.J., Readence, J.E., Dishner, E.K.: Reading strategies and practices.
Košťálová, H. Training of Modern Teaching Methods. People in Need.2005.

KNOW/ WANT TO KNOW/ LEARN (K-W-L)

Time required: 40 minutes to multiple periods
Phase of ERR framework: Evocation, Realisation of Meaning and Reflection combined

The students list in a K-W-L chart what they already know about a topic and then frame questions to be answered by inquiry. At the conclusion of the lesson, the students return to the K-W-L chart and decide what they've learned in the lesson.

Begin by asking the students to form pairs and take 5 minutes to list everything they know or think they know about the topic. In the meantime, construct on the blackboard a Know/Want to Know/Learn (K-W-L) chart such as that:

WHAT DO WE **KNOW**?	WHAT DO WE **WANT TO KNOW**?	WHAT DID WE **LEARN**?

Ask pairs of students to share their ideas with you. As they do, write the points about which there is general agreement in the left-hand column under "What do we know?" It helps if you group ideas into categories.

Help students frame questions regarding the points they are unsure about. Questions may arise from details over which there is disagreement, or from categories of knowledge about which the students are curious. List those questions in the "Want-to-know" column.

Now ask the students to keep those questions firmly in mind as they read the article about the topic. Let them read individually or use any cooperative method for reading (such as we learn from one another, request procedure, etc.). Once the students have had time to read the article, call their attention back to the questions they raised before reading, questions that are listed in the "Want-to-know" column. Find out which answers to the questions have been found in the reading, and note these answers in the "What-did-we-learn" column. Next, ask students what other information they encountered about which they had not raised prior questions. Note this information in the "What-did-we-learn" column as well.

Check that all important points of the lesson are included in the "What-did-we-learn" column. Summarise the main points, add any missing information and make sure that students do understand the newly introduced concept. Some of their questions may have remained unanswered, and there also may be new questions. If so, these questions can be the basis for further inquiry. Discuss where the students might go for answers to those questions.

Practical Tips:
- When using the method for the first time, begin by modelling the use of a KWL chart step by step together with your students.
- When recording students' ideas in the chart on the blackboard, group similar answers in one statement to keep the chart clear and not overloaded with details.
- Always express the points in students'/your own words when recording in the K-W-L chart. Never copy sentences directly from the text. It promotes understanding.
- Individual students or groups of students have to have the text available.
- Employ group cooperative reading methods for effective reading of the text.
- All questions from the middle column (W) have to be answered in the course of the instructions. When some questions are not answered by the text, use one of the following strategies:

  1/ Ask the students (if you expect them to know the answer from other subjects or their experience);
  2/ Give it as a home assignment to students for next period (if some more serious inquiry is required) or
  3/ Prepare the answer by yourself for the next period. Select the strategy based on the nature of the questions and level of your students.

Example from the class:
A grade seven physics teacher started the lesson by saying: "today we will be talking about sound. We will focus on what sound is, how it is produced and transmitted. We will use a special chart called K-W-L to learn about these things". The teacher asked students to turn to the student beside them and make a list of points they know about sound. The teacher gave them 5 minutes for this activity. In the meantime, she drew the chart on the blackboard. After the given time is up, she asked pairs to share their ideas. As they did, the teacher wrote the points about which there is a general agreement under the column "what do we know".

Then the teacher asked students: "Think of things that you are not sure about sound. What do you want to know?" then she asked pairs to formulate questions that they want to get answers to. The most frequently asked questions are written under the column "what do we want to know". At this point, the teacher asked students to open their textbook and read on page 135 through 138 to find out which of the question under "what do we want to know" column is answered. The teacher informed students to note the questions they did not get answer to and other information they encountered about which they had not raised prior questions. Finally, she invited pairs to share points they get from their reading and wrote these under the column "What did we learn?" The following chart is the final output

WHAT DO WE **KNOW**?	WHAT DO WE **WANT TO KNOW**?	WHAT DID WE **LEARN**?
Sound is everywhere We hear sound through our ears Musical instruments produce sound We can record sound We can't see sound	What is sound? How is sound produced? How does sound travel? Why can't we see sound?	Sound needs material medium for its transmission. For example, air. Sound is a form of energy. It is generated by the series of vibrations. All materials can transmit sound but the degree of transmission is different

The teacher finalised the activity by saying: "we did not get answer to the question "why can't we see sound?". This question will be an assignment for you. Bring the answer for next period and we will discuss it".

References:
Temple, Ch., Steele, J.L., Meredith, K.S.: Guidebook "Reading and Writing for Critical Thinking Project". 1997.

ROTATING QUESTIONS

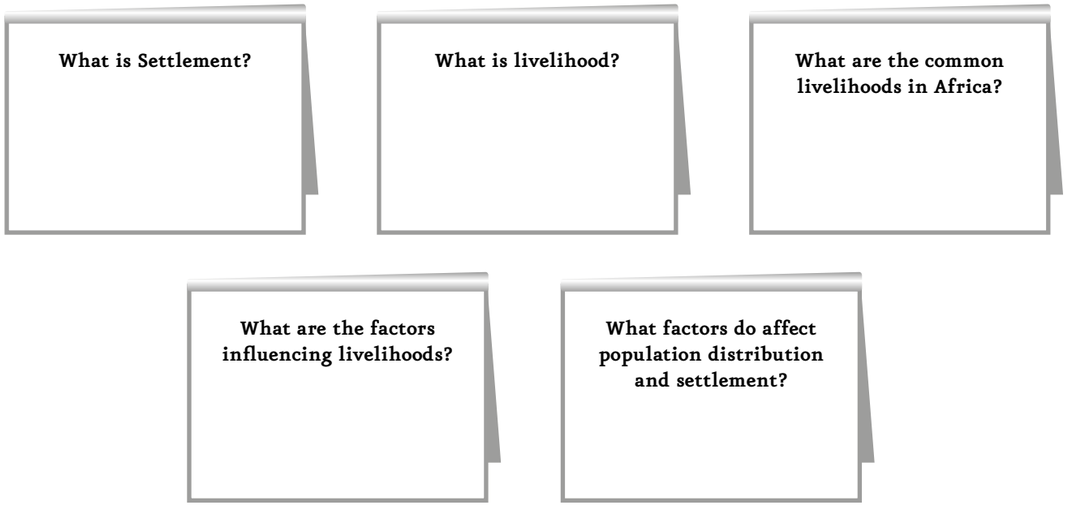
Time required: 5–10 minutes
Phase of ERR framework: Evocation and Reflection

Rotating Questions is one of the cooperative learning strategies that require participants to discuss and answer several questions that are one by one rotated from one group to another.

To use rotating questions, you need to formulate a number of open ended questions on separate flipcharts (or A4 size paper). Divide the whole class in groups, the group number should be the same as the number of questions. For instance, if you have five questions, then you should form five groups. Distribute one question on the flipchart to each group. Each group first discusses the question and writes their answers on paper. At a signal from the teacher, the groups stop writing and the teacher redistributes the flipcharts. The teacher redistributes the flipchart in such way that each group receives a flipchart containing a different question answered by a different group. Each group reads the next question and the answers written by other group(s), and adds their answer on the sheet below the previous group's answer. The process continues until all the questions are answered by all the groups, i.e. until the original questions return to their groups. Each group reviews the answers they received from their classmates. If time allows, the teacher lets the groups present the main answers. The teacher corrects the misconceptions if required.

Practical Tips:
- The questions have to be written in separate flipcharts or A4 papers as shown in the diagram under 'example from the class' part
- Make sure that the answer written on the flipchart is an agreed upon answer by the group
- The flipcharts should rotate from one group to another in a logical order. Doing so helps every group answer every question.
- Once each question is answered by every group, you may collect the flipchart to read it and provide feedback or post it on the wall for later use.

Example from the class:
A grade seven social studies teacher uses rotating questions for summarising the day's lesson. He divided the whole class into five groups and each group received a flipchart containing questions as shown in the figure below.



Then each group discussed for 2 minutes and wrote their answer on the flipchart. The teacher collected all the flipcharts and redistributed them. Each group read the question and the answer given by the previous group and added their own on the flipchart. This process continued until all questions on the flipchart have been answered by every group. Then the teacher made space for 3 groups to present a summary.

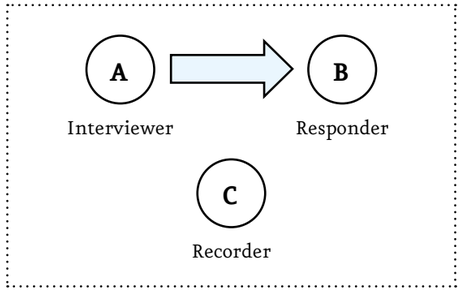
References: Košťálová, H., Skalická, P. People in Need – Training of Modern Teaching Methods, People in Need, 2005

THREE STEP INTERVIEW

Time required: 10–15 minutes
Phase of ERR framework: Evocation and Reflection

Three-Step interview (Kagan, 1992) is a cooperative structure in which partners interview one another on a particular topic. For example, in a team of three, Partner A interviews Partner B, while Partner C records key aspects of the response. Roles rotate after each interview, allowing all members the opportunity to be interviewed. Students develop their questioning and listening skills as well as ability to take notes. In a group of four, the steps can progress as follows: A interviews B, while C simultaneously interviews D. Roles reverse and B interviews A, and D interviews C. The group of four reconvenes with each person sharing his or her partner's response. Three-Step Interviews can be incorporated into any type of lesson, as the content of the interview can be virtually anything.

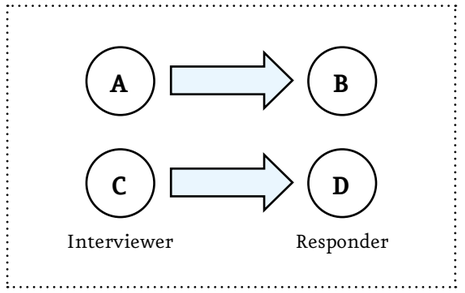
Group of three:



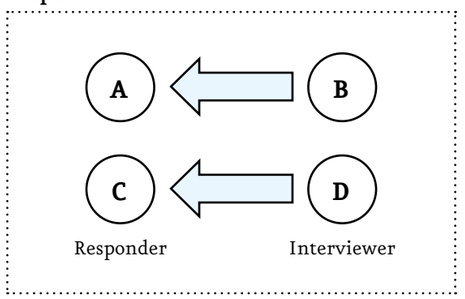
Roles rotate after each interview.

Group of four:

Step 1:



Step 2:



Step 3:
Each person shares partner's response with other group members.

Practical Tips:
- Before the interview starts, give students some time to think about questions they would like to ask or give them a list of questions related to the topic of the lesson.
- Alternatively, you might introduce a discussion topic such as "Should students have to wear a school uniform?" This will help students to remain focused during the interview.
- Give clear time limits for each interview according to the time you have for the whole activity. When the time limit for an interview is over, announce it to the whole class.
- Move around the groups and make sure that each group member is taking their turn to be interviewer, interviewee & recorder.

Example from the class:
There is a listening and speaking exercise in grade eight English textbook on page 153. The teacher organised the students in groups of three members and asked them to "look at the devices presented in the picture and interview with one another about the devices. You will conduct the interview in three rounds. In round one, one of you will be interviewer, the second interviewee and the third recorder. The interviewer prepares and asks a question, the interviewee answers this question and the recorder writes both the question and the answers. In the second and third rounds you will do the same but by changing roles. The recorder becomes interviewer, the interviewer becomes interviewee and the interviewee becomes recorder. Is it clear?"Alemaz's group loudly shouted "yes" and the teacher asked them to demonstrate the activity to the whole class. Hence, Alemaz, Bedilu and Matewos continued as follows.

Almaz: "Would you please tell me the names of some of the devices in the picture?"
Bedilu: "Yes, lamp, camera, telephone, organ"
Almaz: "Which of the devices have you ever used?"
Bedilu: "Oh, I have used a photo camera"
Almaz: "When did you use it?"
Bedilu: "When we had a recreation visit during the semester break"
Almaz: "Oh that's very nice. Have you collected the pictures?"
Bedilu: "of course! I can show you"
Almaz: "Thank you, I would be happy to see your pictures."

Then the teacher said "thank you very much it was really interesting; what would you do for the second round?" "Continue interview by changing roles. For example, I will be an interviewer in the second round." said Matewos. "Good! I hope you all know what to do. Please start your interviews," said the teacher looking at other groups. After 10 minutes, she invited volunteers to show their interview to the class and finished the lesson.

References:
Temple, Ch., Steele, L. J., Meredith, K. S. Reading, writing and discussion in every discipline. Prepared for Reading and Writing for Critical Thinking Project 1998.
Košťálová, H., Skalická, P., Training of Modern Teaching Methods. People in Need. 2005.

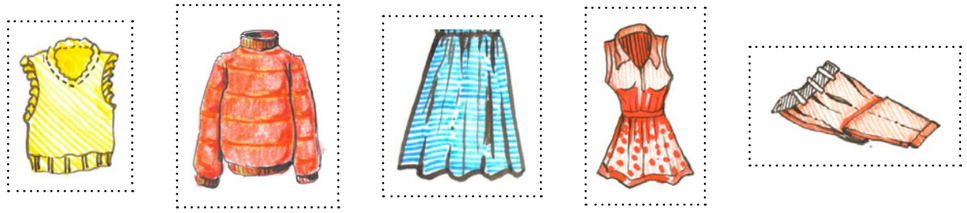
MATCHING

Time required: 5–10 minutes
Phase of ERR framework: Evocation and Reflection

Matching exercises are an interactive method that makes students connect relevant information, definitions, descriptions etc. For example, students can match expressions from the list with the correct definitions. There are numbers of ways a teacher can use matching exercises for learning. The most common way is when two parallel columns of information are presented and learners are asked to match each word, number or symbol in one column with a word, sentence or phrase in the other column. Other ways include asking students to individually define terms and then match their definition with a given definition on their textbook or blackboard. It is also possible to prepare two sets of cards. One set contains terms and the other the corresponding definition or description. Then students can be asked to find a correct description for each term from the given set of cards and make matching pairs.

Practical Tips:
- Justification should always be part of the matching exercise. The students must be able to explain why certain items (expressions, pictures, definitions) match with each other. It prevents matching exercise from random guessing that would not develop critical thinking.
- You can use matching exercises to help students compare related ideas or assess association between a variety of items.
- You should specify in the directions the basis for matching and whether or not responses can be used more than once
- You can make matching exercises more challenging by making the items in the two columns to be matched unequal. For example, if there are five words under column "A" then you can write six definitions under column "B". Otherwise, if students are sure about the definition of the four words then they can identify the correct match for the fifth word without really know its definition.
- Make matching exercises as interactive as possible. For example instead of writing the two columns of expressions to be matched on the blackboard, you can prepare two sets of cards. One set for the terms and another for definition. You can then ask students to work in pairs or groups to identify matching pairs from the two sets of cards.

Example from the class:
A grade one English teacher brought to class two sets of paper. One set contains the words: dress, jacket, trousers, skirt and sweater on separate pieces of paper. Another set contains the following pictures on separate pieces of paper.



The teacher gave the two sets of paper to students sitting in groups of four and told them: "look at the two sets of papers. One set contains words and the other pictures. Discuss in your groups and identify matching pairs from the two sets of paper" (*as an alternative, you can write the words on the chalkboard and ask students to open their text book on page 20 to do the matching activity*).

THE POST OFFICE

Time required: 15–20 minutes
Phase of ERR framework: Evocation and Reflection

The post office is an active learning method in which each student in the class writes one open ended question on a piece of paper about something they want to know. They all drop their questions into a box/post office designed for this purpose by the teacher. Then the teacher shakes the box and allows students to randomly pick up the piece of paper from the box. The students read the question on the piece of paper, writes their answer on it and drops it back into the box. The activity continues for two or three rounds this way. Finally, a whole class discussion can be held after randomly taking out pieces of paper from the box and reading both the question and the answers given on them.

Practical Tips:

– In advance prepare 'the post office' such as the following:
– Tell the students to write the questions on the top of the sheet of paper, so there is space below for writing answers.
– Make sure the students do not draw their own question. If by chance they do, let them to replace it by another one.
– Stress, that when writing the second or third answer, the students should not repeat the already mentioned point, but come up with something else.
– During the activity, move around and check if each student is involved in the activity
– You can use more than one post office box for a large class size. It saves time and maintains order. In this case, you will have to design a monitoring strategy to make sure all students are participating in the activity.
– If your students are from the lower grade levels or are not capable of constructing questions, you can put a lot of questions in the box and allow students to pick up a question and write their answers.
– Alternatively, you can also use post office for tasks, instead of questions. For example you may write letters, numbers, etc. and your students will write words beginning with the letters, two numbers whose sum gives the number written on the question paper, etc. In any case, follow the procedure with several rounds, so your students will solve different assignments and work on various tasks.

Example from the class:

A grade 8 Social studies teacher wanted to assess her students' knowledge and understanding of their role in combating HIV/AIDS. She said: "Now take out a piece of paper and write one open ended question about the role of youths in combating HIV/AIDS. I will write one example for you." She wrote the following question on the blackboard "**What can young people do to protect themselves from HIV/AIDS?"** Then she waited for five minutes for students to do the same. When students finished writing the questions, she explained, "Now insert your questions in the post office, pick up any other question from the box, write your answers and put it back to the box." She continued this for ten minutes and then she made them pick one piece of paper from the box and read aloud the questions and the answers written to the whole class.

References:
Temple, Ch., Steele, L. J., Meredith, K. S. Reading, writing and discussion in every discipline. Prepared for Reading and Writing for Critical Thinking Project 1998.
Košťálová, H., Skalická, P., Training of Modern Teaching Methods. People in Need. 2005.

4

PART

PART FOUR: ASSESSING STUDENT LEARNING

INTRODUCTION

Assessment is an important ingredient for the teaching learning process. However, assessment should be used not only to check what students have learnt but also to help students learn. The former is assessment of learning while the latter is assessment for learning.

A rank of assessment techniques that can be used for learning are discussed in this part. Observation, peer assessment, self-assessment and portfolios are some examples. The description for these techniques focuses on how to use the techniques in the classroom.

A general highlight on student assessment and its purpose is described in the first topic. The second topic explains the role of feedback on students learning and some practical tips for providing effective feedback. Peer assessment is the third topic. In addition to explaining peer assessment, this part lists important points to consider for teachers starting to use peer assessment. The fourth topic shows how to use appreciation and questions as a peer assessment method. The fifth topic – observation – describes how to use teacher's observation as an assessment technique. The sixth topic explains self-assessment. The final topic is teacher portfolio. The focus is on using a portfolio to assess teachers' performance in different contexts. Yet, the principles can be applied by teachers using a portfolio to assess their students.

STUDENT ASSESSMENT

Student assessment is the gathering of information about progress and challenges of an educational program, teaching, learning or other activities. Assessment is about several things at once. It could be about students' achievements or challenges they encounter; it can show how clearly the goals of our curricula are achieved and what mechanism should be taken to overcome the challenges. Assessment is central to the learning process and is a crucial aspect of teaching. It is the most significant factor that influences student learning.

Why do we assess students?

Most fundamentally, the purpose of assessment is to support and improve student learning. We assess to see progress and any challenges and the assessment can be done before, during, or after we present a lesson to see their prior knowledge, the involvement of learners during the lesson presentation, and their comprehension of the given lesson after the lesson presentation. We assess our students for different purposes. Some of the main reasons are for:

- **Diagnosis** – to establish entry knowledge level or behavior and to diagnose learning needs.
- **Feedback** – to give feedback on students' progress, to show their strengths and areas of development, to reinforce learning and motivate students.
- **Standards** – to maintain performance standards, to certify achievement, to facilitate progress, to predict future performance or selections, etc.
- **To make fair judgment**– it is through assessment that we can get detailed and fair information about our students by observing different students' engagement in practical, oral, written and other social interactions.

Types of assessments

There are two types of assessment: formative and summative assessment. **Formative assessment** or **continuous assessment** is a kind of assessment that takes place while the program or teaching-learning process is taking place. The teacher undertakes continuous assessments for various reasons: 1/ to get regular information about his/her students' learning progress and achievement of objectives; 2/ to support student's development by giving him/her individual feedback on his/her performance and directions for improvement; and 3/ to adjust his/her own instructions to the needs of the students. Such assessments are "continuous" because they form an integral part of instruction. It may occur before, during or after a lesson, a topic or a theme. It can have a form of writing assignment, group work, individual work, observation of students' behaviour, etc.
Summative assessment is an assessment made at the end of the program or school year based on the cumulating of the progress and achievements of the learner throughout the program or the school year. Summative assessment is helpful to judge about the overall progress or success of the program or learning. It also serves as a standard to certify certain levels of educational achievement such as final grade 8 national exams.

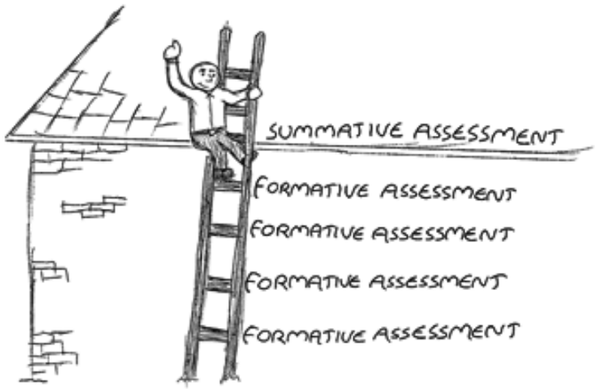


Fig.: Together, formative and summative assessments constitute a kind of ladder that helps both teachers and students keep a close eye on how well student learning is advancing up each "rung" of the ladder.
Source: http://www.ascd.org/ASCD/images/publications/books/silver2011_fig1.11.gif

How do we assess?

We may assess formally or informally to see the level of progress or the presence of the problem through the following ways:
Informal assessment is not necessarily planned and can be done spontaneously whenever a teacher notices changes in students' learning capacity or if he/she observes learner's confusion. It can be accomplished through a variety of techniques like questioning, observing a learner's work, reviewing a learner's homework, talking to a learner and observing learners during group work.
Formal assessment is planned and is closely matched to the basic competencies in the syllabus. Formal assessment may include a variety of techniques such as short tests, quizzes, oral examinations, performance assessment tasks, examinations, projects and portfolios. Formal assessment is usually graded and recorded.

References:

Beso II. A Concise Manual for Developing and Implementing CA in Teacher Education Institutions and Primary Schools of Ethiopia. 2005.
Towards Improving Continuous Assessment in Schools. A Policy and Information Guide. 1999.

PROVIDING STUDENTS WITH FEEDBACK

Feedback can be defined as any comment or reflection (written or oral) provided by others (i.e. teachers, peers) on any kind of student work.

Why do we provide feedback to our students?

Feedback has many purposes for the students who receive it and for the teacher. Feedback is important to communicate to students how well their knowledge, understanding and skills are developing in relation to the objectives of the teaching learning process. Feedback enables students to recognise their strengths and areas for improvement, and to plan with the teacher the next steps in their learning. In this way they are given opportunities to improve and further develop their knowledge, understanding and skills. Although teachers are most often the ones who provide feedback to students, peers can also be excellent sources of feedback.

Feedback can be given in different forms or ways. It can be in the form of oral, written, or facial expression. Forms of feedback include:

- oral discussion with class, groups or individual students;
- written comments;
- general comments to the class about aspects of the activity in which students excelled and aspects that still need improvement;
- examples of good responses;
- peer evaluation / assessment and
- self-evaluation

Practical tips on providing feedback to students

Providing students with the right kind of written feedback can make a significant difference in their achievement. Some points for providing useful feedback:

- Feedback should be specific, clear, to the point and concise
- Students should continue working on a task until it is completed and accurate. This enhances student achievement. It means that you should provide feedback repeatedly at each stage of the student's improvement until the standard has been met.
- Effective feedback must be immediate. Delay in providing students with feedback diminishes its value for learning.
- Start the feedback with appreciation, regardless of the level of the student's work. Avoid making only negative comments. Offer a word of praise or encouragement wherever you can.
- Keep the record of feedback you gave to students and refer to it later.
- Before you comment on a point, make sure that you understand what the student is attempting to say. If you think you might know what he means, rewrite the point in clearer terms, introducing it with a phrase such as "I think you mean..." or "Are you saying that...?"
- Pose questions which can be an effective form of feedback when the teacher wants the student to think in new and deeper ways or point students toward a new concept. Questions can also be used to help students to further see and explain certain concepts that are important.
- Feedback should explain, not label student work.

PEER ASSESSMENT

Peer assessment refers to students individually assessing each other's work using a predetermined list of criteria. It develops the ability of students to make independent judgments by involving them in giving feedback on other students' work.

Peer assessment is much more than students marking each other's work. To improve learning, it must be an activity that engages students with the quality of their work and helps them reflect on how to improve it. Peer assessment enables students to give each other valuable feedback so they learn from and support each other. It adds a valuable dimension to learning: the opportunity to talk, discuss, explain and challenge each other which enables children to achieve beyond what they can learn unaided. Peer assessment helps develop **self-assessment,** which promotes independent learning, helping children to take increasing responsibility for their own progress. Peer assessment plays a vital role in **formative assessment,** but it can also be used as a component in a **summative assessment** package. For meaningful peer assessments, students must have a clear understanding of the objectives of the assessment, what to assess and what the criteria are for assessing their peer's work. At first the criteria for assessment can be provided by the teacher; once the students have more experience, they can develop them themselves.

Important points for teachers starting to use peer assessment techniques:

- Devise clear assessment criteria with students so they gain inside knowledge of the process.
  To initiate peer assessments with a group of students spend some time on an introduction. For instance, the teacher provides a sample writing or speaking task. As a group, students determine what should be assessed if their levels are higher otherwise the assessment criteria are given by the teacher. Then the instructor gives students a sample completed assignment. Students assess this using the criteria they have developed, and determine how to convey feedback clearly to the fictitious student.
- Teach students how to listen, observe, provide constructive feedback, etc.
- Give students written feedback for marks as further clarification.
- Use peer assessment as an additional marking method, i.e. 1) peer assessment mark 2) teacher's mark
- Students need to use anonymous feedback (overcomes problems like "betraying" friendships)
- Create a safe environment in which "mistakes" are instrumental to the learning process. Make students aware that whatever the quality of their colleagues' work might be, they should start by appreciating it and indicate what needs to be improved through questions and specific recommendations.
- Emphasise the process of peer assessment, not only the results.

Advantages of peer assessment

- Helps students to become more autonomous, responsible and involved.
- Encourages students to critically analyse work done by others, rather than simply seeing a mark.
- Helps clarify assessment criteria.
- Gives students a wider range of feedback.
- Reduces the marking load on the teacher.
- Several groups can be run at once as not all groups require the lecturer's presence. Hence, this saves time.
- Students also learn how to accept and give productive criticism and praise.
- Providing feedback to peers helps students to see critically their own work, the comparison promotes self-reflection.

APPRECIATION AND QUESTION AS A PEER ASSESSMENT METHOD

The method "Appreciation and Question" is the kind of peer assessment where students learn to recognise specific qualities of assigned work. It is a simple method that a teacher can use even when the students have limited or no prior experience with assessing peer work. Appreciation and Question can be used for assessing any kind of class work or homework – a written assignment, a picture, a presentation, a resolved math or physics problem etc.

Before your students start providing assessment of their peers' work, remind them what exactly the aim of the given task was, e.g. "draw and describe the human digestive system". Make sure they stay focused on this objective. Several rules should be followed and well explained to the students when using Appreciation and Questions:

1/ Always start with appreciation. Write down point that you appreciate about the given work.
2/ Be as specific as possible. Don't accept appreciation like "that is nice", "it is good work", "I like it" etc. The students must express specifically what they like. For example they can write "your points are listed in a logical structure, I appreciate that you have doubts about the provided information and you want to know more about the topic".
3/ If you find something that requires improvement or is not clear to you, turn it into a question. Instead of stating: "There is a mistake on your drawing, an incorrect sequence of organs, the stomach must be before the intestine", you can ask: "Why did you put the intestine before the stomach on your drawing? What are the functions of these two organs? Can they fulfil these functions in the sequence you used on your picture?"

It is very important that the appreciations are made before the questions. The students are aware of their strong points; they learn to appreciate them by themselves and through others. They learn that you can find something successful in each piece of work.

The participants can write the appreciations and questions in their notebooks. They can also write their appreciations on slips of paper of what they like about the work and their questions about what is not clear for them on the reverse side of the slips. When all participants finish their appreciations and questions, invite some of them to read their appreciations. After several appreciations they can write down several questions. The question must not replace critique or recommendation.

References: Interkulturní výchova ve školním vzdělávacím programu. Edited volume of the Varianty Project. 2005.

OBSERVATION

Observation is a direct means for learning about students, including what they do or do not know and can or cannot do. This information makes it possible for the teacher to plan ways to encourage students' strengths and to work on their weaknesses.

Observation is most effective when it follows a systematic plan. This might involve, for instance, seeing and recording which students use physical materials, which do most of the problems mentally, which use thinking strategies, and which rely on memorised facts. It may be helpful at times to focus on observing one student within the context of a group setting. Observation tools are instruments and techniques that help teachers to record useful data about students' learning in a systematic way. Some observation tools include:

- **Anecdotal notes**: Short notes written during a lesson, as students either work in groups or individually, or after a lesson.
- **Anecdotal notebook**: A notebook where a teacher records his or her observations. An index on the side, organised by either student name or behaviour is helpful.
- **Anecdotal note cards**: An alternative system to an anecdotal notebook in which the teacher records observations using one card per child. One way to facilitate this process is to select five children per day for observation. The cards can be kept together on a ring.

Actions based on observation results

What is observed and recorded about students' behaviour and work can be used by teachers for reflection and taking action. For example, a teacher may reflect on what is noticed in the student's work and may choose to answer the following questions:

- What did looking at this body of student work make me think?
- What questions did this activity raise for me?
- What can I do to support the student?

SELF-ASSESSMENT

Self-assessment refers to the students' or teachers' own assessment of their progress in knowledge, skills, or attitudes.

TEACHER SELF-ASSESSMENT

Teacher self-assessment plays an essential role in improving teachers' teaching performance. In order to serve as an effective performance improvement tool it should be conducted on a regular basis and in standardised way.

Questions for teachers to self-assess their teaching performance:

1. Did this lesson go well? (Were the planned activities successfully implemented?)
2. Have the student learning objectives been achieved by all students? What is the evidence of that?
3. Did any student or group of students fail to benefit (able, or average, or less able students, etc.)? If so, how could this have been avoided?
4. What changes can I make in the future before giving a similar lesson to another class?
5. What have I learnt about this class, or are there particular students that might influence future lessons in this class?
6. What have I learnt about this topic or subject matter that might influence future lessons?
7. Are there any immediate actions I should take following this lesson?
8. Am I satisfied with my general planning of this lesson and its implementation and monitoring? Did the lesson sustain students' attention and interest?
9. Did any problems occur in the lesson that I should take note of?
10. How did this lesson fit in with the teaching in the department and school?

Teachers' reflections or assessments of their lessons and their teaching are a key task of effective teaching, and it forms an important part of their thinking about their lesson organisation and teaching methods. **However, teachers not only need to develop their abilities to reflect critically on their own classroom teaching but also to teach and guide their students to assess their own learning.**

STUDENT SELF-ASSESSMENT

Student self-assessment enables students to critically see to what extent they have achieved the learning objectives. For successful student self-assessment a set of clear success criteria (assessment criteria) must be developed in advance by the teacher and/or the students. Self-assessment enables students to experience an improvement in their learning because they come to know how they learn rather than just what they learn. It also increases motivation to learn and growth in self-esteem. The implementation of student self-assessment in the classroom does not ignore the role of the teacher. The very important role of the teacher involves:

– sharing with students the success criteria for each assessment activity and ensuring that students understand them
– explicitly teaching students how to apply those criteria to their own work
– providing students with feedback to help them improve.

Teachers can use written form of self-assessment to encourage students to reflect on their learning experience such as rubric, questionnaire, graphic organisers etc. Oral reflection, whether as a whole class or group within the class, might sometimes be more useful. Alternatively, teachers could devote some time to questioning students about what they have recorded on their rubric and asking them for explanations. Examples of specific strategies and methods of student self-assessment will be discussed in detail in PIN MTM advanced training module and manual.

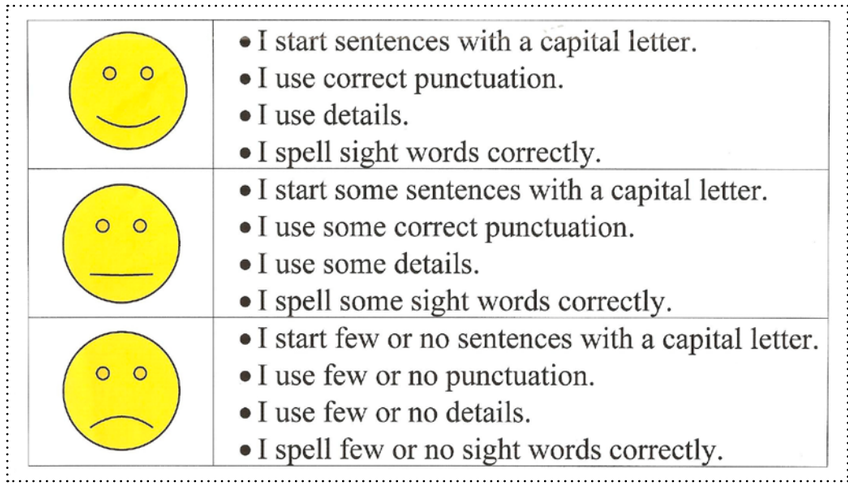


Figure: Example of a student self-assessment rubric for assessing English language writing skills. Source: http://www.boyd.kyschools.us/docs/Self%20Assessment%20Rubric.jpg

References:
Ethio-Italian Development Cooperation, Self-Evaluation Manual. 2005
Assessment for Learning at http://www.assessmentforlearning.edu.au/

TEACHER PORTFOLIO

A teacher portfolio is a collection of evidence that display teacher's professional effort, progress and achievements throughout a particular period of time. The portfolio serves as a learning and performance evaluation tool. It should always have **a clearly defined purpose** and **criteria for evaluation**.

TYPES OF TEACHER PORTFOLIOS

- **Working Portfolio** contains items that show how a teacher has progressed toward meeting a particular goal. For example, if a teacher wants to move toward a more student centered learning approach, then his/her portfolio contains lesson plans, teaching aids, samples of student's work, self-reflections, useful information resources, etc. related to lessons when the teacher attempted to use active learning methods.
- **Showcase Portfolio**, as the name indicates, is designed to show the teacher at his/her best. Thus, it contains a collection of items that have been selected to show the range and depth of skills the teacher possesses. Such a portfolio might consist of certificates demonstrating acquired skills, recommendation letters or performance reviews by a superior, examples of implemented high-quality lesson plans, samples of excellent student works, etc. This kind of portfolio can be submitted for promotion to a better position or a new employer.
- **Progress Portfolio:** contains multiple examples of the same type of work done over time and are used to demonstrate progress. It usually also includes received feedback in individual stages.

PHASES OF PORTFOLIO DEVELOPMENT

Portfolio development needs to be systematically conducted following a series of phases.

Phase 1: Organisation and Planning

Understanding the criteria for portfolio development and its purpose influences planning of the next steps. By exploring essential questions at the beginning of the process, the teacher will fully understand the purpose of the portfolio. Key questions for the teacher must include:
How do I select items and materials to reflect what I am doing? How do I organise and present the items that I have collected? How and where will the portfolio be maintained and stored?
An example of the required content of teacher working portfolio for PIN MTM training participants:
– Lesson plans following ERR framework
– Samples of students work demonstrating use of MTM
– Teaching aids and materials prepared for the lessons
– Plan for a microteaching session
– Teacher's written self-reflection
– Samples of teacher's course work, handouts, other training resources

Phase 2: Collection and Selection

This process involves the collection of meaningful artefacts and products reflecting teachers' experiences and goals. After the initial phase of gathering all relevant pieces of work, decisions must be made about the best pieces. All selections included in the portfolio should clearly reflect the criteria and standards identified for evaluation.

Phase 3: Reflection

Wherever possible, there should be evidence of the teacher's self-reflections upon the teaching process. These reflections can take the form of records of evidence, documents of students' progress, the teachers' self-reflections on the instructions and other forms of reflections on their experiences. In addition, other teachers', supervisors', vice principals' reflections, formal performance evaluations, written comments upon the products, processes, and works articulated in the portfolio should also be included when appropriate.

References:

Hart, D. Authentic Assessment: A Handbook for Educators.
Menlo Park, CA; Addison-Wesley Pub. Co. Excerpted from Classroom Teacher's Survival Guide. 1994.
Paul S. George. What Is Portfolio Assessment Really and How Can I Use It in My Classroom? in Gainesville, FL. Teacher Education Resources. 1995.
Venn, J. J. Assessing students with special needs (2nd ed.). 2000.
Steele J. L., K. S. Meredith, & C. Temple. A Framework for Critical Thinking Across the Curriculum (Prepared for Reading and Writing for Critical Thinking Project) 1998.

5

PART

PART FIVE: MODEL LESSONS

INTRODUCTION

Four model lessons are presented in this part. Each model lesson demonstrates how the active learning methods discussed in this manual can be used in the classroom. In addition, how to evocate, help students realise meaning and reflect (the three stages of learning) is demonstrated.

The first model lesson is bull jumping. The focus is to demonstrate how to use the active learning method "ReQuest Procedure". However, "Mingle, Mingle" is used during the evocation stage of learning and whole class discussion during the reflection stage of learning.

The second model lesson uses brainstorming for evocation, K-W-L for realisation of meaning and reflection.

The other two model lessons are reading lessons and they show how the ERR framework can be used to promote critical thinking when working with stories and fiction text.

We strongly encourage you to think about how you can implement similar methods for the subject you teach as you read the model lessons.

MODEL LESSON 1: BULL JUMPING

MTM: ReQuest Procedure
Grade: 8
Subject: English

1. MINGLE MINGLE (EVOCATION):

Teacher: "We have several traditions and cultures in our country, especially in rural areas. Weddings are among the more traditional ceremonies with varieties of practices. Think of the different Ethiopian wedding traditions you have heard about and list them down in your notebook for five minutes." When the students finish reading, the teacher tells them:
"Leave your notebooks on your desks, walk around the room contemplating on what you have written until I give you a signal to stop."
"When you hear the signal, stop walking and share what you have been thinking about with your peer nearest to you."
"You stop your discussion when you hear the second signal and continue walking and contemplating again."

After this is done for about ten minutes, the teacher lets them go to their seats and asks:
"Could you share with the class the traditional wedding ceremonies you have discussed?"

Possible answer of a student: "Nail cutting and 'Enshoshial' in Guraghe people."

2. REQUEST PROCEDURE (REALISATION OF MEANING):

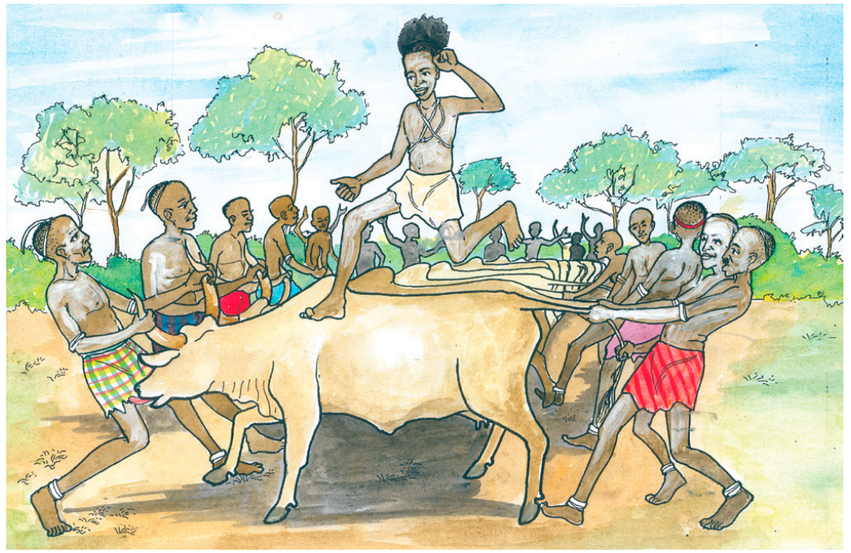
Teacher: "We have heard a lot about traditional wedding ceremonies in different communities of Ethiopia. Thank you so much. Now read the following text using the method ReQuest procedure."

The teacher explains to the students that in the method ReQuest Procedure, two students (A and B) read through a text and stop after each paragraph or part. The students decide on the passage to be read, it is up to them how long each part is. After reading the first part (silently) the students close their books. Student A explains (without looking at the text) the main ideas and student B asks a question related to the given part of the text. They note the question on a sheet of paper, but needn't answer it. Then they both read the next paragraph (part) and the roles are reversed. Now student B clarifies the content of the paragraph and student A asks a question. The question is written down again. When they are finished, they read the next paragraph. Finally the pairs share the questions with the whole class and discuss the questions with the teacher.

Text: Bull jumping

The Hamer, Tsemay, Banna and Besada people share traditions and rituals. One of the most important forms of their tradition is the 'jumping over the bull'.

If a young man wants to marry a girl of his choice, he will have to jump over bulls picked by the girl's family. He has to run over the backs of about ten cattle standing side by side four times. Falling is not allowed.



He is required to jump over them four times: two times in each direction. He is assisted by friends called the maz; those who have successfully performed the jump in previous years. They hold the cattle to prevent the young candidate from falling.

If the jumper falls, it is considered to be a bad sign and he is given another chance a year later. If the groom-to-be succeeds, he may keep the girl in exchange for cattle given to her family. For two months, the betrothed couple will share blood and milk (blood from the cow's neck is mixed with milk and is drunk).

Source: Adapted from Ethiopian Tourism Commission Newsletter, 2006

3. WHOLE CLASS DISCUSSION (REFLECTION):

After all the pairs finish reading the text, the teacher starts a class discussion.
Teacher: "Can you share your questions with the whole class?"
Student 1: "How many bulls does the boy need to jump over to marry a girl?"
Teacher: "A nice question, who can answer the question?"
Student 2: "It's about ten bulls."

The teacher continues sharing and answering questions the same way. He/she can write important points and students' ideas on the backboard. Then he/she finishes the lesson.

MODEL LESSON 2: TRANSFER OF HEAT BY CONVECTION AND RADIATION

MTM: K-W-L
Grade: 8
Subject: Physics

1. BRAINSTORMING (EVOCATION):

Teacher: "In the last period, we learned about heat transfer by conduction. Can anyone say in short what conduction is and give us an example?" Some students raise their hands; the teacher asks one of them to speak up.

Student: "Heat transfer by conduction happens when there is physical contact between two objects and heat is transferred from the hotter to the colder one. For example a hot stove and a cooking pot.

Teacher: "Excellent, Alemayehu. Thank you. Today you are going to learn about other types of heat transfer by convection and radiation. But before you read the text, I would like to see what you already know. We will explore it by using a K-W-L method."

K-W-L is an abbreviation for Know – Want to know – Learned. It is a table with 3 columns where the teacher and the students list what the students already know at the beginning of a lesson, what else they want to know and after the lesson they record what they have learned. The teacher draws the KWL chart on the blackboard and invites the students to copy it in their note books. Then he/she asks them to discuss in pairs and write down in 5 minutes **as much as they know about transfer of heat within a gas or liquid**. The teacher can also tell them that they should think about their experience with observing sun shining on a water tank or a house or hot smoke rising upwards from the fire. Teacher: "What happens with the heat in gas or liquid?" All ideas are allowed and valid. When the time is up, the teacher asks randomly some pairs to share their ideas with the whole class and the teacher writes them down on the blackboard.

The class discussion can proceed as follows:

Pair 1: "We already know that heat can come from the sun, charcoal or electric stove."

Teacher: "Thank you. Yes you are right; the source of heat energy could be the sun, an electric heater, charcoal, etc. other idea?"

Pair 2: "We think that when liquids and gas are in contact with heat, they boil or expand etc."

Teacher: "Thank you. Yes, you are right; the heat energy has different effects on different types of objects. Do you have any other ideas?"

Pair 3: "We think when water is exposed to heat it boils and the molecules are contracted."

Teacher: "Thank you for your ideas. Do you all agree that when water is boiled, the water molecules will contract?"

Pair 4: "We don't think so."

Teacher: "Alright, if we are not sure about the change, we can put it under the 'want to know column'. "What is the effect of heat energy on water?"

Teacher: "Do you have another question about heat transfer by convection & radiation?"
Pair 4: "Last time we learned about heat transfer by conduction. But what is the difference between heat transfer by conduction, convection & Radiation?"

Teacher: "That's an interesting question, I will write it down in W column."

Pair 5: "What is the benefit of transferring heat energy?"

Teacher: Thank you, I will write the question down in the middle column."

Then the teacher thanks the students for their bright ideas and tells them that they will move on now and learn more about heat transfer from the textbook.

Example of KWL table filled in after the brainstorming:

Know What do we know?	**W**ant to know What do we want to know?	**L**earned What did we learn?
– sources of heat: sun, charcoal, electric stove – heat has different effect on objects (it melts, boils, expands)	– What is the effect of heat energy on water?" – What is the difference between heat transfer by conduction, convection & Radiation?" – What is the benefit of transferring heat energy?	

2. LEARNING FROM ONE ANOTHER (REALISATION OF MEANING)

The teacher divides the class into groups, makes sure each group has the textbook with the text. The teacher tells the students to read the text about heat transfer by convection and radiation in groups and use a special procedure – learning from one another. For each paragraph of the text, one group member will take a role of a "teacher". It means after reading one paragraph the "teacher" does 3 steps: summarise the main points, explain unclear points raised by other members and pose one question to others. The next paragraph will be jointly read and a different person will become a teacher.

Text – Paragraph 1: Transfer of Heat Energy by convection

The transfer of heat from one place to another by the actual movement of particles of the medium is called convection. *Convection takes place only in fluids (gas and liquids). It is caused by the expansion of fluid particles when it is heated. As fluid particles expand, its density decreases. Thus the lighter portion of the fluid rises, and cold fluids takes its place and get heated. In convection, heat is carried by the moving medium. Convection can occur only in liquids and gases.*

If the method is new for the students, the teacher can stop the groups after the first paragraph and model the procedure with selected groups of students:

Teacher: "I hope you've finished reading the first paragraph; which one of your group members is assigned to summarise this part? Can you share your summary to the class?"

Student: "Heat transfer by convection is made by movement of particles in the thing; it occurs only in liquids & gases. When the liquid particles are heated they expand and move."

Teacher: "Very nice, could you share your question with us?"

Student: "What is the difference between conduction and convection?"

Teacher: "It's an interesting question; could anyone from your group answer?"

Student: "Conduction is heat transfer by direct touch/connection of a cold material to heat. But convection is by movement of particles in the liquid or gases"

"Fine, now continue reading and follow the same procedure with the next 4 paragraphs."

Text – Paragraph 2: Transfer of heat energy by Radiation

Heat transferred by radiation is also called heat radiation. *Heat radiation is carried by an electromagnetic wave called* infra-red wave. *This wave is not visible to human eyes. All objects emit heat radiation. For example, if an object is hotter than its surroundings, then it will give out heat radiation. In doing so, it will lose heat and cool down. Heat from an electric heater and heat from burning charcoal reaches its surrounding by radiation. For example, when we sit around a fire we feel warm. Conduction or convection is not responsible here since air is a poor conductor of heat and the warm air rises upwards. The heat reaches our body from the fire by radiation. Heat can be transmitted by radiation through vacuum or a material medium.*

Text – Paragraph 3

Types of surfaces will affect how quickly the object heats up. A rough and black surface is a good emitter and absorber of heat radiation while a shiny and polished flat surface is a poor emitter and absorber of heat radiation.

Text – Paragraph 4

Radiation is the transfer of heat from one place to another without a material medium. The heat of the sun reaches the earth by the process of radiation. Heat can be transferred by radiation in a vacuum.

Text – Paragraph 5

Heat radiation is controlled in a house construction, in types of clothes worn and a thermos flask. For example, houses built in a very cold climate use special materials for flooring, walls and roofing. The heat supplied to warm the house is absorbed by good absorbers and emitted back to warm the room (house). People living in hot areas wear white clothes to reflect the heat radiation because white clothes are poor heat absorbers.

3. BACK TO THE K-W-L CHART (REFLECTION)

Teacher: "Return to the "Want-to-know" column and think about what have you learned. Individually list what you have learned about heat transfer by convection and radiation in the "Learned" column. Write down both, the answers to the questions as well as other new information."

Teacher: "Discuss in pairs the points in the "learned" column in your individual K-W-L table."

Whole class discussion: The teacher collects the ideas from the students in the class and writes them down in the "Learned" column on the class K-W-L chart on a blackboard.

If some questions remain unanswered the teacher can use different strategies. One strategy can be forwarding the questions to the class; another one is giving it as a home assignment or the teacher can find out and prepare the answers for the next period. The strategy should be decided based on the nature and complexity of the pending question. The teacher makes sure that all questions in the W-column will be answered.

Know What do we know?	**W**ant to know What do we want to know?	**L**earned What did we learn?
– sources of heat: sun, charcoal, electric stove. – Heat has different effects on objects (it melts, boils, expands)	– What is the effect of heat energy on water?" – What is the difference between heat transfer by conduction, convection & radiation?" – What is the benefit of transferring heat energy?	– When water is exposed to heat energy, the molecules expand & its density decreases. Thus the lighter portion of the fluid rises, and cold fluids takes its place and get heated. – Heat transfer by **conduction** mainly happens on solid objects; it happens when material is in contact with any source of heat. – Heat transfer by **convection** happens only in liquid and gases; it is caused by the expansion of fluid particles when it is heated. – Heat transfer by **radiation** is transfer of heat from one place to another without any material through radiation; for example the heat from the sun. – Heat from fire, electric heater, charcoal are examples of heat transfer by radiation. – When air is heated the molecules of the air expand becoming less dense, and rise. Examples of heat transfer by convection include smoke rising from a chimney or a fire.

The text was taken from Grade 8 Physics textbook page 75–77.

MODEL LESSON 3: ENCOUNTER WITH BULLIES

A reading lesson
Grade: 8
Subject: English

1. FIRST PRE-READING ACTIVITY (EVOCATION):

Teacher: "Today we will read a passage entitled: "The encounter with bullies", before we start reading the passage, I would like you to individually answer the following questions and share your answers in pairs:

"Were you sent to the market or the shop during your childhood? What special encounter do you remember?"

Teacher: "Could anyone share his/her encounter to the whole class?"

Possible answer from a student: "When I was about 8 years old, I was sent to the shop to buy sugar with two birr and I lost the money on my way to the shop. I was very upset and started crying. I was afraid I would be beaten if I returned home without the sugar. To my great relief, a kind person saw me crying and gave me two birr."

2. READING PART 1 OF THE TEXT (REALISATION OF MEANING)

Teacher: "Now read part one of the story and try to answer the questions below while reading."

– What do you think the aunt look like?
– What about the house and the place?
– Why do you think the aunt is so cruel?

An encounter with the bullies

Text: Part 1

My name is Mulunesh. My mother passed away when I was four years old. She was such an angel and took great care of me. I was really happy. My parents and I lived in Jimma but after my mother's death, father found a job in Nekemte. I had to stay with my aunt as a result.

My aunt was very cruel and she always found fault with me. She was extremely harsh. Whenever she found out that I wasn't doing my chores she would yell at me and order me to work in the garden for long hours. Each time she yelled, her face turned fierce like that of a crocodile. To escape her wrath I would extend my time in the garden under the hot sun. There I would admire wild birds, rocks and any other natural features that fascinated me.

One afternoon, my aunt sent me shopping to the market.

3. SECOND PRE-READING ACTIVITY (REFLECTION AND EVOCATION):

Teacher: "Have you got answers for the above questions? If yes, share your answers to the person next to you" When the students finalise discussing their answers, the teacher lets some of them share their answers. He/she makes sure the students understood the text.

Teacher: "Now, try to predict how the story will continue and discuss it in pairs." "What is going on in the picture? What do you think is going to happen" After short pair discussions the teacher invites volunteers to share their predictions with the whole class. The teacher tries to ensure students' ideas are linked to the text and to the story of Mulunesh.

4. READING PART 2 OF THE TEXT (REALISATION OF MEANING):

Teacher: "Now read part two of the story and try to answer the questions below while reading."
– What does the second part of the story talk about?
– What was the reaction of the aunt when the girl came back without the items?
– What did the aunt do in the end?

Text: Part 2

While I was going to the market, a gang of boys attacked me and snatched my shopping basket. They took the shopping money and sent me running home in a panic.

"What is the matter Mulunesh?" my aunt asked rudely.

"I met a gang of boys and they attacked me," I said.

"You've got to get over it," she said, "Now, Go on. Go to the market."

"I'm scared," I said.

"For the last time, take this money, the shopping list, and this club," she ordered. "If those boys bother you again, fight them."

I was baffled that my aunt was telling me to fight a gang of bullies!

"But I am really terrified," I said.

"Don't you dare come to this house until you have brought the items on the shopping list," she said.

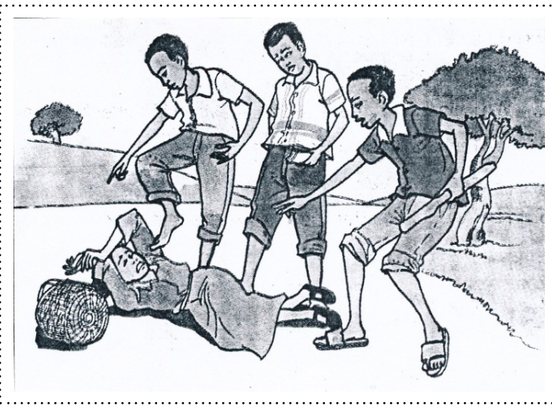
"They'll beat me. They'll beat me up," I sobbed.

"Then you will sleep outside. Don't come back here!"

I ran up to the door and tried to force my way past her. She slapped me across the face and pushed me back. I stood on the veranda and cried. Please, let me wait until tomorrow," I begged.

"No," she said. "Go now! If you come back without those items, I will teach you a lesson."

She slammed the door and I heard the key turn in the lock. I was alone and it was getting dark. The gang would be waiting for me if I went back to the market.



5. THIRD PRE-READING ACTIVITY (REFLECTION & EVOCATION):

Teacher: "Have you got answers for the above questions? Share your answers to the person next to you" When the students finalise discussing their answers, the teacher lets some of them share their answers. He/she makes sure that the students understood the text.

Teacher: "Now, predict how the story will continue and discuss it in pairs and share your predictions to the whole class."
– What do you think the girl will decide? What do you think she will encounter?
– What would you do if you were in the place of the girl?
– Do you think the aunt will change her decision? And how?

6. READING PART 3 OF THE TEXT (REALISATION OF MEANING):

Before the lesson the teacher prepares 1 copy of part 3 of the text for each group and cuts the text into four pieces.

Teacher: "Part three of the story will be presented to you in four pieces. While you read in groups, I want you to order each piece of the story in a logical order."

Text: Part 3

"I would either get beaten at home or away from home," I thought. "If I got beaten at home, there was absolutely nothing I could do about it; but if I was beaten along the lonely path, I would have the chance to fight and defend myself."

I walked slowly down along the village road, tightly holding the club as I came closer to the gang. I was so terrified that I could barely breathe.

"There she is again!" They shouted and surrounded me quickly. I gripped my club and with every ounce of strength I struck at the first boy. I then hit the other one who attempted to punch me. He collided with the boy who was trying to run away with my money and the basket. The boys stared at me in disbelief.

They were confused. I am sure what they got was not what they had expected. I asked what else they were waiting for as I raised the club. The boys scattered and ran away as fast as they could, disappearing in the darkness. On my way back I still held the club firmly. There was not a single bully in sight.

Students finish arranging the pieces. The teacher asks volunteers to explain why they chose the order.

Teacher: "Now compare your answers while I read aloud the right order of the story"

When the teacher finishes reading, he/she invites students to summarise the last part of the story. The teacher makes sure the main parts of the story were described by the students.
At the end the teacher asks the class: "What is the main message of the story?"

Source: Grade 8 English textbook on page 26–29

MODEL LESSON 4: FOUR WIVES

A reading lesson
Recommended Grade: 8
Subject: Social Science

1. BRAINSTORMING (EVOCATION):

The teacher writes the following questions on the blackboard:
– What amazing or funny stories have you ever heard about couples?
– What is your criteria for selecting a life partner?
– Is polygamy good or bad practice? Why?

Teacher, "face the person next to you and discuss the answers to the questions" After a few minutes, he/she invites some pairs to share their answers to the whole class.

2. READING PART 1 OF THE TEXT (REALISATION OF MEANING):

The teacher writes the following questions on the blackboard.
– What does the story talk about?
– Which one of the four wives do you appreciate? Why?
– What do you think might be the reason for the man to hate his first wife?

Then the teacher distributes part one of the story to each student and says: "Read the first part of the story to find the answers to these questions"

Text: Part 1

There was a rich merchant who had 4 wives. He loved the 4t hwife the most and adorned her with rich robes and treated her to delicacies. He took great care of her and gave her nothing but the best. He also loved the 3rd wife very much. He was very proud of her and always wanted to show her off to his friends. However, the merchant was always in great fear that she might run away with some other man.

He loved his 2nd wife too. She was a very considerate person, always patient and in fact was the merchant's confidante. Whenever the merchant faced some problems, he always turned to his 2nd wife and she would always help him out and advise him through difficult times.

Now, the merchant's 1st wife was a very loyal partner and had made great contributions in maintaining his wealth and business as well as taking care of the household. However, the merchant did not love the first wife and although she loved him deeply, he hardly took notice of her.

3. SUMMARY OF PART 1 OF THE TEXT (REFLECTION):

After students finish reading, the teacher facilitates a class discussion based on the questions raised.

4. PRE-READING ACTIVITY: PREDICTION (EVOCATION):

The teacher orally asks, "What do you think will happen to the man and his four wives? What would you do if you were in the place of the man? Why?" Again, the teacher facilitates a class discussion to hear students' answers to these questions.

5. READING PART 2 OF THE TEXT (REALISATION OF MEANING):

Here the teacher writes the following questions on the board:
– What main things happened in the second part?
– How did the rich man feel upon hearing his wives responses?
– What would be your response if your partner asked you the same thing the rich man asked his four wives?
– What is the main message of the story?

Then the teacher distributes the second part of the story with the instruction to "read the second part of the story individually to find answers to these questions."

Text: Part 2

One day, the merchant felt ill. Before long, he knew that he was going to die soon. He thought of his luxurious life and told himself, "Now I have 4 wives with me. But when I die, I'll be alone. How lonely I'll be! "Thus, he asked the 4th wife, "I loved you most, endowed you with the finest clothing and showered great care over you. Now that I'm dying, will you follow me and keep me company?" "No way!" replied the 4th wife and she walked away without another word.

The answer cut like a sharp knife right in to the merchant's heart. The sad merchant then asked the 3rd wife, "I have loved you so much for all my life. Now that I'm dying, will you follow me and keep me company?" "No!" replied the 3rd wife. "Life is so good! I'm going to remarry when you die!" The merchant's heart sank and turned cold.

He then asked the 2nd wife, "I always turned to you for help and you've always helped me out. Now I need your help again. When I die, will you follow me and keep me company?" "I'm sorry, I can't help you out this time!" replied the 2nd wife. "At the very most, I can only send you to your grave." The answer came like a bolt of thunder and the merchant was devastated.

Then a voice called out: "I'll leave with you. I'll follow you no matter where you go." The merchant looked up and there was his first wife. She was so skinny, almost like she suffered from malnutrition. Greatly grieved, the merchant said, "I should have taken much better care of you when I could have!"

6. SUMMARY OF PART 2 OF THE TEXT (REFLECTION):

After students finish reading, the teacher arranges a class discussion based on the questions.

7. PRE-READING ACTIVITY: PREDICTION (EVOCATION):

The teacher asks "What do you think will happen in the third part of the story?" The teacher listens to students' responses and continues to the next activity.

8. READING PART 3 OF THE TEXT (REALISATION OF MEANING):

The teacher writes the following questions on the board
– What different things happened in the third part of the story?
– Do you agree with the writer's representation of different life aspects through the four wives? Why?
– What have you learned from the story?

Then he distributes the third part of the story to each student and instructs students to "read the third part of the story to find answers to these questions while reading."

Text: Part 3

Actually, we all have 4 wives in our lives. The 4th wife is our body. No matter how much time and effort we lavish in making our body look good, it'll leave us when we die.

Our 3rd wife is our possessions, status and wealth. When we die, they all go to others. The 2nd wife is our family and friends. No matter how close they have been there for us when we're alive, the furthest they can stand by us is up to the grave.

The 1st wife is in fact our soul, often neglected in our pursuit of material wealth and sensual pleasure. Guess what? It is actually the only thing that follows us wherever we go. Perhaps it's a good idea to cultivate and strengthen it now rather than to wait until we're on our death bed to lament.

9. FINAL SUMMARY AND REFLECTION:

After students finish reading part three of the story, the teacher facilitates a class discussion to answer the questions.

A

ANNEX

ANNEX A: ICEBREAKERS

Icebreakers are quick activities during which the students get to know each other and energized to attentively follow a lesson. The activities aim to “break the ice” or make students warm to each other and get motivated to learn. These activities build trust, a sense of fun, and help students get to know each other. They can be used at the start of a session, in the middle to energise the students, or even at the end.

Back to the board
The group of students is split into 2 teams. Each team chooses one person who has to come and sit with their 'back to the board'. Write a word on the board which the team can see but the chosen person cannot. The team have to answer 'yes' 'no' questions so that the chosen person can try and guess the word on the board. This icebreaker can be used to summarize the main points of the lesson or rehearse the previous lesson topic.

Charades/hints
Make cards with topics on them e.g. occupations, song titles etc.
One student will read the card and show the word by using mime. There is no speaking allowed.
The group of students has to guess/identify the word on the card.

Chinese whispers
All students sit in a circle. Choose one of them to begin the whisper. They should choose a short story of about two or three sentences. The first student whispers the story to the student on his/her right. The second student whispers to the student on his/her right. Once they have whispered the story they do not repeat it. Continue around the circle until the whisper has reached the last student, seated to the left of the first student. They tell the final story to the whole class, followed by the first student who tells the original story.

Fact finding game
Each student writes on a piece of paper a fact about themselves. All the paper goes in a box and then each student takes one. The task is to find the student who wrote down the fact. Introduce them to the group.

Fizz Buzz
The group of students sits in a circle. The idea is to count from one onwards but each time there is a multiple of 3, the word 'Fizz' is said instead e.g. 1, 2, Fizz, 4, 5, Fizz etc. Then play it again but this time in addition to Fizz the word Buzz is said every time there is a multiple of 5 e.g. 1, 2, Fizz, 4, Buzz etc. (add if the number is a multiple of 3 and 5 then shout 'Fizz-Buzz').

A-B-C
Each student has to follow the previous one in thinking of a word beginning with a letter of the alphabet e.g. a – apple, b – banana, c – cherry etc. till the letter z.
This can be used to review (or introduce) any topic.

Mingle, mingle, mingle
All students walk around the room (chanting "mingle, mingle, mingle"). If you clap two times, students have to make groups of two. If you clap three times, students have to make groups of three. The students, whose assembled group has an incorrect number, are out of the game.

Name game with the ball
The students stand in a circle. One of them says "My name is …… and I throw the ball to ……"
The group continues until everyone has thrown the ball and all names have been called.
Extra: Time it and then ask the students how they can make it faster!

Name game with the first letter of your name
Each student gets a card with their name on it. They have five minutes to write a word to describe themselves under their name (the word they chose should have the same first letter as their name) e.g. My name is Birhanu and I am Beautiful.
Standing in a circle everyone reads out his/her name with the word.

One two three
In pairs the students count to three alternatively.
Then they change 1 to a sound with movement and try that.
Then they change 2 to a different sound and movement and practice that.
Finally they end up with three different sounds and movements, e.g. eek ah oh

Simon says
All student stand in a circle or stand wherever they in a position that allows them to see you.
Give instructions for the game: "Follow my instruction not my action" i.e. do what I tell you, not what do. That means that your instruction might be different from what you actually do. The other rule is that the followers act as per the instruction only when Simon says, i.e. when "Simon says" precedes the instruction.
You say: "Simon does this" and you show the movement – All students have to copy it.
If you say: "Do that" and you show the movement – The students must not copy the movement.
If a student copies the movement, he/she is out of the game.

Find your group
A fun activity to help arrange groups, give each student a card and tell them to find their group members. Each category below has five words (domestic animals, plants, drinks, vegetables, wild animals, stationery, parts of a room, furniture, kitchen equipment, water, buildings, family). These can be added too, or reduced (to match the total number of students and number of group members required).

cat	onion	floor	drink
sheep	tomato	window	tap
horse	cabbage	door	water
dog	potato	room	shower
cow	carrot	roof	boil
flower	hyena	table	shop
grass	tiger	chair	house
root	lion	desk	hotel
plant	elephant	bed	post office
tree	giraffe	shelf	school
tea	paper	spoon	mother
coffee	book	pot	brother
juice	pen	knife	father
milk	pencil	pan	grandfather
drink	chalk	glass	sister

Is he/she in your group?
Let one student stand with his/her face to the wall and point at a student in the class and ask "Is he/she in your group?" The student with their face to the wall then says yes or no. Go on until he has said yes to enough group members and then let someone else choose his own group.

Your group number is…
Give the students numbers, as many as you want groups. Then let all the students with the same number get into one group.

Are you telling the truth?
Ask the students to write three things about themselves on a piece of paper. Two should be true and one should not. Now everybody starts walking around the room and when they meet somebody, they will read out their three statements about themselves. The other person guesses which of the statements is not true by asking the person relevant questions.

Who likes / who has ...?
All students sit in a circle. Choose someone to stand in the middle and take their chair away. The student in the middle makes a statement such as 'Change places if you like Drama'. The students whose answer is yes must swap seats among themselves. The student in the middle is trying to find a seat too! There is always someone left without a seat. This person then makes another statement like 'Change places if you like dorowot' and the game continues.
Note: It is important to discourage pushing in this game, and use some statements that deal with facts (Change places if you have long hair, or if you wear blue colour, etc.) to engage reluctant students!

Walking warmer
As individuals: Ask each student to walk about as if they are... exhausted, carrying a heavy suitcase, bitterly cold, hiding from someone, a dominator, a silent listener, carrying out continuous assessment, etc.
In pairs: Ask students to nod and smile at each other; greet each other as if they have not seen each other for a long time, as if they do not like each other, as if the other person is extremely important or elderly.

7-UP
Students form a circle, and begin to count (around the circle: 1, 2, 3, 4). When they count they must put their hand on their chest – either to the right or left – this will determine who is the next person to count (and hence the direction around the circle). The counting continues in this way, change direction as determined by the location of the individual caller's hand. If the number is '7' (or a multiple of 7) the student must say '7-UP' and put their hand on their head (there is no change in direction).
If a student makes a mistake (perhaps in not acknowledging the change of direction) they are out.

Game 15
By using numbers 1 to 9 the students shall fill up the chart so that both horizontal & vertical rows make 15. Students can use each number only once.

			=15
			=15
			=15
=15	=15	=15	

Memory
Inform students that this is a memory game – they must NOT write until instructed. Place 15 objects (e.g. pen, candle, box of matches, key, coin, candy, battery, spoon, string, watch, chalk, comb, pencil, paper) one by one on the table, calling out the name of the object. Once all objects are on the table give the students a few minutes to look at them. Then cover the objects with a large piece of paper (or cloth). Ask students to record as many objects as they can remember.
When they are done, let them to exchange papers with their partner and then uncover the objects to allow the work to be assessed – give a prize to the person who remembered the most!

Famous people
Every student has a name of a famous person attached to their back. They must not see who this is. They must try to find out who it is by asking other students questions which can be only have yes or no answers. For example: "Am I still alive", "Am I an athlete?" etc. Students must be reminded to only answer yes or no even if they are asked an open question.

Camping trip
All students sit in a circle. Tell the students that you want to go on a trip. You would like the others to come on the trip but only if they fulfil certain criteria. They will not be told what the criteria are.

Tell them: "I'm going on a camping trip and I'm going to bring... (at this point you can say for example "a tent"). The next person in line also has to say "I'm going on a camping trip and I'm going to bring..." and then mention an item they would like to bring. You will tell them YES only if the student says something beginning with the letter T. As this game goes round the class the students must try to figure out what the criteria is.

Three things in common
Each student pairs up with another student who he/she doesn't know. They must find three things that they have in common. Then each pair of students presents their findings to the rest of the group.

Toss the ball
Get in a circle. Toss the ball around and say the name of the person you toss it to.

Name memory
All students stand or sit in a circle. The first student says his/her name; second student says his/her name and also says the name of the first student again, and so on, all the way around the circle. The last student has to repeat everyone's name.
As a variation, have each student say his name AND what plant he would be, if he could be a plant. This way there is more to remember than simply people's names, which makes it more interesting. OR, have everyone say an adjective plus her name, but the adjective must begin with the same letter.

ZIP/ZAP/ZOP
Get in a circle. Someone begins by pointing to another student in the circle and saying "ZIP!" That student then points to yet another student and says "ZAP!" That student points to another student and says "ZOP!" This continues, but the words must be said in order: ZIP, ZAP, ZOP. If someone makes a mistake and says a word out of order, that student is out of the game. Eventually, the circle dwindles to just a few students, then to only 2 students, who are staring at each other, yelling ZIP!, ZAP!,ZOP! until one of them makes a mistake.

Mass stand up
Have the students sit in a circle, backs to the middle. Now, have everyone link elbows with the student sitting next to them. Then, try to stand up as a group. A lot tougher than it sounds!

Human knot
Have the students stand in a tight circle, shoulder-to-shoulder, and place their hands in the centre. Now, have them grab a couple of hands, but make sure no one grabs a pair of hands belonging to the same student, or grabs either of the hands of the student standing directly next to them. Then, unravel the knot you've just created without having anyone break their grip.

Intro to the left
Group of students sit in a circle. Each student has to introduce the student on the left. Take five minutes (total) to talk to both the student on your left and the student on your right. One by one, each student introduces the student on their left.

Fun song
Extra maya Himalaya,
Tiing, tiang, tiong
Tiing, tiang, tiong
Extra maya Himalaya
Tiing, tiang, tiong

Togy, Peggy, Togy, Peggy,
Tiing, tiang, tiong
Tiing, tiang, tiong.

These words don't have any meaning. The text is repeated, the first round starts very slowly and the following rounds are said more quickly up to a maximum.

ANNEX

B

Name of the schools:

Name of the Teacher:

Subject:

Grade:

Main Topic:

Sub Topic:

Student learning objectives:

Time	Phases of learning	Teacher's activity	Students' activity	Teaching aids	Assessment techniques	Remark
	Evocation					
	Realization of meaning					
	Reflection					

Date: Teacher's signature: Dept head's signature: V/principal's signature:

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