

Addis Ababa Education Bureau

Good (ASPI) Lessons

Presenter Desta Mersha

Session plan

- *Rationale*
- *objective*
- *active learning*
- *good lesson*

Rationale of the session

- Teachers have already been trained on different contents of the gaps which were identified by the base line survey.
- We have done more than 50 observations on Mathematics and science lessons for the last 7 and half months, to check whether there is any improvement on these gaps or not.
- During our observations, we have tried to evaluate the performance of teachers in a given period.

- From our observation and lesson evaluation, we have concluded that most teachers still have gaps in the preparation as well as delivery of good lesson which is the main component of the teaching & learning process.
- Therefore, in order to strengthen the implementation thereby to increase the effectiveness of smasee program, we need to give training on this session.

Objectives of the session

By the end of the session, the participants will be able to:

- ✓ Define active learning.
- ✓ Identify the difference b/n active and passive learning environment.
- ✓ Explain why we promote active learning.
- ✓ describe the concept of Good Lessons (ASPI Lessons)
- ✓ state the common characteristics of a Good Lesson.

Brainstorming (20')

Please write down in your own words:

1) Whatever you know about “active learning”

2) Why do we promote “Active learning”?

What is “Active learning”?

- ***Active learning*** refers to techniques where students do more than simply listen to a lecture.
- Students are doing something including discovering, processing, and applying information .(by Kathleen McKinney, Illinois State University).

What is “Active learning”?

- ***Active learning*** is generally defined as any instructional method that engages students in the learning process. In short, active learning requires students to do meaningful learning activities and think about what they are doing (by Michael Prince, Bucknell University).

What is “Active learning”?

- When learning is active, **students do most of the work.**
- They use their brains: studying ideas, solving problems, and applying what they learn.
- ***Active learning*** is **fast-paced, fun, supportive, and personally engaging** (by Silberman, M).

Why do we promote "Active learning"?

- It is known that knowledge must be constructed by the learner
- It cannot be supplied by the teacher. This can be supported by the proverb :-

A well must produce its own water.

- If we fill a well with water and fetch out the water from the well, it doesn't add any value.
- Equally, if we simply tell some knowledge to students and extract the knowledge we teach in a form of an exam, they will remain out there without having innovative and creative qualities.

Why “Active learning”?(cont...)

- Imagine what possibly you can do something to get to that level from our recent situation.
- Come back to where you are now and open your eyes.
- See the following diagram and rethink on the very traditional practices of teaching and learning.



Why “Active learning”(cont...)

AFTER TWO WEEKS WE
TEND
TO REMEMBER ...

10% of what we read

READING

20% of what we hear

HEARING WORDS

30% of what we see

LOOKING AT PICTURES

PASSIVE

WATCHING A MOVIE/VIDEOTAPE

LOOKING AT AN EXHIBIT

50% of what we see and
hear

WATCHING A DEMONSTRATION

SEEING IT DONE ON LOCATION

70% of what we
say

PARTICIPATING IN A DISCUSSION

GIVING A TALK

ACTIVE

90% of
what we
say and
do

DOING A DRAMATIC PRESENTATION

SIMULATING THE REAL EXPERIENCE

DOING THE REAL THING

Adapted from: Edgar Dale *Audio-Visual Methods in Teaching*, Holt, Rinehart and Winston.

Brainstorming(20')

- What is the differences between passive and active learning environment in Mathematics and Science lessons?

differences between passive and active learning environment

Aspect	Passive learning	Active learning
Source of knowledge		
Students' beliefs		
Teacher's role		
Interaction among the students		
Experiments		
Lab work		
Focus of the lesson		
Mode of learning		

Differences between passive and active learning environment

Aspect	Passive learning	Active learning
Source of knowledge	Teachers/ textbooks are the authorities-sources of all knowledge.	Real observations of the physical world are the authorities
Students' beliefs	Students' beliefs are rarely overtly challenged.	Student's beliefs are challenged.
Teacher's role	Teacher's role is as a lecturer.	Teacher's role is as a guide / facilitator in the learning process.
Interaction among the students	Collaboration with peers often discouraged.	Collaboration with peers is encouraged.

Cont...

Aspect	Passive learning	Active learning
Experiments	Lessons often present the “fact” with little reference to experiment.	Results from real experiments are observed in understandable ways.
Lab work	Lab work, if any, is used to confirm theories “learned” in lecture.	Lab work is used to learn basic concepts.
Focus of the lesson	Focuses on what we are teaching.	Focuses more on what our students are learning.
Mode of learning	- Too focused on facts and rote memorization - The teacher used to get in front of students and do all the activities.	- Students work on problems together in groups talk, argue and teach each other. - Mentally engage students in what the teacher is teaching. ¹⁶

Brain storming questions (20')

What is a “Good Lesson” in Mathematics and Science?

i. Definition of a “Good Lesson” in Mathematics and Science

“**Good lesson**” is a lesson that actively engage students mentally (minds-on), physically (hands-on) and attitudinally (hearts-on) in learning **for the attainment of the lesson objectives.**

(cont...)

- Occasionally lessons without physical activities (e.g. experiments) can be “Good lesson” even in science lessons, for example, which can stimulate students’ thinking and creativity.
- Good lessons shall encourage “**active learning**” of each student. The more each student is actively engaged in learning, the more learning outcomes can be expected. We call such good lessons **ASPI lessons**.

What ASPI stands for?

Our good lessons are presented by the term “**ASPI lessons.**”

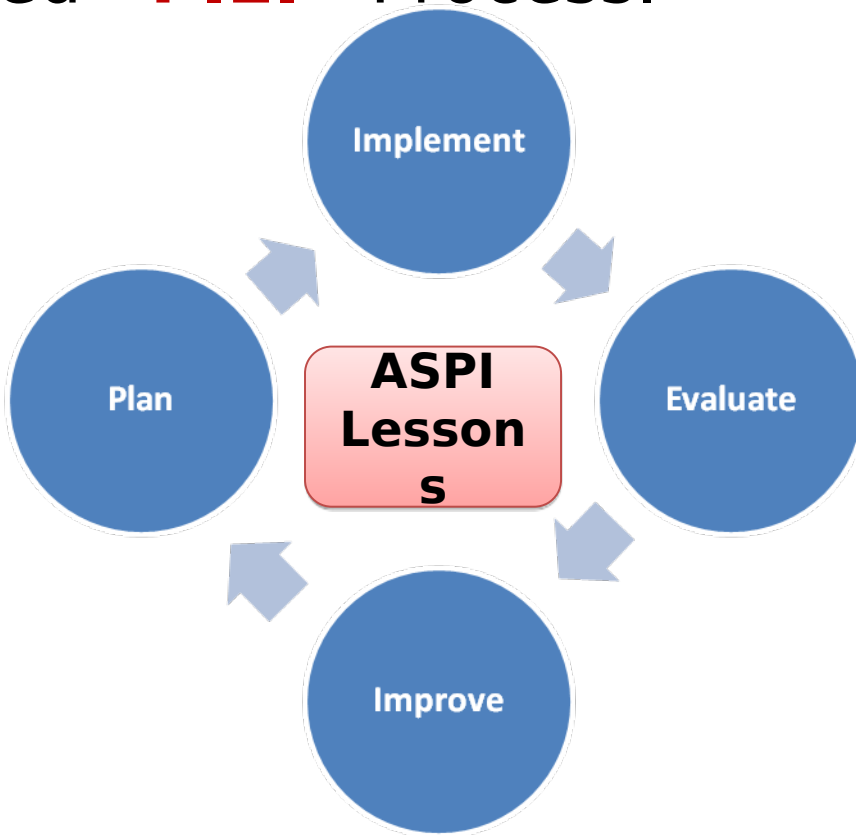
- **A**: *Activity-based*
- **S**: *Student-centered*
- **P**: *Practical activities*

(This includes experiment, laboratory activities, field visit, etc.)

- **I**: *Improvisation and utilization of T&L materials*

PIEI

Any single “**ASPI lesson**” is realized through “Plan – Implement – Evaluate – Improve”, so-called “**PIEI**” Process.



PIEI is the process we shall follow **to actualize ASPI lessons** and as a result **students' better learning outcomes** could be realized.

Brainstorming activity

- Why we use teaching and learning materials?
- What is improvisation?

Why we use teaching and learning materials?

Teaching and learning (T&L) materials would:

- help students to **consciously direct their own learning** resulting in constructing their own knowledge;
- assist students **retain a reasonably high percentage of the learnt concepts and principles**;
- promote **active involvement of the students** in the process;

Why we use teaching and learning materials?/cont.../

- foster the ability to perform quickly and skillfully in students
- encourage the teacher to apply learner-centered approaches
- allow **curiosity** and increase students' **interest** in learning
- facilitate different learning styles (visual, auditory and tactile)
- reduce frustration and/or boredom.

What is improvisation?/cont.../

- ***Improvisation*** Is the process of producing or preparing T and L materials from readily available and locally available used up materials by teachers
- Students can also take part in the process of improvisation.
- Since conventional laboratory apparatuses are expensive to buy the production of improvised teaching learning materials is very essential.

What does it mean by improvisation?/cont.../

The advantages of improvisation of T&L materials are:

- It gives an alternative to T&L materials which are not available or are costly;
- It does not only involve low or no cost but also helps an environmental protection;
- The improvised materials are usually simple, easy to construct and easy to handle;
- It helps to make the teaching, learner-centered;
- It helps the learner to develop scientific spirit.

Characteristics of Good (ASPI)

Lessons versus Teachers' Role

	Characteristics of Good Lessons	Teachers' Role
1	A good lesson directs students to critical thinking and reasoning .	Teachers guide students to critically think and reason out during learning activities.
2	A good lesson accommodates incorrect answers and uses them in directing towards correct answers.	Teachers use both correct and wrong answers from students effectively: •Teachers may use the correct answers as conclusion / summary; •Teachers find out the reasons why students gave wrong answers to clear misconceptions (misunderstanding).

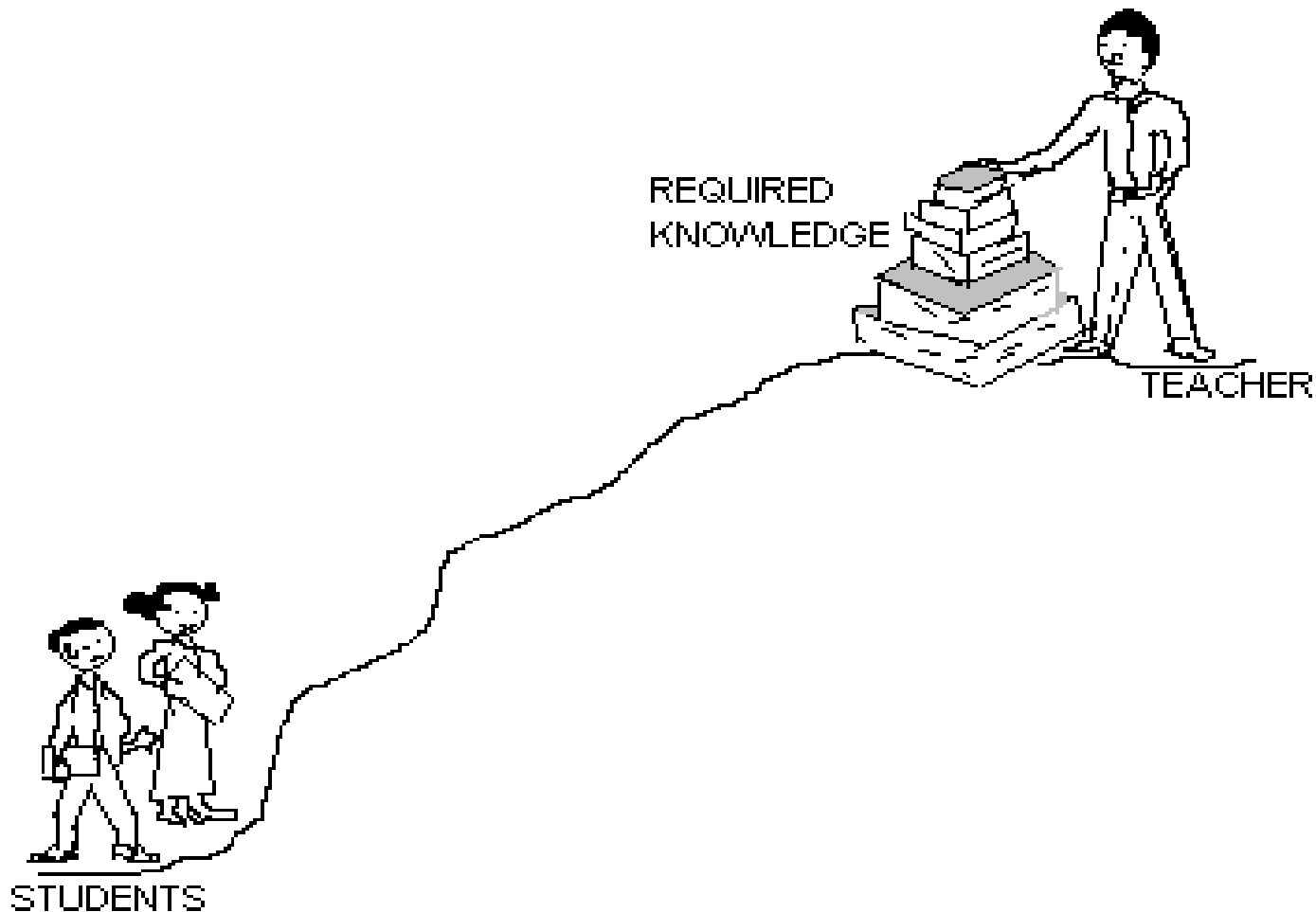
	Characteristics of Good Lessons	Teachers' Role
3	A good lesson gives opportunity to different ideas until consensus is reached / conclusion is made.	Teachers listen to as many responses as possible from a single question / task and harmonize them in order to: •develop students' understanding of ideas; •reach consensuses; and •make a better conclusion.
4	A good lesson gives a second chance to answer the same question or similar questions or different questions (simpler ones), if students got wrong answers earlier.	Teachers give a second chance to answer the same question or similar questions or different questions (simpler ones), if they got wrong answers earlier.

	Characteristics of Good Lessons	Teachers' Role
5	A good lesson allows for continuous follow-up of students' learning and support.	- Teachers closely follow up and give support to all students (fast-, medium-, and slow-learners); - Teachers identify good performance in the learners work and share it with the rest of the class.
6	A good lesson enables students to understand and construct knowledge from their prior experience and	- Teachers consider students' prior knowledge and experience as well as their background in planning; - Teachers use examples / proper T&L activities to connect the students' prior

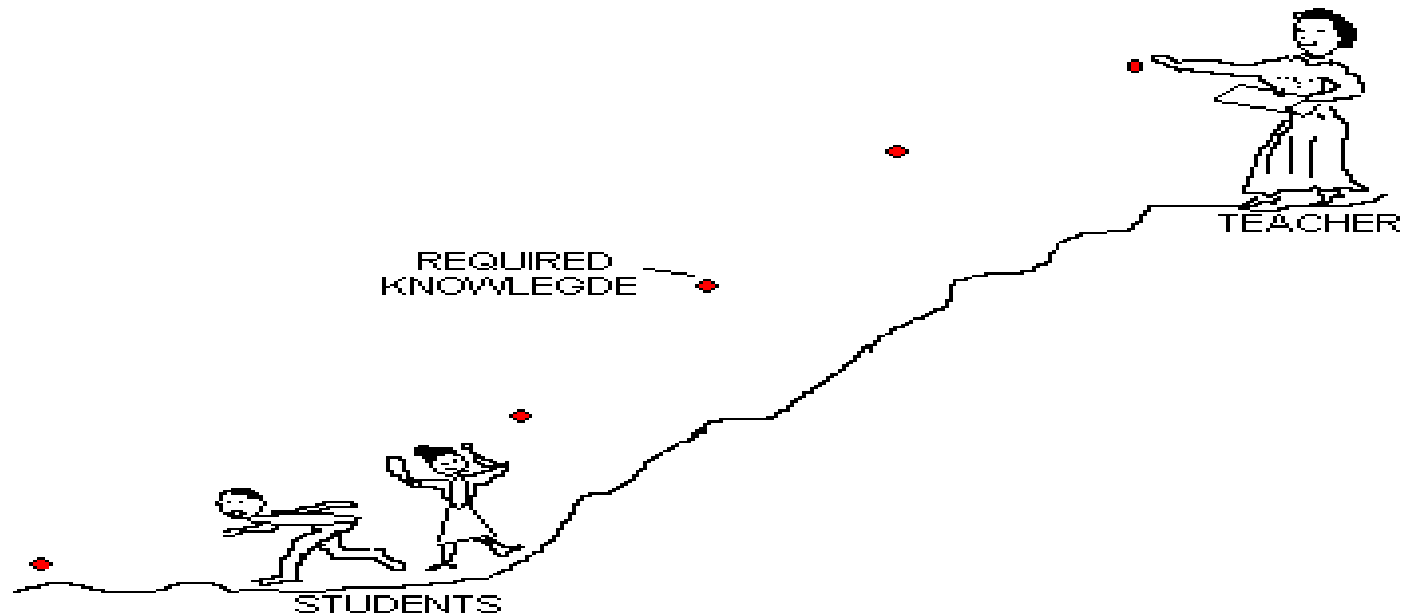
	Characteristics of Good Lessons	Teachers' Role
7	A good lesson encourages students to develop the ability to reasonably predict / hypothesize the outcomes / results of activity / experiment beforehand.	Teachers allow the students to predict on the outcomes / results of activity/experiment before carrying out the experiment and encourage them to explain their predictions/hypothesis.
8	A good lesson is implemented based on a proper lesson plan .	In planning, teachers understand: •students' thinking; •their status of learning; •set objectives; and •core learning points. Accordingly, teachers prepare proper T&L activities, T&L materials and learning assessment

	Characteristics of Good Lessons	Teachers' Role
9	A good lesson engages all students mentally (minds-on), physically (hands-on) and attitudinally (hearts-on).	Teachers create situations that could help develop the three domains.
10	A good lesson is conducted by using appropriate T&L materials.	Teachers select, prepare and use T&L materials that: •meet the intended lesson objectives / intended outcomes of the activities; •arouse interests of students; and •are easy for students to handle.
11	A good lesson includes assessment points at each stage of the	Teachers use appropriate assessment techniques, e.g. observation, questioning, short-

Comparison b/n traditional and modern mode of teaching

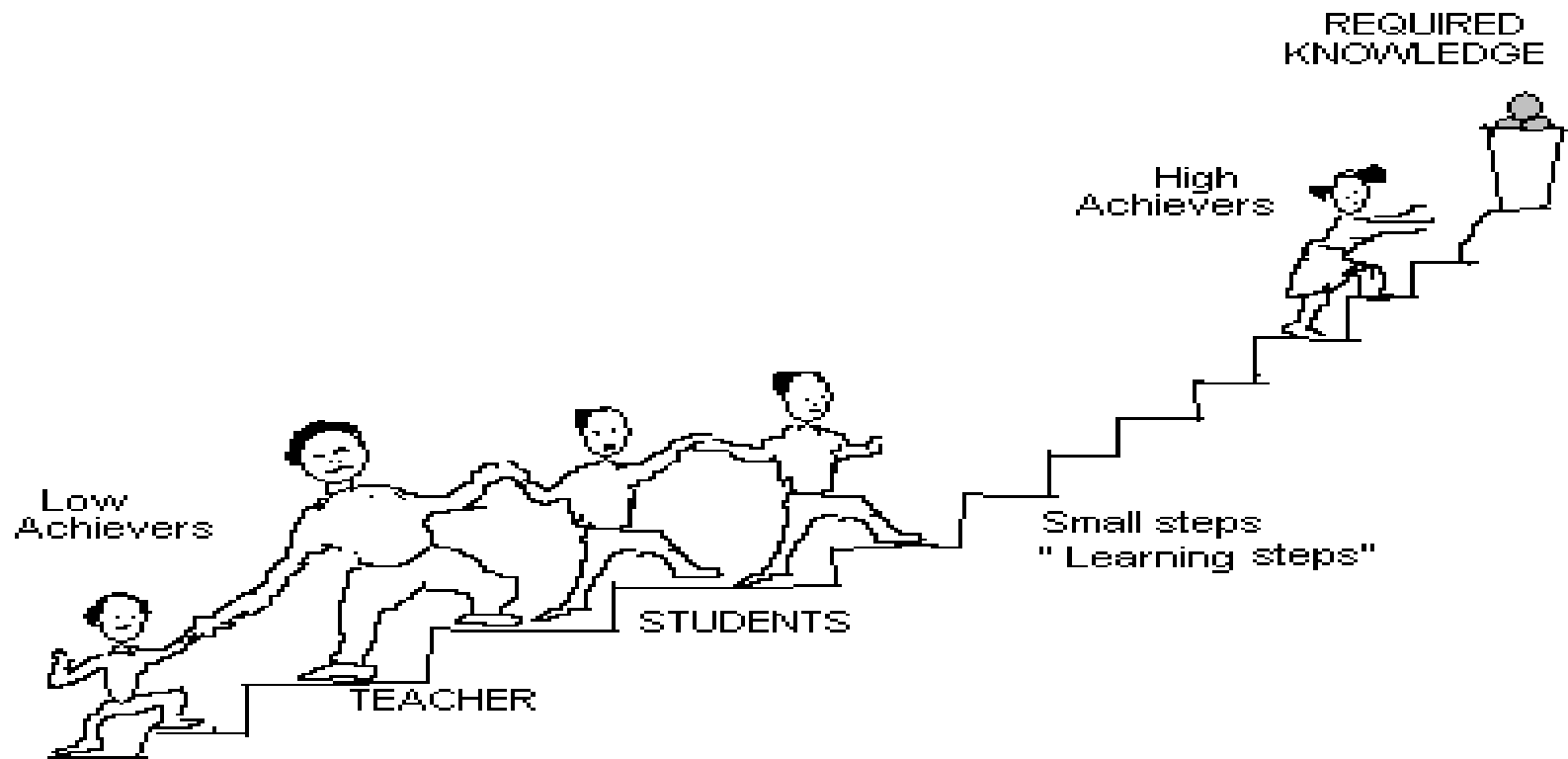


Traditional mode of teaching vs. modern teaching method



Traditional mode of teaching - teacher gives ("throws") of the required knowledge to students.

Traditional mode of teaching vs. modern teaching method



Our ideal lesson - teacher prepares small steps and climbs together with the students.

Brain storming Question

Select any topic from your field of study and prepare an activity/activities/ that can let students think critically.

Thank you!!