

UNIT 1

OBJECTIVES OF AGRICULTURAL EDUCATION

What are Learning Objectives/ Outcomes?

They are:

- Statements that describe significant and essential **learning** that **learners** have achieved, and can reliably demonstrate at the end of a **course** or program. In other words, **learning outcomes** identify what the learner will know and be able to do by the end of a **course** or program.
- Statements of what **participants** will learn during their mobility experience as you described it in the activities. The statements are focused on **learning** (What will they learn in that specific time span of the mobility?). These statements should include a **verb phrase** and an **impact ("in order to") phrase** -- what participants will do/be able to do and how they will apply that skill or knowledge in their daily practice.

Learning objectives should be brief, clear, specific statements of what learners will be able to do at the end of a lesson as a result of the activities, teaching and learning that has taken place. They are sometimes called learning outcomes. The Learning objective or objectives that you use can be based on three areas of learning: knowledge, skills and attitudes. Learning objectives define learning outcomes and focus teaching. They help to clarify, organize and prioritize learning. They help you and your students evaluate progress and encourage them to take responsibility for their learning.

What is the difference between an aim and a learning objective?

A lesson aim is a very general statement of what the overall goal is in a lesson – the intention behind the teaching. The lesson objective/objectives are the measurable stages that a learner will go through and need to achieve in order to achieve the overall goal. Aims are like strategy, objective are like tactics

Characteristics of Good Learning Outcomes

Good learning outcomes focus on the application and integration of the knowledge and skills acquired in a particular unit of instruction (e.g. activity, course program, etc.), and emerge from a process of reflection on the essential contents of a course. More specifically, good learning outcomes:

Are very **specific**, and use **active language** – and verbs in particular – that make expectations clear. This informs students of the standards by which they will be assessed, and ensures that student and instructor goals in the course are aligned. Where possible, avoid terms like understand, demonstrate, or discuss that can be interpreted in many ways.

- Should be **flexible**: while individual outcomes should be specific, instructors should feel comfortable adding, removing, or adjusting learning outcomes over the length of a course if initial outcomes prove to be inadequate.
- Are **focused on the learner**: rather than explaining what the instructor will do in the course, good learning outcomes describe knowledge or skills that the student will employ, and help the learner understand why that knowledge and those skills are useful and valuable to their personal, professional, and academic future.
- Are **realistic**, not aspirational: all passing students should be able to demonstrate the knowledge or skill described by the learning outcome at the conclusion of the course. In this way, learning outcomes establish standards for the course.
- Focus on the **application** and **integration** of acquired knowledge and skills: good learning outcomes reflect and indicate the ways in which the described knowledge and skills may be used by the learner now and in the future.
- Indicate useful **modes of assessment** and the specific elements that will be assessed: good learning outcomes prepare students for assessment and help them feel engaged in and empowered by the assessment and evaluation process.
- Offer a **timeline** for completion of the desired learning.

Each assignment, activity, or course might usefully employ between approximately five and ten learning outcomes; this number allows the learning outcomes to cover a variety of knowledge and skills while retaining a focus on essential elements of the course.

When writing your outcomes, keep in mind...

Learning outcomes should be **SMART (TT)**:

SPEAK TO THE LEARNER: learning outcomes should address what the learner will know or be able to do at the completion of the course

MEASURABLE: learning outcomes must indicate how learning will be assessed

APPLICABLE: learning outcomes should emphasize ways in which the learner is likely to use the knowledge or skills gained

REALISTIC: all learners who complete the activity or course satisfactorily should be able to demonstrate the knowledge or skills addressed in the outcome

TIME-BOUND: the learning outcome should set a deadline by which the knowledge or skills should be acquired;

TRANSPARENT: should be easily understood by the learner; and

TRANSFERABLE: should address knowledge and skills that will be used by the learner in a wide variety of contexts

How do you write aims and learning objectives?

As part of your planning you need to decide what your students need to be able to DO after they have learned something that you have taught. Beginning your planning with the learning objectives will also help you ensure that your tasks and activities are appropriate and will help your students achieve their objectives.

Avoid using verbs that are difficult to measure objectively. The following verbs are difficult to assess and measure and therefore should be used with caution:

Examples of Measurable Action Words (examples)

- Explain
- Compare
- Evaluate
- Demonstrate
- Differentiate
- Identify
- Analyze
- Describe
- Design
- Formulate
- Name
- Define
- Discuss
- Assess
- List

How can I differentiate my learning objectives and make them more demanding and make sure that they are challenging?

You can make your learning objectives difficult, demanding or challenging by changing the active verb that you use

(See detailed table below) to a more complex, involve higher order thinking; or you can add specific conditions or limits.

Putting the theory into practice

The following lists and tables contain examples of active verbs which describe the sorts of things you want your students to be able to do and may help you to write useful learning objectives.

Bloom's Taxonomy of Educational Objectives (published in 1956 and revised in 2001) gives you a way to express learning outcomes in a way that reflects cognitive skills.”

Emphasis – link to Blooms Taxonomy	Relevant Action Verbs to use in your lesson objectives:
<p>Knowledge ‘To find or remember information memorizing information’</p>	<p>Comprehend, appreciate, select, indicate, illustrate, represent, formulate, explain, classify, translate, extrapolate, convert, interpret, abstract, transform, select, indicate, relate, experiment, simple comparisons, demonstrate, explain, reword, discuss, cite, conclude, describe, discuss, estimate, generalise, give examples, locate, make sense of, paraphrase, predict, report, restate, review, summarise, trace</p>
<p>Comprehension ‘To understand the information and restate in your own words, paraphrasing, summarizing, translating’</p>	<p>Comprehend, appreciate, select, indicate, illustrate, represent, formulate, explain, classify, translate, extrapolate, convert, interpret, abstract, transform, select, indicate, relate, experiment, simple comparisons, demonstrate, explain, reword, discuss, cite, conclude, describe, discuss, estimate, generalise, give examples, locate, make sense of, paraphrase, predict, report, restate, review, summarise, trace</p>

<p>Apply/Application</p> <p>‘To use information to solve problems, transfer abstract or theoretical ideas to actual situations, identifying connections and relationships and how they apply ’</p>	<p>Assess, change, chart, choose, demonstrate, determine, develop, establish, produce, relate, report, select, show, use, try, diagram, perform, make a chart, put into action, build, report, employ, relate, draw, construct, adapt, apply, sequence, carry out, solve, prepare, operate, generalize, plan, repair, explain, predict, instruct, compute, use, implement, solve,</p>
<p>Analysis</p> <p>‘To take information apart, identifying components, determining arrangement, logic and semantics</p>	<p>Analyze, study, combine, separate, categorise, detect, examine, inspect, discriminate, take apart, generalise, scrutinize, estimate, compare, observe, detect, classify, discover, explore, distinguish, catalogue, investigate, breakdown, order, determine, differentiate, dissect, contrast, examine, interpret, identify, dissect, characterise, correlate, diagram, illustrate, infer, limit, outline, point out, prioritise, relate, separate, subdivide.</p>
<p>Synthesis</p> <p>‘To create new ideas or things, combining information to form a unique product, requiring of creativity and originality’</p>	<p>Write, plan, integrate, formulate, propose, specify, produce, organize, theorize, design, build, systematize, combine, summarize, restate, argue, hypothesise, predict, create, invent, produce, modify, extend, design, formulate, develop, build, compile, discuss, derive, relate, generalize, conclude, combine, précis, discuss, integrate, conclude, adapt, categorise, compose, construct, create, design, generate, incorporate, integrate, modify, organise, perform, propose, reinforce, reorganise, rewrite, structure</p>
<p>Evaluation</p> <p>‘To make judgments about knowledge, to make decisions and supporting views, requires understanding of values. ’</p>	<p>Evaluate, interpret, decide, solve, rate, appraise, verify, assess, test, judge, rank, measure, appraise, select, check, evaluate, determine, support, defend, weigh, judge, justify, attach, criticise, weigh up, argue, choose, compare and contrast, conclude, critique, defend, predict, prioritize, prove, reframe,</p>

Writing Learning Objectives correctly – checklist:

- Does the learning objective reflect a step in achieving an overall lesson aim?
- Do your lesson activities ensure that students will achieve their objective and your overall aim?
- Is the learning objective measurable?
- Is the learning objective student-centered?
- Have you used effective, action verb that targets the desired level of performance?

UNIT 2

METHODS OF TEACHING AGRICULTURE (*FIELD AND CLASSROOM*)

An important component of the curriculum study is the pedagogy

What is pedagogy or Principles and methods of instruction (Teaching)?

Pedagogy actually refers to the method or approach to teaching or how knowledge and skills are imparted to learners. It is determined based on an educator's beliefs about how learning should, and does, take place. Pedagogy requires meaningful classroom interactions and respect between educators and learners. The goal is to help students build on prior learning and develop skills and attitudes and for educators to devise and present curriculum in a way that is relevant to students, aligning with their needs and cultures.

Difference between Approach and Methodology

- The overall style that guides you when trying to overcome a problem is called the approach of solving the problem
- Approach becomes methodology when it has been time tested and proved its efficacy again and again
- Methodology is specific and has a step by step procedure to solve a problem. On the other hand, approach is generalized and tells one how to go about a problem
- Approach is casual while methodology is organized, scientific, and well researched

Why is pedagogy important?

Having a well thought-out pedagogy can improve the quality of your teaching and the way students learn, helping them gain a deeper grasp of fundamental material. Being mindful of the way you teach can help you better understand how to help students achieve deeper learning. And it can, in turn, impact student perception, resulting in cooperative learning environments. The proper approach helps students move beyond simple forms of thinking like basic memorization and comprehension, to complex learning processes like analysis, evaluation, and creation. Students can leverage their preferred learning styles with a teaching process that supports them, and the way they like to learn.

Shaped by the teacher's own experiences, pedagogy must take into consideration the context in which learning takes place, and with whom. It isn't about the materials used, but the process, and the strategy adopted to lead to the achievement of meaningful cognitive learning.

In a literal sense, the word pedagogy stems from the Greek word that effectively means "the art of teaching children."

The key question is what approaches will be important to deliver the agriculture component of JHS syllabus? To answer this question, it is important to look at the Particular learning behaviours (dimensions profile) expected of the JHS syllabus. Two key areas could be identified with this syllabus are knowledge and understanding, and the application of knowledge.

Knowledge

- The sum of what is known: the body of truth, information, and principles acquired by humankind/learners
- Knowledge is simply the ability to remember or recall material already learned and constitutes the lowest level of learning. It has been defined as the ability to: Remember, recall, identify, define, describe, list, name, match, and **state principles, facts and concepts**

Understanding

- It is a mental, sometimes emotional process of comprehension, assimilation of knowledge, which is subjective by its nature
- Understanding is generally the ability to grasp the meaning of some material that may be verbal, pictorial, or symbolic.
- It is also the ability to: Explain, summarise, translate, rewrite, paraphrase, give examples, generalize, estimate or predict consequences based upon a trend.

Application of Knowledge

- Application of Knowledge is ability to use knowledge or apply knowledge, as implied in this syllabus, and it has a number of learning/behaviour levels. These levels include analysis, synthesis, and evaluation.
- Application is the ability to: Apply rules, methods, principles, theories, etc. to concrete situations that are new and unfamiliar. It also involves the ability to produce, solve, operate, plan, demonstrate, discover etc.
- ***Knowledge application*** is said to have taken place when available knowledge is used to make decisions and perform tasks through direction and routines.

Direction refers to the process through which the individual possessing the knowledge guides the action of another individual without transferring to that individual the knowledge underlying the direction. It is more that an individual who possesses knowledge advises another. For example, direction is the process used when a production worker calls an expert to ask her how to solve a particular problem with a machine and then proceeds to solve the problem based on the instructions given by the expert.

Analysis

- Analysis is the ability to: Break down material into its component parts; to differentiate, compare, distinguish, outline, separate, identify significant points etc., recognize unstated assumptions and logical fallacies recognize inferences from facts etc.
- It is the process of breaking a complex topic or substance into smaller parts in order to gain a better understanding of it or careful study of something to learn about its parts, what they do, and how they are related to each other.

Synthesis

- Synthesis is the ability to: Put parts together to form a new whole. It involves the ability to combine, compile, compose, devise, plan, revise, design, organize, create, generate etc.
- The act of combining different ideas or things to make a whole that is new and different from the items considered separately.

Evaluation

- Evaluation is the ability to: Appraise, compare features of different things and make comments or judgement, contrast, criticize, justify, support, discuss, conclude, make recommendations etc. Evaluation refers to the ability to judge the worth or value of some material based on some criteria.
- It is a process that critically examines a program. It involves collecting and analyzing information about a program's activities, characteristics, and outcomes. Its purpose is to make judgments about a program, to improve its effectiveness, and/or to inform programming decisions (Patton, 1987).

There are so many different methodologies and strategies that go into becoming an effective instructor. Teachers should take time to know their students because they care, not because they have to. When instructors know the stories behind the students, they are able to design lessons that are more fun, more meaningful, and more effective because they were designed with the students' best interests in mind.

For the achievement of the specific objectives of the agricultural components of the syllabus, it is important to study those teaching and learning approaches that could be used to achieve specific objective. Let's consider the following:

Question and Answer Method:

Tutor encourages the use of questioning to solicit responses from learners. Question and answer teaching gives the student the opportunity to reflect his inquiries and needs for further information. At the same time, by soliciting answers to key questions the teacher gains some insight into the class' progress.

Advantages of Question-Answer Method

- (i) It can be used in all teaching situations.
- (ii) It helps in developing the power of expression of the students.
- (iii) It is helpful to ascertain the personal difficulties of the students.
- (iv) It provides a check on preparation of assignments.
- (v) It can be used to reflect student's background and attitude.
- (vi) It is quite handy to the teacher when no other suitable teaching method is available.

Disadvantages

- (i) It requires a lot of skill on the part of teacher to make a proper use of this method.
- (ii) It may sometime mar the atmosphere of the class.
- (iii) This method generally is quite embracing for timid students.
- (iv) It is time consuming

Lecture/Lecturette Method:

Tutor uses the Lecture / Lecturette methods to present information, facts and principles about a topic to students. This teaching method is one way channel of communication of information. Students' involvement in this teaching method is just to listen and sometimes write down some notes if necessary during the **lecture**, combine the information and organized it.

Advantages of Lecture Method of Teaching

1. In this teaching method a large amount of topics can be covered in a single class period.
2. Using of this method exclude the using of any equipment or Lab.
3. Learning material is not required.
4. Student listening skills developed.
5. Logical arrangement of the material in order to present it orally
6. Help to learn languages

Disadvantages of Lecture Method of Teaching

1. Teacher delivers the same lecture to both students without recognizing the individual differences.
2. Students are usually not encouraged to actively participate in the lesson. They just listen to the teacher.
3. Language using in the lecture is often above the standard of the students. They are not able get full advantage of the lecture.
4. Lecture are often forgotten by the students soon after while learning is retained if activities are experienced.
5. Attention level is not the same while student listening to the lecture.

Demonstration Method:

This involves showing, telling and doing something that can be observed by group of learners. There are two aspects results and method demonstration.

A demonstration method of teaching can be formulated just like this:

Demonstration = words (audio) + performance (visual information)

Advantages and disadvantages of demonstration method of teaching

Pros

- This strategy improves the understanding of complex skills and principles.
- Students pay attention and follow along with the learning process.
- Knowledge becomes permanent because this method requires different human senses.
- Students are motivated to study and gain necessary skills.
- The psychomotor objective is easily achieved through this method.
- No time is wasted because students see the process live and understand how to apply theoretical knowledge practically.

Cons

- Students are not allowed to ask questions or start discussions during the demonstration.
- Only technical and training skills can be taught this way.
- Basic Schools and colleges often lack the equipment necessary for making the 'demonstrative' models.
- This method requires a significant effort from the teacher.
- The method is limited to particular teaching situations only.

Work-based learning method is used to help students apply real-life work experiences with academic and technical skills and develop their own strategies to teach agriculture effectively.

Work-based learning strategies include the following:

- **Apprenticeship or internship or mentorship:** An apprenticeship involves the student working for an employer where he or she is taught and supervised by an experienced employee of the chosen organization. The student is periodically evaluated for progress as per the skills and knowledge acquired, and maybe granted wages accordingly. At the end of the course, the student receives a certificate of service. The student learns in a realistic environment and gets the opportunity to apply his or her knowledge in real-world scenarios.
- **Job shadowing:** Job shadowing is a short term opportunity that introduces the student to a particular job or career by pairing the student with an employee of the workplace. By following or 'shadowing' the employee, the student gets familiar with the duties and responsibilities associates with that job.
- **Business/industry field trip:** Field trips offer the students an insight in the latest technical advancements and business strategies of an enterprise. Students also gain awareness of the various career opportunities available and understand the driving forces of the community's economy.
- **Entrepreneurial experience:** This includes setting up of specific business, right from the planning, organizing and managing stage to the risk control and management aspects of a business.
- **School-based enterprise:** A school-based enterprise is a simulated or actual business run by the school. It offers students a learning experience by letting them manage the various aspects of a business
- **Service learning:** This strategy combines community service with career, where students provide volunteer service to public and non-profit agencies, civic and government offices etc.

Discussion Method:

Tutor /teacher uses the discussion method to get student-teachers/learners to discuss topical issues or themes relating to the topic under discussion. It involves exchange of ideas, facts, opinions and experiences about topics in the syllabus.

The advantages and limitation of Discussion Method

Advantages:

- Emphasis on learning instead of teaching.
- Participation by everyone in the class.
- Development of democratic way of thinking.
- Training in reflective thinking.
- Training in self-expression.
- Spirit of tolerance is inculcated.
- Learning is made interesting.

Limitations:

- Discussion method is not appropriate for all the topics.
- It can be used only to teach students who have some basic knowledge in the topic.
- Some of the students may feel shy or reluctant to take part while others may try to dominate
- Teacher may lose control over the students and they may end up in quarrelling.

Use of Educational Drama/Role playing Method:

Tutor organizes the students to use educational Drama to teach certain topics that enable learners to practise a newly learned behaviour or act out a real situation or experience new perspective.

Advantages of Applying Role-Plays are:

- ❖ Students immediately apply content in a relevant, real world context.
- ❖ Students take on a decision making that might let them diverge from the confines of their normal self-imposed limitations or boundaries.
- ❖ Students can transcend and think beyond the confines of the classroom setting.
- ❖ Students see the relevance of the content for handling real world situations.
- ❖ The instructor and students receive immediate feedback with regard to student understanding of the content.
- ❖ Students engage in higher order thinking and learn content in a deeper way.
- ❖ Instructors can create useful scenarios when setting the parameters of the role play when real scenarios or contexts might not be readily available.
- ❖ Typically students claim to remember their role in these scenarios and the ensuing discussion long after the semester ends.

Disadvantages of applying role-plays are:

- ❖ It requires expert guidance and leadership.
- ❖ Sometimes participants may feel like threatened.
- ❖ Strongly depends on students' imagination.
- ❖ Participants may be too shy.
- ❖ It becomes difficult for teachers to evaluate the student individually.
- ❖ Its a time consuming process.
- ❖ Its a failure when the group does not understand.

Use of Resource Persons:

Tutor/ teacher makes effective use of Resource Persons to teach certain agricultural topics that the tutor/teacher is not skill enough or have limited knowledge. In some cases, the resource person is used to enable the learners have access to certain equipment that tutor may not have.

Resource people are experts or authorities who contribute information and opinions to participants in a learning situation. They frequently are used to conduct educational activities, but may also be helpful to your committee at the program planning stage. Resource people may be from within or outside the organization. Base your selection on their knowledge of the topic and ability to successfully cover and communicate information to the learners

Group Work:

Tutor/ teacher puts student-teachers/ learners into groups and assign them tasks to perform, based on the topic. This is to encourage involvement and participation of all learners in the lesson,

Advantages and Disadvantages of Working in a Group:

Advantages of Working in a Group	Disadvantages of Working in a Group
More Productive	Unequal Participation
More Resources	Intrinsic Conflict
More Reliable	No Individual thinking
Learn Things	Decision making takes time
New Method	Easy to avoid work
Information Exchange	Loss of Creativity
Team Commitment	Time Consuming

Study Visits/Field trips:

- An Educational Tour or A Field Trip is a visit to a place away from their normal place of study. The purpose of this trip is to provide students an experience outside the class rooms or labs. It also provides an opportunity non experimental research and helps bring all the students to a common platform irrespective of their social, economic & cultural background.
- Field trips are a time-honored tradition in most schools. The students love them. Field trips give them a chance to get out of the classroom and experience something new.
- Tutor/teacher organizes students to go on study tour to places outside the classroom to observe real situations to reinforce what students have learnt.

Advantages of Field Trips

❖ Enhances the Curriculum

One of the biggest advantages to field trips is that they allow students to have a real-world experience. This experience should clearly illustrate and enhance information taught by the curriculum. For example, a textbook lesson on the life cycle of a salmon can be enhanced by a trip to a local salmon hatchery, where the students can clearly see the salmon in its many life stages.

❖ New Learning Environment

Field trips also allow the students to learn outside of the classroom. This is slightly different from the first advantage. While the first advantage of field trips is to supplement the curriculum, the second advantage is that field trips offer the opportunity to teach the students something new.

❖ Team Building

A final advantage of field trips is that they are a way to bring the students closer together. Many field trips combine educational content with team-building activities, such as working together to clean a stream that has been polluted. In fact, it is often a good idea to go on a field trip early in the school year to help create a bond between the students.

Disadvantage of field trips

❖ Planning

A disadvantage of field trips is that they take an incredible amount of planning. You must figure out transportation issues, chaperons (including background checks), food and alternate plans in the event of inclement weather, if the trip is to a location outdoors. You must make sure that every child has a signed

permission form, that you have emergency contact and information available on each student (including allergies) and that all fees have been paid in advance.

❖ **Liability**

Field trips bring up a wide array of legal issues, most regarding liability. If a student gets injured on a nature hike, is the school liable for medical fees? Parents may be nervous about the safety of their children.

Use of ICT:

ICT is a tool that is used for creating, storing, retrieving, sending, manipulating and receiving digital information. ICT tools include Computers, Mobile Phones, Tablets, Internet, Broadcasting Devices like Radio, Television, Wi-Fi, etc. Power Point Presentation, interactive quizzes, download of audio-visual stories/techniques, visit to blogs and websites on specific topics

Brainstorming:

Brainstorming is a popular group method of finding ideas. The process involves a group working together and stating ideas, arguing the merits of those ideas, supplementing those ideas or rejecting those ideas. Brainstorming is often seen in the workplace, when a work group meets to consider and create multiple ideas.

Tutor/ teacher uses the brainstorming method to get student-teachers identify and generate alternative solutions to issues.

Pros of Brainstorming

1. It helps you come up with great ideas.

At its basic level, brainstorming is designed to help learners gather ideas from classmates or colleagues — specifically, ideas that they otherwise wouldn't think of on their own. Opponents of brainstorming state that it promotes criticism and arguments, but proponents argue that these actually stimulate the development of new concepts and solutions.

2.It promotes creativity.

Brainstorming challenges learners to become more creative. By sitting down with classmates, learners are forced to think critically and imaginatively and come up with ideas that make them stand out and be noticed.

Cons of Brainstorming

1. It promotes fights and arguments.

As mentioned above, many believe that brainstorming only leads to criticism since learners usually judge others' ideas and statements. This, in turn, creates negative experiences for everyone involved and destroys relationships with their colleagues. Brainstorming can lead to great ideas, but this doesn't always mean that these ideas come from peaceful discussions.

2. It's not always effective.

Brainstorming is dependent on several factors, and it becomes ineffective if one or two of these factors are not present. For instance, if one or more of the brainstorming participants have poor communication skills, they'll find it hard to express their ideas or listen to what other people have to say. This can then derail the discussions and make it difficult for the group to produce good ideas.

3. It's not always the right choice for everybody.

Some learners panic at the thought of speaking in front of a group, but they can come up with excellent ideas when in one-on-one meetings. Others, meanwhile, are simply lazy, and they coast through brainstorming sessions by allowing noisier and more proactive colleagues to do the work. For these people, brainstorming isn't the right choice.

Brainstorming can be effective in some situations, although there are times when it's not the right technique to use.

Problem Solving :

The problem solving approach is a student-centered approach to teaching where the central and essential characteristic is solving problems. Students participate in the learning process by contributing problems, analyzing the factors associated with the problems, developing possible solutions to the problems, placing the solution(s) into action, and evaluating the results of the solution. Students make inquiries to find solutions to problems.

Advantages of Problem-Based Learning

1. Development of Long-Term Knowledge Retention

Students who participate in problem-based learning activities can improve their abilities to retain and recall information, according to a literature review of studies about the pedagogy "Elaboration of knowledge at the time of learning" — by sharing facts and ideas through discussion and answering questions — "enhances subsequent retrieval." This form of elaborating reinforces understanding of subject matter, making it easier to remember.

Small-group discussion can be especially beneficial — ideally, each student will get chances to participate.

But regardless of group size, problem-based learning promotes long-term knowledge retention by encouraging students to discuss — and answer questions about — new concepts as they're learning them.

2. Continuous Engagement

Providing a problem-based learning challenge can engage students by acting as a break from normal lessons and common exercises.

It's not hard to see the potential for engagement, as learners collaborate to solve real-world problems that directly affect or heavily interest them.

These activities may lose some inherent engagement if you repeat them too often, but can certainly inject excitement into class.

3. Development of Transferable Skills

Problem-based learning can help students develop skills they can transfer to real-world scenarios.

The tangible contexts and consequences presented in a problem-based learning activity “allow learning to become more profound and durable.” As you present lessons through these real-life scenarios, students should be able to apply learnings if they eventually face similar issues.

As long as the problem's context applies to out-of-class scenarios, students should be able to build skills they can use again.

4. Improvement of Teamwork and Interpersonal Skills

Successful completion of a problem-based learning challenge hinges on interaction and communication. Depending on a given student, this can involve developing listening skills and a sense of responsibility when completing one's tasks.

Disadvantages of Problem-Based Learning

1. Student Unpreparedness

Problem-based learning exercises can engage many of your learners, but others may feel disengaged as a result of not being ready to handle this type of exercise because of:

- **Immaturity** — Some students may not display enough maturity to effectively work in a group, not fulfilling expectations and distracting other students.

- **Unfamiliarity** — Some kids may struggle to grasp the concept of an open problem, since they can't rely on you for answers.
- **Lack of Prerequisite Knowledge** — although the activity should address a relevant and tangible problem, students may require new or abstract information to create an effective solution.

2. Teacher Unpreparedness

If supervising a problem-based learning activity is a new experience, **you may have to prepare to adjust some teaching habits.**

Depending on your teaching style, it may take time to prepare yourself to successfully run a problem-based learning lesson.

3. Time-Consuming Assessment

If you choose to give marks, assessing a student's performance throughout a problem-based learning exercise demands constant monitoring and note-taking.

Assignment: Tutor gives assignment to students to find the meaning of the key concepts **Homework**, or a **homework assignment**, is a set of tasks assigned to students by their teachers to be completed outside the class.

Advantages

❖ Children develop time management and study skills

Homework sets children up to manage their time and plan out study schedules, which are very useful skills to have when they enter senior high school years, tertiary study and eventually the workforce. Completing homework early in the schooling years ensures that it becomes a habit — not an inconvenience.

❖ Students can engage with their studies

Even with the whole day spent at school, allocated class time is not always sufficient when it comes to engaging students with their school work. Setting homework allows students to revise content learnt during the day with a fresh set of eyes and a clear head, away from their friends and other schoolyard distractions. This also provides parents with an opportunity to get involved in their child's school work, providing assistance and additional insight when needed.

❖ **Teachers can keep track of progress**

Homework /Assignment allows teachers to track students' progress, meaning that they can spot when a child is struggling with content or falling behind the rest of the cohort. Submitting homework also provides a good lesson in responsibility and diligence, often with disciplinary consequences if homework is not returned or completed to the required standard. Homework can also be a good talking point during parent–teacher interviews.

Disadvantages

❖ **Homework eats up free time**

This is one of the most common arguments against homework — it eats up the valuable time kids have to spend with their family, attend extracurricular activities and catch up with friends. For older children, schoolwork may also compete with part-time and casual work.

❖ **Excess homework causes children to feel 'burnt out'**

After a busy day at school and extracurricular activities thrown into the mix, sitting down to complete homework can seem like a monumental task, causing some children to feel burnt out well before they reach the tough final years of school. In some cases, homework may even be assigned over term breaks. This causes severe stress for some children, leading to issues such as sleep deprivation.

❖ **Homework/ Assignment is rarely valuable**

Although teachers work hard to set homework tasks that will engage children, it is sometimes difficult to see the value in the assignments child brings home. It can also be tempting for parents help their children with their homework, meaning that the benefits of homework as a learning tool are lost entirely. The volume of homework may also mean that children are not able to dedicate as much time to each task as would be ideal.

Simulations

What is a simulation?

Simulations are instructional scenarios where the learner is placed in a "world" defined by the teacher. They represent a reality within which students interact. The teacher controls the parameters of this

"world" and uses it to achieve the desired instructional results. Students experience the reality of the scenario and gather meaning from it.

A simulation is a form of experiential learning. It is a strategy that fits well with the principles of Student-Centered and constructivist learning and teaching.

Simulations take a number of forms. They may contain elements of:

- A game
- A role-play, or
- An activity that acts as a metaphor.

Simulations are characterised by their non-linear nature and by then controlled ambiguity within which students must make decisions. The inventiveness and commitment of the participants usually determines the success of a simulation.

Why use Simulations?

Simulations promote the use of critical and evaluative thinking. Because they are ambiguous or open-ended, they encourage students to contemplate the implications of a scenario. The situation feels real and thus leads to more engaging interaction by learners.

Simulations promote concept attainment through experiential practice. They help students understand the nuances of a concept. Students often find them more deeply engaging than other activities, as they experience the activity first-hand, rather than hearing about it or seeing it.

Common issues using simulations

Resources and time are required to develop a quality learning experience with simulations. Assessment of student learning through simulation is often more complex than with other methods.

Simulated experiences are more realistic than some other techniques and they can be so engaging and absorbing that students forget the educational purpose of the exercise.

If your simulation has an element of competition, it is important to remind the students that the goal is not to win, but to acquire knowledge and understanding.

How to achieve effective teaching with case studies

In a simulation, guided by a set of parameters, students undertake to solve problems, adapt to issues arising from their scenario and gain an awareness of the unique circumstances that exist within the confines of the simulation.

Some simulations require one hour, while others may extend over weeks. Scope and content varies greatly. However, similar principles apply to all simulations.

1) Prepare in advance as much as possible

- Ensure that students understand the procedures before beginning. Frustration can arise when too many uncertainties exist. Develop a student guide and put the rules in writing.
- Try to anticipate questions before they are asked. Some simulations are fast-paced, and the sense of reality is best maintained with ready responses.
- Know what you want to accomplish. Many simulations have more than one instructional goal. Developing evaluation criteria, and ensure that students are aware of the specific outcomes expected of them in advance.

2) Monitor the process closely

Teachers must monitor the simulation process to ensure that students both understand the process and benefit from it. Ask yourself:

- Does this simulation offer an appropriate measure of realism for my group of students?
- Are the desired instructional outcomes well defined?
- Is the level of ambiguity manageable for this group?
- Does the student demonstrate an understanding of his/her role?
- Are problem-solving techniques in evidence?
- Does the research being generated match the nature of the problem?
- Is cooperation between participants in evidence?
- Has the student been able to resolve the issue satisfactorily?
- Does the student provide meaningful answers to probing questions?
- Will follow-up activities be necessary?

3) Consider what to assess

You might find it best to use simulations as part of the process of learning rather than as a summative measure of it. Use follow-up activities to establish a measure of comprehension and as a de-briefing

mechanism when students return to reality (e.g. use reflection on the process as the assessable component of the activity, rather than participation in the simulation itself).

Advantages of Simulation Teaching

- Simulation allows trainees to purposely undertake high-risk activities or procedural tasks within a safe environment without dangerous implications. Learners don't have to wait for a real situation to come up in order to learn.
- Simulation can improve trainees' skills and allow them to learn from error. Learners are able to gain a greater understanding about the consequences of their actions and the need to reduce any errors.
- Simulation offers trainee participation. Rather than sitting through a training lecture, trainees can practice what they have learnt and quickly learn from any mistakes without serious implications.
- Learners address hands-on and thinking skills, including knowledge-in-action, procedures, decision-making, and effective communication. Many games enable players to embody different characters thus helping to breed attitudes of tolerance and understanding.
- Simulation provide a safe artificial environment within which learners with low self-esteem may feel more inclined to explore, investigate and express themselves. Simulated learning can be set up at appropriate times and locations, and repeated as often as necessary.
- Simulation learning can be customized to suite beginners, intermediates and experts to hone their skills as to speak .Feedback can be given to learners immediately and allow them to understand exactly what went wrong and how they can improve.
- Simulation is best suited to analyze complex and large practical problems when it is not possible to solve them through a mathematical method.
- Simulation is flexible, hence changes in the system variables can be made to select the best solution among the various alternatives .In simulation, the experiments are carried out with the model without disturbing the system.
- Simulation provides a valuable link between activities within the classroom and life outside school. Such a connection will help to make students to have better understanding to see the world in different perspective.
- Simulation help teacher to connect the teaching material to the student's real world and encourage the students to make a relation between the knowledge that they have already had with the application in their life as a member of society.

- It is similar to the real life experience; the problems that students will be found in the real life can be stimulated. So, the students try to solve the problem and make a decision from among alternatives to achieve a particular object.
- Simulation can be used to teach content that it is very difficult to teach in the classroom. Simulation offers different technique from the others it can deliver all kind of issues which cannot be limited by time perspectives.
- The power of simulations is to transpose the normal classroom into an authentic setting where skills can be evaluated under more realistic conditions. It prepares students to be able to face the complexity in the real world .
- Simulation is engaging and motivating approach to students. It gets them involved and holds their attention longer. Children usually learn and retain more knowledge using role play.
- Students actually engage in the learning process rather than passive receiver of knowledge. Children learn the most from play when they have skilled teachers who are well-trained in understanding how play contributes to learning.

Disadvantages of Simulation Method

- Simulation does not generate optimal solutions. No real consequences for mistakes may result in students under performing and not being fully engaged in the training, thus producing inaccurate result.
- It may take a long time to develop a good simulation model. To simulate something a thorough understanding is needed and an awareness of all the factors involved, without this a simulation cannot be created.
- In certain cases simulation models can be very expensive. Simulators can be very expensive and require constant updates and maintenance.
- The decision-maker must provide all information about the constraints and conditions for examination, as simulation does not give the answers by itself.
- Simulation is not always able to completely re-create real-life situations .So not every situation can be included.
- The results and feedback are only as effective as the actual training provided.
- Staff need to be trained on how to use the software and/or hardware and this takes up time and costs money.
- The results of the simulation may not be readily available after the simulation has started — an event that may occur instantaneously in the real world may actually take hours to mimic in a simulated environment..

- While this technique can dramatically reduce the simulation time, it may also give its users a false sense of security regarding the accuracy of the simulation results.

If the level of abstraction is too high, then it may be impossible to actually build the device physically due to the lack of sufficiently detailed information within the design

UNIT 3

Overview of the JHS agricultural science syllabus

Curriculum materials; Overview of the Basic School Agricultural Science Syllabus

Curriculum materials for teaching agricultural science include

- Kindergarten Curriculum (Kg 1&2)
- Our World And Our People Curriculum For Primary Schools (Basic 1 – 3)
- Our World And Our People Curriculum For Primary Schools (Basic 4 - 6)
- Science Common Core Programme Curriculum (Basic 7 - 10)
- The curriculum is supported by a Teacher’s Resource Pack and a Learner’s Resource Pack for each class

Before teaching agricultural science, it is important to study the front matter of the curriculum carefully to be familiar with the following:

- Rationale
- Philosophy
- General Aims
- Specific Aims
- Teaching And Learning Expectations
- Core Competences
- Knowledge Understanding And Application
- Values
- Process Skills
- Assessment and forms of assessment
- Suggested Time Allocation
- Pedagogical Approaches

Objectives for teaching and learning Agricultural Science

- Objectives serve as the basis for assessment and evaluation of learning
- They are derived from the rationale and philosophy underpinning the curriculum
- Every learning activity must be based on a clearly stated objective.
- The curriculum materials at the KG 1 to B 6 include set objectives and lesson plans covering all content indicators and exemplars

Philosophy for teaching our world and our people

- The OWOP classrooms should be learning-centred where the teacher, acting as a facilitator, introduces the topics for the day and assists learners to describe and analyse issues raised. In addition, the teacher helps learners to interact and share ideas amongst themselves based on their knowledge of Ghana and the world. The class will be encouraged to explore topics through **enquiry-based questions**.
- The OWOP curriculum is underpinned by seven geographical concepts. The teacher should emphasize these important concepts in the day-to-day learning as they are aimed at promoting higher order thinking among learners. These concepts are:

General aim of our people and our world

- The curriculum, Our World and Our People, aims at producing a morally upright Ghanaian, who is responsible and capable of maintaining a healthy lifestyle and preserving their environment for sustainability.

SUBJECT SPECIFIC AIMS

- The aims of the Our World and Our People curriculum are to enable learners to:
- . Develop awareness of their creator and the purpose of their very existence;
- Appreciate themselves as unique individuals.
- .Exhibit sense of belonging to the family and community
- Demonstrate responsible citizenship.
- .Explore and show appreciation of the interaction between, plants, animals and their physical environment;
- Show love and care for the environment.
- Develop attitudes for a healthy and peaceful lifestyle.
- Appreciate Use ICT as a tool for learning

Teaching Philosophy for Basic 7 to Basic 10 Science

Ghana believes that an effective science education needed for sustainable development should be hinged on inquiry. Thus science education must provide learners with opportunities to expand, change, enhance and modify the ways in which they view the world. It should be pivoted on learner-centred approach to teaching that engages learners physically and cognitively in the knowledge-acquisition process in a rich and rigorous inquiry driven environment.

Learning Philosophy B7-B10 Science

Science Learning is an active contextualized process of constructing knowledge based on learners' experiences rather than acquiring it. Learners are information and knowledge constructors who operate as researchers. Teachers serve as facilitators by providing the enabling environment that promotes the construction of learners' own knowledge based on their prior experiences. This makes learning more relevant and meaningful to the learner and leads to the development of critical thinkers, problem solvers and innovators

Aims of Science

The curriculum of the common core science programme at B7 to B10 is designed for learners to achieve the following aims:

- ❖ Develop the spirit of curiosity, creativity, innovation and critical thinking for investigating and understanding their environment.
- ❖ Develop skills, habits of mind and attitudes necessary for scientific inquiry.
- ❖ Communicate scientific ideas effectively.
- ❖ Use scientific concepts in explaining their own lives and the world around them.
- ❖ Live a healthy and quality life.
- ❖ Develop humane and responsible attitude towards the use of all resources of Ghana and elsewhere.
- ❖ Show concern and understanding of the interdependence of all living things and the Earth on which they live.
- ❖ Design activities for exploring and applying scientific ideas and concepts.
- ❖ Develop skills for using technology to enhance learning.
- ❖ Use materials in their environment in a sustainable manner

THE CONCEPT OF LEARNING

LEARNING-CENTRED PEDAGOGY

- ❖ The learner is at the Centre of learning. At the heart of the national curriculum for change and sustainable development is the learning progression and improvement of learning outcomes for Ghana's young people with a focus on the 4Rs – Reading, wRiting, aRithmetic and cReativity. It is expected that at each curriculum phase, learners would be offered the essential learning experiences to progress seamlessly to the next phase.

- ❖ The Curriculum encourages the creation of a learning centred classroom with the opportunity for learners to engage in meaningful “hands-on” activities that bring home to the learner what they are learning in school and what they know from outside of school. The learning centred classroom is a place for the learners to discuss ideas through the inspiration of the teacher.
- ❖ The learners then become actively engaged in looking for answers, working in groups to solve problems. They also research for information, xiv analyse and evaluate information. The aim of the learning-centred classroom is to enable learners to take ownership of their learning. It provides the opportunity for deep and profound learning to take place.

The concept of learning

The teacher as a facilitator needs to create a learning environment that:

- makes learners feel safe and accepted;
- . helps learners to interact with varied sources of information in a variety of ways;
- helps learners to identify a problem suitable for investigation through project work;
- connects the problem with the context of the learners’ world so that it presents realistic opportunities for learning;

INCLUSION

The teacher as a facilitator needs to create a learning environment that:

- Organizes the subject matter around the problem, not the subject;
- Gives learners responsibility for defining their learning experience and planning to solve the problem;
- Encourages learners to collaborate in learning; and
- Expects all learners to demonstrate the results of their learning through a pro

Inclusion is ensuring access and learning for all learners especially those disadvantaged. All learners are entitled to a broad and balanced curriculum in every school in Ghana. The daily learning activities to which learners are exposed should ensure that the learners’ right to equal access and accessibility to quality education is met.

The Curriculum suggests a variety of approaches that address learners’ diversity and their special needs in the learning process. These approaches contribute to the full development of the learning potential of every learner.

Learners have individual needs, learning experiences and levels of motivation for learning.

Planning, delivery and reflection on daily learning experiences should take these differences into consideration

The Curriculum Promotes:

- learning that is linked to the learner's background and to their prior experiences, interests, potential and capacities
- learning that is meaningful because it aligns with learners' ability (e.g. learning that is oriented towards developing general capabilities and solving the practical problems of everyday life); and
- the active involvement of the learners in the selection and organisation of learning experiences

Differentiation

- A process by which differences (learning styles, interest and readiness to learn) between learners are accommodated so that all learners in a group have the best possible chance of learning.
- Differentiation could be by task, support and outcome.
- Differentiation as a way of ensuring each learner benefits adequately from the delivery of the curriculum can be achieved in the classroom through i) task ii) support from the Guidance and Counselling Unit and iii) learning outcomes Differentiation by task involves teachers setting different tasks for learners of different abilities.
- Differentiation by support involves the teacher giving the needed support and referring weak learners to the Guidance and Counselling Unit for academic support.
- Differentiation by outcome involves the teacher allowing learners to respond at different levels. Weaker learners are allowed more time for complicated tasks.

Scaffolding

- ✓ Refers to the use of variety of instructional techniques aimed at moving learners progressively towards stronger understanding and ultimately greater independence in the learning process.
- ✓ It involves breaking up the learning task, experience or concepts into smaller parts and then providing learners with the support they need to learn each part.

Common scaffolding strategies available to the teacher

- Giving learners a simplified version of a lesson, assignment, or reading, and then gradually increases the complexity, difficulty, or sophistication over time;
- Describing or illustrating a concept, problem, or process in multiple ways to ensure understanding;
- Giving learners an exemplar or a model of an assignment, they will be asked to complete;
- Giving learners a vocabulary lesson before they read a difficult text;
- Describing the purpose of a learning activity clearly and the learning goals they are expected to achieve; and
- Describing explicitly how the new lesson builds on the knowledge and skills learners were taught in a previous lesson.

UNIT 4

DEVELOPMENT OF AGRICULTURAL TEACHING MATERIALS

Instructional Materials, also known as **Teaching/Learning Resource (TLR)**, are any collection of materials including animate and inanimate objects and human and non-human resources that a teacher may use in teaching and learning situations to help achieve desired learning objectives. Instructional materials may aid a student in concretizing a learning experience so as to make learning more exciting, interesting and interactive. They are tools used in instructional activities, which include active learning and assessment. The term encompasses all the materials and physical means an instructor might use to implement instruction and facilitate students' achievement of instructional objectives.

Instructional materials can be classified by type, including print, visual, and audiovisual, among others:

Print	Textbooks, pamphlets, handouts, study guides, manuals
Audio	Cassettes, microphone, podcast
Visual	Charts, real objects, photographs, transparencies
Audiovisual	Slides, tapes, films, filmstrips, television, video, multimedia
Electronic Interactive	Computers, graphing calculators, tablets

Student teachers are required to prepare and use teaching materials such as lesson notes, weekly forecast, time table, pictures, posters, power point presentations, animations, etc.

Weekly Forecast

What is a weekly forecast in teaching?

Weekly planning is done with a working document that shows what a **teacher** is planning to do and **teach** over a week-long period. Often **teachers** will begin their **weekly** planning after completing their long-term planning for the year.

The major difference in the meaning of the two terms lays their second names – **plan** and **note**. Consequently, let's begin with the meaning of both terms – what is a plan and what is a note as used in this context?

What is (Lesson) Plan?

(Wiktionary) in one definition states that a plan is a drawing showing technical details ... with unwanted details omitted, and often using symbols rather than detailed drawing. Similarly in the second part,

(Wiktionary) defines a plan as a set of intended actions, usually mutually related, through which one expects to achieve a goal.

Drawing the Differences between Lesson Plan and Lesson Note

1. Semantically

The difference in the meanings of **Lesson Plan** and **Lesson Note** is that while **Lesson Plan** contains the breakdown of the lesson in steps after a careful study of the topic, **Lesson Note is mostly the explanation of the step (s) after critical thinking.**

Take for instance, the first term and Week 1 **Lesson Note** on Basic Science for Primary 2. The third step in delivering the lesson is **listing things in a garden.** Then the note is: “Having explained the meaning of a garden, the teacher asks the pupils to mention the things they could see in a garden”. Afterwards, if there are not enough things mentioned, the teacher displays the video/pictures of garden and asks the pupils to identify the objects they could see in it. The teacher writes each items on the board as it is mentioned.

From this instance, you should note that ordinarily, how the teacher goes about listing the things in a garden is not necessarily a content of the **Lesson Plan**, save perhaps for the actual list although it is important for the teacher.

Lesson Note may also refer to the explanatory message which is given to students to copy into their notes so as to help them remember what the teacher taught them – i.e. the board summary. In this sense, you often should find students saying, “I’ve copied the note” or something similar with reference to note.

Similarly, **Lesson Note may mean the reminder by a teacher (the author of the Lesson Plan) to guide a substitute teacher on what s/he is to do or cover.** Or it may mean an assessment information after delivery (evaluation) to remind a teacher (who delivered the lesson) the areas to revisit or improve upon subsequently.

2. Technicality

Generally, **Lesson Plan** is more technical than **Lesson Note.** A well-written **Lesson Plan** incorporates educational theories. More so, **Lesson Plan** follows principles in instructional design. This is to say that to an extent, only one who understands the technicality of a lesson is able to write a very good **Lesson Plan** – although any willing person can learn such technical details easily. Finally on the technicality of **Lesson Plan** apart from **Lesson Note, Lesson Plan** must contain some key components.

Key Elements of Lesson Plans

When you write a lesson plan, you need to consider some key elements to make sure the lesson plan is focused and designed to meet all of your students' needs. The three components that you should include in a lesson plan to ensure that it's solid and effective are:

- Learning objectives
- Activities
- Tools to check for understanding

Learning Objectives

You should first identify the learning objectives you wish to address. This can be done by zeroing in on the topic, asking yourself what you want to see students accomplish by the end of the lesson and what you want them to be able to do with the information they will learn. Once these objectives have been established, it's a good idea to rank them in order of importance to help with time management. If you have a plan in place to identify the concepts that are the most important in your lesson, you'll know what you can skip if you don't have enough time to cover everything.

Activities

The activities section of your lesson should be the largest section, taking up the most time. You should plan on using a variety of activities to explain what is being taught in the lesson. With the use of different learning and teaching activities, you can reach a wide range of learning styles. Activities should be fun, interactive and should also be applied to real-world situations whenever possible.

Tools to Check for Understanding

This part of the lesson is important for students but also vital for you, as the teacher. This section of the lesson plan will help you gauge what students will take away from the lesson and how much of it they were able to retain. In this section, you can include an assessment which can be formal or informal. Some examples of assessments include asking a series of questions, having a class discussion, or having students work on short group projects. Any way that you can gauge students' understanding of a particular lesson is beneficial. In the future, you can plan other lessons based on the feedback and outcomes you receive from past lessons.

3. Format of Writing

Being a technical document, **Lesson Plan** is formal – an office requirement. And as with most office documents, **Lesson Plan** follows a particular format. This format is relative to the school. In other words, the format of **Lesson Plan** varies from school to school and one location to another. In fact, the format of **Lesson Plan** may depend on the subject. While some schools do not recommend a particular format, others prefer **Lesson Plan** in a tabular form and a few, the conventional essay format.

In contrast, **Lesson Note** is usually in essay format except when written alongside, and as explanation of the presentation steps of **Lesson Plan**.

4. Formality

Lesson Plan is always a formal document. It is a requirement for teachers to write **Lesson Plans** as preparation for classes. Generally, schools also require their teachers to submit such plan periodically – some weekly while others Termly i.e. prior to the commencement of the term.

On the contrary, **Lesson Note** being only a reminder to the teacher; is usually not required to be submitted to the school authority. This is of course not when **Lesson Note** is used in reference to the explanatory note which is given to students – to copy into their notes. In this sense, subject teachers normally call for students' notes for marking.

In summary, the differences between lesson plan and lesson note are:

- A Lesson plan is a drawing of the steps/actions through which a teacher expects to deliver a lesson in order to attain the objectives of the lesson without unwanted details while lesson note is the detailed explanation of the steps/actions or a reminder of what a teacher should do.
- Lesson plans incorporates educational theories and follows instructional design principles but lesson note does follow instructional design principles though the explanation of the steps may incorporate one or more educational theories.
- Lesson plan has standard components but lesson note does not except when written together with lesson plan.
- Lesson plan have more than one format but lesson note is usually in essay format.
- Lesson plan is an official school record so it is submitted for periodic markings but lesson note is normally not submitted except when written together with lesson plan.

School Timetable

What is Timetable?

- **This is a schedule of events (teaching) and the times at which they will take place**
- Timetable is a kind of schedule that shows when specific events will happen. It is a plan which shows at what times certain activities will happen. Therefore, a timetable is very useful in planning ahead. Timetable tells the order in which events will take place.

A school timetable is for managing school-related activities. It is useful for students, teachers, rooms, and other resources. A school timetable usually cycles every week or every fortnight.

How to Make School Time Table – Importance, Types, and Principles

Importance of Timetable

A school timetable is certainly a useful tool. Its importance is due to the following reasons:

Curriculum Organization

A school timetable has defined period lengths. It also has specific subjects for each period. Hence, it allows administrators to distribute enough resources to most curriculum parts. The organization of a good timetable is such that important subjects are at the best times.

Student Organization

A timetable informs students about the time of class periods. Furthermore, it also lets them know the duration of each class period. Without a school timetable, the students will not be able to prepare properly.

Reducing Confusion

A good school timetable reduces confusion for teachers. A school timetable allows teachers to properly make their routines. Hence, teachers feel comfortable. Another benefit is that teachers can also remove mistakes.

Critical Routines

Above all, the most important reason is developing a routine. This routine is for all students and staff. Teachers must develop routines for students. Administrators must describe when and where students go for class. Also, administrators should tell which teacher will teach what class.

Types of Timetable

Consolidated Timetable

It's an integrated timetable of all classes in a school. A copy of it should be in the principal office and staff room.

Class wise Timetable

This tells which class is at which time. Furthermore, it also tells which teacher will teach what class.

Teacher wise Timetable

This is useful for the teachers. It tells where a teacher will be going to teach and what subject. Each teacher must have a copy of the concerned timetable.

Teachers Free Period Timetable

A copy of this is available at the principal office. The principal can use this to arrange for substitution when a teacher is absent.

Games Time Table

This shows the games which each class will have at a specific time. It helps students to select their favorite activity.

Principles of Timetable

The following principles are important when making a timetable:

Type of School

First of all, one should see whether a school is a single-gender school or co-educational. Also one should see whether it is rural or urban school. The level of school- junior school, middle school, high school, or intermediate school. Also, the nature of activities is also important for consideration.

Department Regulation

The department of education decides the duration of the school year. It also sets the duration of a school day. Furthermore, it also decides the number and duration of class periods.

The Principle of Justice

A good timetable gives responsibility to teachers of suitable subjects. The teacher has the qualification for such subjects. He should not teach in more than two departments. The teaching load should be equal for everyone.

Importance and Difficulty of Subjects

The time given to a subject must follow this. Hence time should be more for more important and difficult subjects.

How to Make a School Timetable?

Now the important question comes, “how to make a school timetable”. Preparation of a school timetable happens in the following manner:

Prepare a List

This is a list of what one needs to do on a daily basis. At this stage, one should not worry about the organization.

Write Tasks

Here one should all the tasks one intends to do. Here one should write all the tasks whether big or small.

Analyze the List

Re-check the tasks to see if they are really necessary. Certainly, there would a need for corrections in this stage.

Open Microsoft Excel or a similar

Create a column of times on the left side. Create a row of days of the week at the top.

Matchup Tasks with Time

Begin with tasks that take place at a certain time. Then go to other tasks on the basis of difficulty.

Be Flexible

The time should be flexible to allow room for changes. This is because no task can be absolutely fixed.

Print Spreadsheet

Finally, the preparation of the school timetable is over.

Learning with Pictures (Experience in Visual Education)

Picture is visual representation (of any object or scene or person or abstraction) produced on a surface

Generally speaking, pictures, paintings, and other visuals constitute the most effective, most plentiful, and least expensive teaching medium. It is also the medium that is least utilized. There are good school-useful pictures in abundance, almost anywhere you look. Yet, we as teachers are underutilizing this eminently useful resource.

The old saying that a picture is worth a thousand words may or may not be true. What is true, however, is that one appropriate picture can be a catalyst giving rise to the production of thousands of words and a multitude of creative and analytical thoughts.

Used appropriately and sequentially, pictures can not only illustrate a topic but also can provide the experience base children require in order to profit from reading and writing and from numerous other learning experiences, including those associated with art programming.

Sources of Pictures

Sometimes, teachers say that they have difficulty finding appropriate pictures. This may be the situation if a picture is looked for when one is needed to fit a particular concept or lesson. The "secret" is to collect pictures, whenever and wherever they can be found, regardless of whether they fit an immediately perceived need. Eventually, the collection will grow. Sources of pictures are numerous, the following probably being the most obvious:

Calendars

Magazines

Post Cards

Greeting Cards

Advertising (Especially Tourist Brochures)

Posters, Etc.

For Quality Prints: Art Stores and

Mail Order Services.

Also, we might enlist children in picture collecting. They will likely be enthusiastic helpers. Sometimes, they let their grandparents and relatives in other towns know of their quest and, before long, the trickle of pictures can become a veritable flood.

An Organized Collection

Teachers and principals will quickly learn that it is one thing to have a collection of pictures; it is quite another thing entirely to have a collection of pictures that can be used. A collection of pictures will quickly reach such a quantity that it will be of limited utility unless it is an ORGANIZED collection. The organization may be by topic or theme, in individual file folders, and accessibly stored in a file cabinet or picture file. If a teacher has to spend a lot of time sifting through a series of pictures, then it is likely that s/he will find that activity a frustrating exercise... with predictable results.

After some point in the collection building, it may be useful to include identification criteria (i.e., a code) on each visual (i.e., picture) so that when the teacher is finished with a picture, it can be replaced in the appropriate file folder. To make the borrowing process easier, it may be most useful to have pictures (i.e., photographs) filed separately from painting reproductions. A separate file section may be reserved for "illustrations and diagrams".

Building Picture Files

Teachers should pool their picture collections in some central location. Then the visuals should be categorized according to topic or theme. To some degree the category will be determined solely by the content of the picture. However, pictures may also be categorized according to intended use.

Some Picture Categories:

Fruit	
Trees	
Birds	Animals
Pots and Pans	Unusual Patterns
People	Shapes
Waterfalls	Designs
Mountains	Vegetables
Barns	Dishes
Mills	Costumes
Bridges	Clothing
Boats & Wharves	Everyday Items
Seascapes	Children at Play
Churches	Babies
Street Scenes (Shops, Stores, Etc.)	Rivers
Antique Vehicles	Ponds & Lakes
"Scenes"	Etc.
Space	
Etc.	

How Big Should Pictures Be?

It depends! A small picture can be used in a one-one situation or in a small group. However, a much larger picture will be needed for larger groups. The rule of thumb is "every student should be able to see the detail". In other words, we should get pictures and painting reproductions that are as big as possible.

Large pictures and posters will need their own storage. We may have to ask the school's "handyman" to make a poster file of the type found in Art reproduction stores.

Selecting pictures (photographs, illustrations, paintings) for use with children requires just as much care as selecting stories and other portions of text for reading. The "content" of the picture must be consistent with the age and maturity of the children.

The visuals selected should be those having elements which the particular group of children will be able to identify, based on their previous experiences. These past experiences may be "real" experiences - a visit, say, to a history museum, or to market, or to a circus, or a stage play - either as an actor or as an observer. Also, the experiences may be more-or-less vicarious - classroom video presentation, say, or tape-slide show, or previous photographs, or a TV show at home, or a movie, or a book read in class, or a newspaper or magazine.

If a picture needs background information or experiences, then we should ensure that these experiences are provided before attempting to utilize the picture.

Particular attention should be given to site-specific or geographic specific pictures. An inner city child who has never been as far as the suburbs will certainly have a different set of site-specific experiences than will a village child who has never visited a city or who has never seen a building higher than two stories.

In other words, a high degree of "fit" is required between the picture and the child-group, if the picture is to be used effectively.

Using Pictures

In order to extract the optimum amount of "experience" from any one picture, the picture has to be "selected" and should meet several criteria:

1. It has to be appropriate. For example, the following criteria will need to be considered:

- Age of students.
- Geographic locale of usage.
- Past "real" experiences of students.
- Past vicarious experiences of students.

"Experiences" include those of a spatial/temporal nature (e.g., travel), as well as those of a more passive/static nature (e.g., past reading/writing experiences, schooling experiences, past experiences with various visual media, including those with pictures).

2. It has to be appropriately sequential. That is, the content of the picture has to have some consistency/commonality with the experience-base of the students. That is, when the teacher is selecting a visual, the background experiences of children will be a determining factor in that selecting process.

For a primary child, for example, the most effective picture will be one which has identifiable life-experience content. Subsequent pictures can have reduced amounts of life-experience content and greater amounts of other, experience-based (e.g., previous pictures) content.

In other words, we should adopt a concept of pictures that is quite like a concept of reading. In order for a student to "read" a picture, s/he has to have a sufficient "picture vocabulary" (i.e., familiar images) to make sense of the picture. Just as it would be frustrating for a child to try to interpret text with much unfamiliar vocabulary, so will it also be frustrating for a child to try to "read" a picture with many unfamiliar images. Likewise, just as children will be able to predict from context in reading print, so will they attempt to predict from context in "reading" pictures.

In other words, there has to be a match between the level of preparedness of the children and a particular visual. That is, the visual has to be such that the child is able to "bridge the gap" between the familiar and the unfamiliar elements of the visual. It is necessary to consider the maturity of children and their interests. If the visual hooks their interest, then they will likely do more looking and experience more seeing.

3. It has to be appropriately complex. We need to avoid simplicity, or visuals which patronize. If the visual does not have some complexity, then children will likely simply dump their perceptions from the images into their already existing cognitive categories and no learning, no seeing, occurs.

Just as in reading print, there has to be some challenge, room for some judgment, some critical thinking, some learning, some hypothesizing and testing hypotheses, some detail finding, some identification processes, and so on. After all, the visuals are being used as tools of learning, a tool for teaching children to see, a tool for assisting children to develop critical looking to complement their critical thinking.

Utilizing Pictures in Lessons

1. Do Not Provide Closure

Do not tell the student what the picture is "about". Let the child determine for her/himself. It is appropriate, of course, for the teacher to identify unfamiliar objects and, at the appropriate time, to identify the setting if the children have not succeeded in doing so. If children identify a farming scene, for example, as being "Pop's garden" when it is really a picture of the Peace River District of Alberta, then the evidence in the picture has to justify itself. If the evidence in the picture does not identify itself as being geographic-specific, then there is no point in telling the geographic location

We must let the child decide - tentatively - based on the evidence, always tentatively! The child is encouraged to seek new evidence and to change his/her mind if new evidence suggests it is appropriate to do so... but the child should **NOT** be induced to change her/his mind simply because the teacher **SAYS SO!** (Intellectual tyranny does not belong in the classroom).

We should not succumb to the natural teacher desire to be the "source of knowledge". To provide closure is to effectively destroy the value of the picture as a future teaching tool, as a source of student enjoyment, and as a source of wonder and discovery. When **THE TEACHER** tells the child "what a picture is about", then the child will have great difficulty progressing beyond the teacher's perception of the picture!!!

2. Accept the Child's Perception

We must remember that as adults we are seeing the world (including pictures) through adult eyes. We have conveniently, long ago, categorized experiences, so much so that our categories cause us to be perceptually blind, at least to some degree. The child has not yet developed firm, closed, mutually exclusive, comprehensive categories. The longer children's categories can be kept flexible, the greater their ability to "see". What they know causes them to see only what they know; they see what they believe. Children, generally speaking, retain flexible boundaries for their concepts and are delighted with the positive experiences of having these concept boundaries stretched.

Adults, however, sometimes cause children's concepts to become rigid or closed. When this happens, children's ability to see and to look are both impaired.

Likewise, children's perception is impaired, and their concepts polluted, whenever human relationships and functioning are presented insensitively or stereo typically. In other words, some pictures deserve to be consigned to the trash because of the obvious damage they can do to children's perceptions, to their conceptualizations, and to their functioning.

3. Use Child Responses as a Catalyst for Questioning

We might ask a child why s/he claims to see what s/he claims to see. S/he might be right! Judicious questioning may be used to bring the discussion around to those aspects which teachers feel to be pertinent.

4. Provide Positive Feedback

We should make the child feel good because of his/her perception. If the teacher feels that the child is wrong, he/she must remember that the child may be right (a) in light of his/her experiences, and (b) in

absolute terms. Teachers should be aware of their perceptual blindness and make sure the child perceives the experiences as a positive and rewarding one.

5. Ask Easy Questions to Reluctant Students

This is one way to ensure success! Success will bring children out of their shells. If they find that they can be "right" for a change, they will gradually take bigger and bigger risks.

6. Don't be Afraid of Stimulating, Challenging, and Even Difficult Questions

Teachers should be prepared for some unexpected answers... and not be too hasty in providing the one, right, incontrovertible answer. It might be wrong! Absolutely!

7. Post the Picture

After being used in a lesson, the visual should be posted in the classroom, at student eye level. Children, if their interest has been aroused, will take the time to take a closer look, thus reinforcing the concepts of the lesson.

Typical Questioning Routes to Take When Using Pictures in Classroom Teaching

Obviously, the level and type of questioning used in the classroom will depend on the age, maturity and experiential background of the students. Questions such as the following will be adapted to "match" the readiness of the students:

1. What do you see in this picture?
2. How do you feel when you look at the picture?
3. What do you like about this picture?
4. What do you dislike about this picture?
5. Does this picture have some parts which are more interesting than other parts? What are they? Why are they more interesting?
6. What is the setting? Where? When? Date? Season?
7. Is there any action - describe.
8. Are there main figures?
9. What is the relationship between the main figure(s) and the minor figure(s)?
10. What is the relationship between the figures and the setting?
11. What feelings are exhibited in the picture? Do they "fit" the picture?
12. Talk about shape, line, light and shade, color, tone, texture, balance, repetition, variety, etc., especially in a 'painting' or other "work of art'.
13. What is this picture about? (Some pictures are really "sententious"; other less so).

14. Include both sensory and sentient experiences in discussion. (Sensory Experiences: touch, smell, taste, sight, sounds. Sentient Experiences: [emotional content?] fear, happiness, pleasure, loneliness, longing, sadness, love, hate, etc.)

Some Teaching Suggestions

a) The following are some general teaching suggestions:

We might let individual students find/select a picture (photograph or painting) and make a presentation in class or conduct a discussion to analyze the picture or painting.

b) We can have children find/select a picture and do a written analysis.

c) We might encourage (a) and (b) with groups.

d) As teachers, we should provide the pictures or paintings, initially, since children may have difficulty finding or selecting pictures until they have had related experiences.

Pictures have enormous potential as teaching tools. However, they have to be carefully selected and professionally utilized. When used appropriately children will learn to see and to think. Isn't that what education is about?

Implementing Posters in the Classroom

Posters are tools that enable visualization in the classroom to foster student learning. Cognitive science supports the visual display of information as useful for student learning; in particular, dual coding theory describes the benefit of both verbal and non-verbal processes for key components of cognition (Clark & Paivio, 1991). Posters provide an opportunity to pair visual learning with textbook reading, lecture, and traditional homework assignments. As such, posters are often created by students to visually display a significant course project, developing research, or a particular perspective for class to consider. Posters have typically been adopted in STEM courses, but they can be highly effective in humanities courses (Manarin, 2016), and have been shown to improve metacognitive practice too (Logan, et. al, 2015).

Examples

Instructors looking to implement posters in the classroom can consider using the backward_design process to develop a poster activity aligned with course learning_outcomes. The following examples provide approaches to this strategy:

- **Class Brainstorm** - An instructor poses a question to the class and gathers student responses on a poster for a class brainstorm. A student volunteer or the instructor acts as the scribe.

- **Summary of Main Ideas** - Students work together in small groups to summarize main ideas from class readings or other lessons. Each group later gives a 1-minute overview to the class of the ideas captured.
- **Concept Map** - In order to tie together key concepts learned from the course, students work in groups to create a concept map, providing a window into their conceptual understanding. The instructor uses these maps as formative assessment.
- **Common Poster Presentation** - Students choose a topic to investigate further for a class project, or carry out research for independent study or class. They display their main ideas on a poster and present it to the class, the instructor, or to attendees at a departmental poster session.
- **Problem-solving** - Students in a STEM (science, technology, engineering, and math) course work in groups and are assigned particular problems to solve. They work out their solutions on posters.
- **Before-/After-Assessment of Knowledge** - Students are given a particular task such as developing a concept map or listing all of their knowledge about a particular topic at the beginning of a course or class session. The instructor saves these “pre-” posters. At the end of the course, or class, the students repeat that task. The instructor displays the “before-” and “after-” posters side-by-side and asks students to consider their learning progression. The instructor also uses their posters to monitor whether they have reached particular learning outcomes.
- **Diagram of a Process** - For certain processes, visualization via a diagram can be useful for learning. An instructor presents the process to the class and asks the students to draw it out on large posters, which reinforces collaboration, varied learning, and skills application.
- **Timeline** - Students develop a timeline of major events learned on a poster. Examples could include: events leading up to a historical event such as the Civil War, geological time scales, or the life events of a particular historical figure.
- **Table** - Students have a list of key terms, such as important historical figures, based on course content. They complete a table, filling in key information, and comparing posters to ascertain missing elements or different perspectives. Students then use this table as a study tool.
- **Venn diagram** - Students capture similarities and differences between the items under discussion in class by creating a Venn diagram.

Recommendations

- **Select an appropriate poster type** - Posters come in many forms, from traditional cardboard to large post-it note versions with adhesive backing, to formal displays printed by companies. Instructors can consider the space available and the assignment when choosing a poster type. For example, if a classroom has limited table space, but available wall space, posters with adhesive backing are likely easier to utilize, with students standing around the poster during the construction process. If there is sufficient table space, the traditional cardboard poster may be sufficient. For more formal poster presentations, the traditional tri-fold cardboard posters may suffice, or formal posters printed through a copy company. Depending on the activity and appropriateness, students may be asked to purchase their own posters for class.
- **Implement a gallery walk** - An instructor can consider implementing a gallery walk to encourage students to examine the posters of their peers. In this teaching strategy, when all posters are completed, students are given time to walk around the class to review the work of others. After the gallery walk, students can be encouraged to share their observations with their peers. Further, students can give brief lightning-style talks at their poster to describe their work.
- **Archive posters** - With the ease of modern camera technology on smartphones, posters can easily be captured and filed digitally. Instructors can consider taking pictures of all posters and uploading them to their course learning management system tool such as Canvas for archival purposes. Alternatively, they can ask their students to take a picture of their poster and upload it to the course site.
- **Encourage Poster Study** - Students can use their posters as a study tool, especially if the material from the poster will be assessed in class at a later point.

Using Animation in Teaching

Animation is a method in which figures are manipulated to appear as moving images. In traditional **animation**, images are drawn or painted by hand on transparent celluloid sheets to be photographed and exhibited on film. Today, most animations are made with computer-generated imagery (CGI).

PowerPoint

PowerPoint is a presentation program developed by Microsoft. It is included in the standard Office suite along with Microsoft Word and Excel. The software allows users to create anything from basic slide shows to complex presentations.

PowerPoint is often used to create business presentations, but can also be used for educational or informal purposes. The presentations are comprised of slides, which may contain text, images, and other media,

such as audio clips and movies. Sound effects and animated transitions can also be included to add extra appeal to the presentation. However, overusing sound effects and transitions will probably do more to annoy your audience than draw their attention.

Most PowerPoint presentations are created from a template, which includes a background color or image, a standard font, and a choice of several slide layouts. Changes to the template can be saved to a "master slide," which stores the main slide theme used in the presentation. When changes are made to the master slide, such as choosing a new background image, the changes are propagated to all the other slides. This keeps a uniform look among all the slides in the presentation.

When presenting a PowerPoint presentation, the presenter may choose to have the slides change at preset intervals or may decide to control the flow manually. This can be done using the mouse, keyboard, or a remote control. The flow of the presentation can be further customized by having slides load completely or one bullet at a time. For example, if the presenter has several bullet points on a page, he might have individual points appear when he clicks the mouse. This allows more interactivity with the audience and brings greater focus to each point.

PowerPoint presentations can be created and viewed using Microsoft PowerPoint. They can also be imported and exported with Apple Keynote, Apple's presentation program for the Macintosh platform. Since most people prefer not to watch presentations on a laptop, PowerPoint presentations are often displayed using a projector. Therefore, if you are preparing a PowerPoint presentation for a room full of people, just make sure you have the correct video adapter.

With PowerPoint on your PC, Mac, or mobile device:

- Create presentations from scratch or a template.
- Add text, images, art, and videos.
- Select a professional design with PowerPoint Designer.
- Add transitions, animations, and motion.
- Save to OneDrive, to get to your presentations from your computer, tablet, or phone.
- Share and work with others, wherever they are.

Create a presentation

1. Open PowerPoint.
2. Select an option:
 - Select **Blank Presentation** to create a presentation from scratch.
 - Select one of the templates.
 - Select **Take a Tour**, and then select **Create**, to see tips for using PowerPoint.

Add a slide

1. Select the slide you want your new slide to follow.
2. Select **Home > New Slide**.
3. Select **Layout** and the you type want from the drop-down.

Add and format text

1. Place the cursor where you want, and type.
2. Select the text, and then select an option on the **Home** tab: **Font**, **Font size**, **Bold**, **Italic**, and **Underline**.
3. To create bulleted or numbered lists, select the text, and then select **Bullets** or **Numbering**.

Add a picture, shape, or chart

1. Select **Insert**.
2. To add a picture:
 - Select **Picture**.
 - Browse for the picture you want and select **Insert**.
3. To add a shape, art, or chart:
 - Select **Shapes**, **Icons**, **SmartArt**, or **Chart**.
 - Select the one you want.

UNIT 5

What Is Assessment?

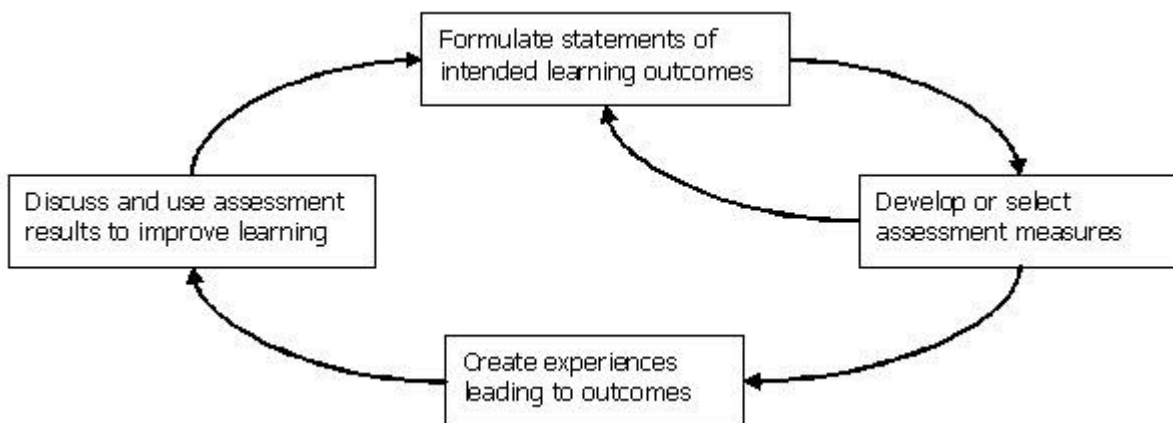
Definitions

Various definitions of assessment and the role it plays in teaching and learning:

1. Assessment involves the use of empirical data on student learning to refine programs and improve student learning. (Assessing Academic Programs in Higher Education by Allen 2004)
2. Assessment is the process of gathering and discussing information from multiple and diverse sources in order to develop a deep understanding of what students know, understand, and can do with their knowledge as a result of their educational experiences; the process culminates when assessment results are used to improve subsequent learning. (Learner-Centered Assessment on College Campuses: shifting the focus from teaching to learning by Huba and Freed 2000)
3. Assessment is the systematic basis for making inferences about the learning and development of students. It is the process of defining, selecting, designing, collecting, analyzing, interpreting, and using information to increase students' learning and development. (Assessing Student Learning and Development: A Guide to the Principles, Goals, and Methods of Determining College Outcomes by Erwin 1991)
4. Assessment is the systematic collection, review, and use of information about educational programs undertaken for the purpose of improving student learning and development. (Assessment Essentials: planning, implementing, and improving assessment in higher education by Palomba and Banta 1999)

Fundamental Components of Assessment

Four fundamental elements of learner-centered assessment:



1. Formulating Statements of Intended Learning Outcomes - statements describing intentions about what students should know, understand, and be able to do with their knowledge when they graduate.
2. Developing or Selecting Assessment Measures - designing or selecting data gathering measures to assess whether or not our intended learning outcomes have been achieved. Includes
 - Direct assessments - projects, products, papers/theses, exhibitions, performances, case studies, clinical evaluations, portfolios, interviews, and oral exams - which ask students to demonstrate what they know or can do with their knowledge.
 - B. Indirect assessments - self-report measures such as surveys - in which respondents share their perceptions about what graduates know or can do with their knowledge.
3. Creating Experiences Leading to Outcomes - ensuring that students have experiences both in and outside their courses that help them achieve the intended learning outcomes.
4. Discussing and Using Assessment Results to Improve Teaching and Learning - using the results to improve individual student performance.

The Assessment Cycle

- **Plan - What do I want students to learn?**
This stage includes the first fundamental component of assessment: Formulating Statements of Intended Learning Outcomes
- **Do - How do I teach effectively?**
This stage includes the second and third fundamental components: Developing or Selecting Assessment Measures & Creating Experiences Leading to Outcomes.
- **Check - Are my outcomes being met?**
This stage involves evaluation of assessment data (part of the fourth component).
- **Act - How do I use what I've learned?**
This stage involves reinforcing successful practices and making revisions to enhance student learning (part of the fourth component).

What is a test?

With a test you can investigate the knowledge level of the students. Mostly this is done with a series of questions. The questions can differ in form or format, but in the end you want your students to answer questions so you can grade them and see what result they get.

A good teacher adjusts its course material according the results of the tests he gives. So he can improve. The results can point the educator to part of his course material which aren't clear. Or where its class needs some extra attention so it will pass the final exam.

What is an examination?

As with a test you test the knowledge of your students with an exam. The exam consists of a series of questions. They can both multiple choice or free text questions, or a different format. In the end you want to grade the answers and assign a score to every student.

The end result makes a student pass or fail this exam.

So, what's the difference between a test and examination?

The big difference between a test and an exam is that an exam is more formal than a test. But, that said, they are used as synonyms throughout schools and courses. But, we think they serve a different purpose:

1. The tests is a tool to measure the knowledge level of your students and adjust the learning material accordingly. With the purpose to have your students learn.
2. An exam or the examination is more formal and it tells you if a student's passed or failed a class or course. In most cases you have to study again and re-take the exam. Or start the course or class all over again.

Test/Quiz Question Types

- True/False.
- **Multiple Choice.**
- Ordering.
- Short Answer/**Essay** Question.
- Fill-in-the-blank.
- Matching.

Exam Questions: Types, Characteristics, and Suggestions

Multiple choice

Multiple choice questions are composed of one question (stem) with multiple possible answers (choices), including the correct answer and several incorrect answers (distractors). Typically, students select the correct answer by circling the associated number or letter, or filling in the associated circle on the machine-readable response sheet.

Students can generally respond to these type of questions quite quickly. As a result, they are often used to test student’s knowledge of a broad range of content. Creating these questions can be time consuming because it is often difficult to generate several plausible distractors. However, they can be marked very quickly.

Tips for writing good multiple choice items:

Avoid	Do use
<p>In the stem:</p> <ul style="list-style-type: none"> • Long / complex sentences • Trivial statements • Negatives and double-negatives • Ambiguity or indefinite terms, absolute statements, and broad generalization • Extraneous material • Item characteristics that provide a clue to the answer misconceptions <p>In the choices:</p> <ul style="list-style-type: none"> • Statements too close to the correct answer • Completely implausible responses • ‘All of the above,’ ‘none of the above’ • Overlapping responses (e.g., if ‘A’ is true) 	<p>In the stem:</p> <ul style="list-style-type: none"> • Your own words – not statements straight out of the textbook • Single, clearly formulated problems <p>In the choices:</p> <ul style="list-style-type: none"> • Plausible and homogeneous distractors • Statements based on common student misconceptions • True statements that do not answer the questions • Short options – and all same length • Correct options evenly distributed over A, B, C, etc. • Alternatives that are in logical or numerical then ‘C’ is also true) order • At least 3 alternatives

Suggestion: After each lecture during the term, jot down two or three multiple choice questions based on the material for that lecture. Regularly taking a few minutes to compose questions, while the material is fresh in your mind, will allow you to develop a question bank that you can use to construct tests and exams quickly and easily.

True/false

True/false questions are only composed of a statement. Students respond to the questions by indicating whether the statement is true or false. For example: True/false questions have only two possible answers..

Like multiple choice questions, true/false questions:

- Are most often used to assess familiarity with course content and to check for popular misconceptions
- Allow students to respond quickly so exams can use a large number of them to test knowledge of a broad range of content
- Are easy and quick to grade but time consuming to create

True/false questions provide students with a 50% chance of guessing the right answer. For this reason, multiple choice questions are often used instead of true/false questions.

Tips for writing good true/false items:

Avoid	Do use
<ul style="list-style-type: none">• Negatives and double-negatives• Long / complex sentences• Trivial material• Broad generalizations• Ambiguous or indefinite terms	<ul style="list-style-type: none">• Your own words• The same number of true and false statements (50 / 50) or slightly more false statements than true (60/40) – students are more likely to answer true• One central idea in each item

Suggestion: You can increase the usefulness of true/false questions by asking students to correct false statements.

Matching

Students respond to matching questions by pairing each of a set of stems (e.g., definitions) with one of the choices provided on the exam. These questions are often used to assess recognition and recall and so are most often used in courses where acquisition of detailed knowledge is an important goal. They are generally quick and easy to create and mark, but students require more time to respond to these questions than a similar number of multiple choice or true/false items.

Example: Match each question type with one attribute:

1. Multiple Choice a) Only two possible answers
2. True/False b) Equal number of stems and choices
3. Matching c) Only one correct answer but at least three choices

Tips for writing good matching items:

Avoid	Do use
<ul style="list-style-type: none">• Long stems and options• Heterogeneous content (e.g., dates mixed with people)• Implausible responses	<ul style="list-style-type: none">• Short responses 10-15 items on only one page• Clear directions• Logically ordered choices (chronological, alphabetical, etc.)

Suggestion: You can use some choices more than once in the same matching exercise. It reduces the effects of guessing.

Short answer

Short answer questions are typically composed of a brief prompt that demands a written answer that varies in length from one or two words to a few sentences. They are most often used to test basic knowledge of key facts and terms. An example this kind of short answer question follows:

“What do you call an exam format in which students must uniquely associate a set of prompts with a set of options?” Answer: Matching questions

Alternatively, this could be written as a fill-in-the-blank short answer question:

“An exam question in which students must uniquely associate prompts and options is called a _____ question.” Answer: Matching.

Short answer questions can also be used to test higher thinking skills, including analysis or evaluation. For example:

“Will you include short answer questions on your next exam? Please justify your decision with two to three sentences explaining the factors that have influenced your decision.”

Short answer questions have many advantages. Many instructors report that they are relatively easy to construct and can be constructed faster than multiple choice questions. Unlike matching, true/false, and

multiple choice questions, short answer questions make it difficult for students to guess the answer. Short answer questions provide students with more flexibility to explain their understanding and demonstrate creativity than they would have with multiple choice questions; this also means that scoring is relatively laborious and can be quite subjective. Short answer questions provide more structure than essay questions and thus are often easy and faster to mark and often test a broader range of the course content than full essay questions.

Tips for writing good short answer items:

Type of question	Avoid	Do use
All short-answer	<ul style="list-style-type: none"> • Trivia • Long / complex sentences 	<ul style="list-style-type: none"> • Your own words • Specific problems • Direct questions
Fill-in-the-blank	<ul style="list-style-type: none"> • Taking out so many words that the sentence is meaningless 	<ul style="list-style-type: none"> • Prompts that omit only one or two key words at the end of the sentence

Suggestion: When using short answer questions to test student knowledge of definitions consider having a mix of questions, some that supply the term and require the students to provide the definition, and other questions that supply the definition and require that students provide the term. The latter sort of questions can be structured as fill-in-the-blank questions. This mix of formats will better test student knowledge because it doesn't rely solely on recognition or recall of the term.

Essays

Essay questions provide a complex prompt that requires written responses, which can vary in length from a couple of paragraphs to many pages. Like short answer questions, they provide students with an opportunity to explain their understanding and demonstrate creativity, but make it hard for students to arrive at an acceptable answer by bluffing. They can be constructed reasonably quickly and easily but marking these questions can be time-consuming and grader agreement can be difficult.

Essay questions differ from short answer questions in that the essay questions are less structured. This openness allows students to demonstrate that they can integrate the course material in creative ways. As a result, essays are a favoured approach to test higher levels of cognition including analysis, synthesis and evaluation. However, the requirement that the students provide most of the structure increases the

amount of work required to respond effectively. Students often take longer to compose a five paragraph essay than they would take to compose five one paragraph answers to short answer questions. This increased workload limits the number of essay questions that can be posed on a single exam and thus can restrict the overall scope of an exam to a few topics or areas. To ensure that this doesn't cause students to panic or blank out, consider giving the option of answering one of two or more questions.

Tips for writing good essay items:

Avoid	Do use
<ul style="list-style-type: none"> • Complex, ambiguous wording • Questions that are too broad to allow time for an in-depth response 	<ul style="list-style-type: none"> • Your own words • Words like 'compare' or 'contrast' at the beginning of the question • Clear and unambiguous wording • A breakdown of marks to make expectations clear • Time limits for thinking and writing

Suggestions: Distribute possible essay questions before the exam and make your marking criteria slightly stricter. This gives all students an equal chance to prepare and should improve the quality of the answers – and the quality of learning – without making the exam any easier.

Oral Exams

Oral examinations allow students to respond directly to the instructor's questions and/or to present prepared statements. These exams are especially popular in language courses that demand 'speaking' but they can be used to assess understanding in almost any course by following the guidelines for the composition of short answer questions. Some of the principle advantages to oral exams are that they provide nearly immediate feedback and so allow the student to learn as they are tested. There are two main drawbacks to oral exams: the amount of time required and the problem of record-keeping. Oral exams typically take at least ten to fifteen minutes per student. As a result, they are rarely used for large classes. Furthermore, unlike written exams, oral exams don't automatically generate a written record. To ensure that students have access to written feedback, it is recommended that instructors take notes during oral exams using a rubric and/or checklist and provide a photocopy of the notes to the students.

In many departments, oral exams are rare. Students may have difficulty adapting to this new style of assessment. In this situation, consider making the oral exam optional. While it can take more time to

prepare two tests, having both options allows students to choose the one which suits them and their learning style best.

Computational

Computational questions require that students perform calculations in order to solve for an answer. Computational questions can be used to assess student's memory of solution techniques and their ability to apply those techniques to solve both questions they have attempted before and questions that stretch their abilities by requiring that they combine and use solution techniques in novel ways.

Effective computational questions should:

- Be solvable using knowledge of the key concepts and techniques from the course. Before the exam solve them yourself or get a teaching assistant to attempt the questions.
- Indicate the mark breakdown to reinforce the expectations developed in in-class examples for the amount of detail, etc. required for the solution.

To prepare students to do computational questions on exams, make sure to describe and model in class the correct format for the calculations and answer including:

- How students should report their assumptions and justify their choices
- The units and degree of precision expected in the answer

Suggestion: Have students divide their answer sheets into two columns: calculations in one, and a list of assumptions, description of process and justification of choices in the other. This ensures that the marker can distinguish between a simple mathematical mistake and a profound conceptual error and give feedback accordingly.

Principles of Assessment

Principle 1 - Assessment should be valid Validity ensures that assessment tasks and associated criteria effectively measure student attainment of the intended learning outcomes at the appropriate level.

Principle 2 - Assessment should be reliable and consistent There is a need for assessment to be reliable and this requires clear and consistent processes for the setting, marking, grading and moderation of assignments.

Principle 3 - Information about assessment should be explicit, accessible and transparent Clear, accurate, consistent and timely information on assessment tasks and procedures should be made available to students, staff and other external assessors or examiners.

Principle 4 - Assessment should be inclusive and equitable As far as is possible without compromising academic standards, inclusive and equitable assessment should ensure that tasks and procedures do not disadvantage any group or individual.

Principle 5 - Assessment should be an integral part of programme design and should relate directly to the programme aims and learning outcomes Assessment tasks should primarily reflect the nature of the discipline or subject but should also ensure that students have the opportunity to develop a range of generic skills and capabilities.

Principle 6 - The amount of assessed work should be manageable. The scheduling of assignments and the amount of assessed work required should provide a reliable and valid profile of achievement without overloading staff or students.

Principle 7 - Formative and summative assessment should be included in each programme Formative and summative assessment should be incorporated into programmes to ensure that the purposes of assessment are adequately addressed. Many programmes may also wish to include diagnostic assessment.

Principle 8 - Timely feedback that promotes learning and facilitates improvement should be an integral part of the assessment process Students are entitled to feedback on submitted formative assessment tasks, and on summative tasks, where appropriate. The nature, extent and timing of feedback for each assessment task should be made clear to students in advance.

Principle 9 - Staff development policy and strategy should include assessment All those involved in the assessment of students must be competent to undertake their roles and responsibilities.

Principle 10. Clarify for your students what good performance is (goals, criteria, and standards).

Define the expectation.

To what extent do students in your course have opportunities to engage actively with goals, criteria and standards, before, during and after an assessment task?

Types of Assessment [+ How to Use Them]

How do you use the different **types of assessment** in your classroom to promote student learning?

But testing can contribute to subject anxiety for many students. Assessments can be difficult to structure properly and time-consuming to grade.

There's so much more to assessments than delivering an end-of-unit exam or prepping for a standardized test. Assessments help shape the learning process at all points, and give you insights into student learning.

“Making assessment an integral part of daily Agriculture instruction is a challenge. It requires planning specific ways to use assignments and discussions to discover what students do and do not understand...**The insights we gain by making assessment a regular part of instruction enable us to meet the needs of the students who are eager for more challenges** and to provide intervention for those who are struggling.”

Assessment types a teacher can use are:

- Diagnostic assessments
- Formative assessments
- Summative assessments
- Ipsative assessments
- Norm-referenced assessments
- Criterion-referenced assessments
- Assertive assessment

What's the purpose of different types of assessment?

Different types of assessments help you understand student progress in various ways and adapt your teaching strategies accordingly.

In your classroom, assessments generally have one of three purposes:

1. Assessment *of* learning
2. Assessment *for* learning
3. Assessment *as* learning

Assessment of Learning

Assessments are a way to find out what students have learned and if they're aligning to curriculum or grade-level standards.

Assessments of learning are usually **grade-based**, and can include:

- Exams
- Portfolios
- Final projects
- Standardized tests

They have a concrete grade attached to them that communicates student achievement to teachers, parents, students, school-level administrators and district leaders.

Common Types of Assessment of Learning include:

- Summative assessments
- Norm-referenced assessments
- Criterion-referenced assessments

Assessment for Learning

Assessments for learning provide you with a clear snapshot of student learning and understanding *as you teach* -- allowing you to adjust everything from your classroom_management_strategies to your lesson plans as you go.

Assessments for learning should always be **ongoing and actionable**. When you're creating assessments, keep these key questions in mind:

- What do students still need to know?
- What did students take away from the lesson?
- Did students find this lesson too easy? Too difficult?
- Did my teaching strategies reach students effectively?
- What are students most commonly misunderstanding?
- What did I most want students to learn from this lesson? Did I succeed?

These assessments aren't only for students -- they're to provide you with actionable feedback to improve your instruction.

Common types of assessment for learning include formative assessments and diagnostic assessments.

Assessment as Learning

Assessment as learning **actively involves students** in the learning process. It teaches critical thinking skills, problem-solving and encourages students to set achievable goals for themselves and objectively measure their progress.

They can help engage students in the learning process, too

Some examples of assessment as learning include ipsative assessments, self-assessments and peer assessments.

There's a time and place for every type of assessment.

1. Diagnostic assessment

Let's say you're starting a lesson on effects of soil erosion. To make sure the unit goes smoothly, you want to know if your students have mastered fact the concept of soil erosion and types of erosion before you move on to more complicated questions.

When you structure **diagnostic assessments** around your lesson, **you'll get the information you need to understand student knowledge and engage your whole classroom.**

Some examples to try include:

- Mind maps
- Flow charts
- KWL charts
- Short quizzes
- Journal entries
- Student interviews
- Student reflections
- Graphic organizers
- Classroom discussions

Diagnostic assessments can also help benchmark student progress. Consider giving the same assessment at the end of the unit so students can see how far they've come!

2. Formative Assessment

Just because students made it to the end-of-unit test, doesn't mean they've mastered the skill. **Formative assessments** help teachers understand learner/student learning while they teach, and adjust their teaching strategies accordingly.

Meaningful learning involves processing new facts, adjusting assumptions and drawing nuanced conclusions.

Formative assessments help you track how student knowledge is growing and changing in your classroom in real-time. While it requires a bit of a time investment — especially at first — the gains are more than worth it.

Some examples of formative assessments include:

- Portfolios
- Group projects
- Progress reports
- Class discussions
- Entry and exit tickets
- Short, regular quizzes
- Virtual classroom tools like [Socrative](#) or [Kahoot!](#)

When running formative assessments in your classroom, it's best to keep them **short, easy to grade and consistent**. Introducing students to formative assessments in a low-stakes way can help you benchmark their progress and reduce anxiety when a big test day rolls around.

Assignments assess your students on a particular skill with a set number of questions and can be differentiated for individual students or groups of students.

3. Summative Assessment

Summative assessments measure student progress as an assessment of learning and **provide data for you, school leaders and district leaders**.

They're cost-efficient and valuable when it comes to communicating student progress, but they don't always give clear feedback on the learning process and can foster a "teach to the test" mindset if you're not careful.

Plus, they're stressful for teachers.

But just because it's a summative assessment, doesn't mean it can't be engaging for students and useful for your teaching. Try creating assessments that deviate from the standard multiple-choice test, like:

- Recording a podcast
- Writing a script for a short play
- Producing an independent study project

No matter what type of summative assessment you give your students, keep some best practices in mind:

- Keep it real-world relevant where you can
- Make questions clear and instructions easy to follow
- Give a rubric so students know what's expected of them
- Create your final test after, not before, teaching the lesson
- Try blind grading: don't look at the name on the assignment before you mark it

4. Ipsative Assessments

How many of your students get a bad grade on a test and get so discouraged they stop trying?

Ipsative assessments are one of the types of assessment *as* learning that **compares previous results with a second try, motivating students to set goals and improve their skills.**

When a student hands in a piece of creative writing, it's just the first draft. They practice athletic skills and musical talents to improve, but don't always get the same chance when it comes to other subjects like math.

A two-stage assessment framework helps students learn from their mistakes and motivates them to do better. Plus, it removes the instant gratification of goals and teaches students learning is a process.

You can incorporate ipsative assessments into your classroom with:

- Portfolios
- A two-stage testing process
- Project-based learning activities

One study on ipsative learning techniques found that when it was used with higher education distance learners, it helped motivate students and encouraged them to act on feedback to improve their grades. What could it look like in your classroom?

5. Norm-Referenced Assessments

Norm-referenced assessments are tests designed to compare an individual to a group of their peers, usually based on national standards and occasionally adjusted for age, ethnicity or other demographics.

Unlike ipsative assessments, where the student is only competing against themselves, norm-referenced assessments **draw from a wide range of data points to make conclusions about student achievement.**

Types of norm-referenced assessments include:

- IQ tests
- Physical assessments
- Standardized college admissions tests like the SAT and GRE

Proponents of norm-referenced assessments point out that they accentuate differences among test-takers and make it easy to analyze large-scale trends. Critics argue they don't encourage complex thinking and can inadvertently discriminate against low-income students and minorities.

Norm-referenced assessments are most useful when measuring student achievement to determine:

- Language ability
- Grade readiness
- Physical development
- College admission decisions
- Need for additional learning support

While they're not usually the type of assessment you deliver in your classroom, chances are you have access to data from past tests that can give you valuable insights into student performance.

6. Criterion-Referenced Assessments

Criterion-referenced assessments compare the score of an individual student to a learning standard and performance level, independent of other students around them.

In the classroom, this means measuring student performance against grade-level standards and can include end-of-unit or final tests to assess student understanding.

Outside of the classroom, criterion-referenced assessments appear in professional licensing exams, high school exit exams and citizenship tests, where the student must answer a certain percentage of questions correctly to pass.

Criterion-referenced assessments are most often compared with norm-referenced assessments. While they're both valuable types of assessments of learning, criterion-referenced assessments don't measure students against their peers. Instead, each student is graded on their own strengths and weaknesses.

How to Create Effective Assessments

When it comes to your teaching, here are some best practices to help you identify which type of assessment will work and how to structure it, so you and your students get the information you need.

Make a Rubric

Students do their best work when they know what's expected of them and how they'll be marked. Whether you're assigning a cooperative learning project or an independent study unit, a rubric **details the exact requirements students must meet to get a specific grade.**

Ideally, your rubric should have a detailed breakdown of all the project's individual parts, what's required of each group member and an explanation of what would be poor, passable, good or excellent work.

A well-crafted rubric lets multiple teachers grade the same assignment and arrive at the same mark. It's an important part of assessments for learning and assessments of learning, and teaches students to take responsibility for the quality of their work.

Ask yourself *why* you're giving the assessment

While student grades provide a useful picture of achievement and help you communicate progress to school leaders and parents, the ultimate goal of assessments is to improve student learning.

Ask yourself questions like:

- What's my plan for the results?
- Who's going to use the results, besides me?
- What do I want to learn from this assessment?
- What's the best way to present the assessment to my students, given what I know about their progress and learning styles?

This helps you effectively prepare students and create an assessment that moves learning forward.

Don't stick with the same types of assessment — mix it up!

End-of-unit assessments are a tried and tested (pun intended) staple in any classroom. But why stop there?

Let's say you're teaching a unit on crop production. To help you plan your lessons, deliver a diagnostic assessment to find out what students remember from last year. Once you're sure they understand all the prerequisites, you can start teaching your lessons more effectively.

After each agric class, deliver short exit tickets to find out what students understand and where they still have questions. If you see students struggling, you can re-teach or deliver intervention in small groups.

Once you're sure every student has mastered the skill, deliver an end-of-unit test. If one or two students do poorly, you can offer one-on-one support and give them a chance to improve their grades.

Build a review based on the data you've collected through diagnostic, formative, summative and ipsative assessments so they perform well on their standardized tests.

Final thoughts about different types of assessment

Remember: the learning process doesn't end once students put down their pencils at the end of the test.

It's an ongoing process, with plenty of opportunities for students to build a growth mindset and develop new skills.

Why Assess Student Knowledge?

Can you imagine a school without tests? Some students might be filled with joy at the thought of such a thing. Traditional assessments, like tests, have gotten a bad name due to their tendency to cause stress in students.

Why should students take tests anyway? Is it important to assess student knowledge at all?

Consider a student who never misses a class, but has no idea what is going on in the class. Because this student is shy, he often doesn't speak up and the teacher doesn't know he is confused. By the end of the term, he has not retained anything from the course and the teacher has no idea. What is the point of education if a student does not learn anything? How can a teacher know that a student is learning?

Assessments are tools used to measure student knowledge. They are an important part of the educational process because they show students are progressing towards goals set in each class. When students

struggle, assessments help teachers identify their struggle and support them to succeed in acquiring knowledge. Assessments ensure that curriculum guidelines are being met and students are progressing appropriately through standard material.

There are two main methods to assess student knowledge over time: diagnostic assessments paired with summative assessments (pre- and post-tests) and formative assessments.

Diagnostic and Summative Assessments

Often, students need to take a **diagnostic assessment** to determine their starting level in particular areas of education. Diagnostic assessments are common in early childhood education subjects such as math, English, and reading. Diagnostic assessments are typically traditional multiple choice/short answer type tests offering the students an opportunity to show their ability in an area before learning begins. Other forms of diagnostic testing are performance based, in which a student is asked to perform a task (such as reading a passage, computing a math equation, or building a model) that relates to the subject area. The results are recorded for later review.

When you think of assessment, often the traditional end of term final exam comes to mind. This might also be an end of unit exam to assess what is known about the subject. **Summative assessments** are assessments that come at the end of a period of time to assess the student's knowledge. Traditionally, summative assessments have been similar to diagnostic assessments.

Teachers are beginning to move away from using strictly **objective assessments** (multiple choice and fill in the blank) with absolute right/wrong answers to more **subjective testing** (like essays, open-ended questions, performance based assessments) that allow students leeway in how they explain their knowledge to the teacher. In either case, summative assessments come at the end of learning and are intended to assess what the student has learned through the learning process. The question becomes, did the student learn the material during the learning process or did the student already have the knowledge prior to beginning the learning process?

This brings us to the first main method for assessing knowledge over time. By comparing diagnostic assessments to summative assessments, teachers can identify exactly what knowledge was gained during the time period under investigation (this might be a unit of study or an academic year). In some cases, the summative assessment is identical to the diagnostic assessment, thus the phrase 'pre- and post- testing'. In other cases, the diagnostic and summative assessments are different, but still assess the same knowledge base.

The method of comparing diagnostic and summative assessments allows teachers to identify knowledge gained over a period of time based on two snapshots of the student's progress. It doesn't show the stages of learning, when the learning occurred, or if there were any leaps in understanding along the way.

Assertive Assessment

Assertiveness is a skill regularly referred to in social and communication skills training.

Being assertive means being able to stand up for your own or other people's rights in a calm and positive way, without being either aggressive, or passively accepting 'wrong'.

Assertive individuals are able to get their point across without upsetting others, or becoming upset themselves.

Although everyone acts in passive and aggressive ways from time to time, such ways of responding often result from a lack of self-confidence and are, therefore, inappropriate ways of interacting with others.

What is Assertiveness?

The Concise Oxford Dictionary defines assertiveness as:

“Forthright, positive, insistence on the recognition of one's rights”

In other words:

Assertiveness means standing up for your personal rights - expressing thoughts, feelings and beliefs in direct, honest and appropriate ways.

It is important to note also that:

By being assertive we should always respect the thoughts, feelings and beliefs of other people.

Those who behave assertively always respect the thoughts, feelings and beliefs of other people as well as their own.

Assertiveness concerns being able to express feelings, wishes, wants and desires appropriately and is an important personal and interpersonal skill. In all your interactions with other people, whether at home or at work, with employers, customers or colleagues, assertiveness can help you to express yourself in a clear, open and reasonable way, without undermining your own or others' rights.

Assertiveness enables individuals to act in their own best interests, to stand up for themselves without undue anxiety, to express honest feelings comfortably and to express personal rights without denying the rights of others.

Passive, Aggressive and Assertive

Assertiveness is often seen as the balance point between passive and aggressive behaviour, but it's probably easier to think of the three as points of a triangle.

Being Assertive

Being assertive involves taking into consideration your own and other people's rights, wishes, wants, needs and desires.

Assertiveness means encouraging others to be open and honest about their views, wishes and feelings, so that both parties act appropriately.

Assertive behaviour includes:

- Being open in expressing wishes, thoughts and feelings and encouraging others to do likewise. See our page on [Managing Emotions](#).
- Listening to the views of others and responding appropriately, whether in agreement with those views or not. See our page on [Active Listening](#).
- Accepting responsibilities and being able to delegate to others. See our page on [Delegation Skills](#) for more.
- Regularly expressing appreciation of others for what they have done or are doing. See our page on [Gratitude and Being Grateful](#).
- Being able to admit to mistakes and apologise.
- Maintaining self-control. See our page on [Self-Control](#) for more.
- Behaving as an equal to others. See our page on [Justice and Fairness](#) to explore further.

Some people may struggle to behave assertively for a number of reasons, and find that they behave either aggressively or passively instead.

.Being Passive

Responding in a passive or non-assertive way tends to mean compliance with the wishes of others and can undermine individual rights and self-confidence.

Many people adopt a passive response because they have a strong need to be liked by others. Such people do not regard themselves as equals because they place greater weight on the rights, wishes and feelings of others. Being passive results in failure to communicate thoughts or feelings and results in people doing things they really do not want to do in the hope that they might please others. This also means that they allow others to take responsibility, to lead and make decisions for them.

Being Aggressive

By being aggressive towards someone else, their rights and self-esteem are undermined.

Aggressive behaviour fails to consider the views or feelings of other individuals. Those behaving aggressively will rarely show praise or appreciation of others and an aggressive response tends to put others down. Aggressive responses encourage the other person to respond in a non-assertive way, either aggressively or passively.

How to Measure Assertiveness

❖ Rathus Assertiveness Schedule (RAS)

The Rathus Assertiveness Scale (RAS) was designed to measure a person's level of assertiveness. It is also an instrument for measuring behavioural change in assertion training. The RAS provides a score and a percentile for interpretation