FOUNDATIONS OF EDUCATION

FOR TTCs

STUDENT'S BOOK

OPTIONS: SME, SSE, LE&ECLPE

TTC-YEAR 2

FOREWORD

Dear Student teacher,

Rwanda Education Board is honoured to present the Foundations of Education textbook for Year Two. It was designed based on the revised curriculum to support its implementation. This textbook includes pedagogy and psychology related topics that will equip you with basic knowledge, skills and attitudes that you need to cater for learners of different ages and needs and effectively implement the Competence-Based Curriculum in Pre-primary and Primary schools. The Foundations of Education textbook will help you to gain required competences to meet teacher profession standards that are: teacher as educator, communicator and connector, guide, organizer and facilitator, innovator, researcher and reflective practitioner.

The textbook is made of 14 units designed in a way that facilitate self-study. Each unit starts with a key unit competence which represents abilities you are expected to have by the end of the unit. This competence will be built progressively throughout the unit. The key unit competence is followed by an introductory activity that you are requested to attempt before any other contact with the content under the unit. The unit is then broken down into different sub-topics to help you to go step by step. Each sub-topic starts with an activity in which you are requested to engage. The content that follows each sub-topic is a summary that gives you clear definitions of concepts and explanations to complement what you have acquired through learning activities. At the end of each unit, there are assessments tasks/activities that give you an opportunity to demonstrate the level of achievement of the key unit competence.

For effective use of this textbook, your role is to:

- Participate and take responsibility for your own learning: you are encouraged to engage in given activities to develop cooperation, communication, critical thinking, innovation and problem-solving skills.

- Share with your classmates, relevant information through presentations, discussions, group works, videos, visits, lesson observations, field visits, group discussions, presentations, brainstorming, role plays, case studies, interpretation of illustrations, research etc.

- Conduct further research to enrich information provided under each topic.

- Draw conclusions based on the findings from the learning activities.

Enjoy learning "*The Foundations of Education*" using your book!

Dr. NDAYAMBAJE Irénée

Director General of Rwanda Education Board

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MURUNGI Joan,

Head of Curriculum Teaching and Learning Resources Department/REB

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UNIT 1

PEDAGOGICAL DOCUMENTS

Key unit competence: Make a variety of pedagogical documents properly

Introductory Activity

1. Have a visit to the nearest pre-primary & primary school and collect information about pedagogical documents:

   a) what are they?

   b) How often they are filled in and how (observe some sample)?

   c) What is their importance?

   d) What is the link between them?

   e) Why are they important?

2. After the school visit, consolidate the information collected and share with your classmates.

1.1. Introduction to pedagogical documents

Activity 1.1

1. Based on information collected, who are the users of pedagogical documents?

2. What are the documents that you are already able to prepare and use from year one?

There is a number of pedagogical documents a professional teacher in Rwanda should have in class and use adequately. Many of them are prepared by the teacher based on documents that are designed at national level. The main documents are: Copies of subject syllabi, scheme of work, lesson plan, class diary, attendance register, Assessment notebook for homework, test, exams

and marking scheme and marks record. Some of these documents such as lesson and syllabi were taught and used from year one during micro-teaching sessions. This textbook will therefore be limited to the remaining documents.

Pedagogical documents are used by the teacher for long- and short-term planning, implementation and evaluation of the teaching and learning process. They meant to make teaching and learning more organised and effective.

These documents are also used by educational supervisors at different level ranging from the school up to the national level, to monitor the implementation of the curriculum.

Application Activity 1.1

Based on information collected, explain how pedagogical documents are important for both teachers and educational supervisors.

1.2. Scheme of work

1.2.1. Definition and importance of scheme of work

Activity 1.2.1

Read the scheme of work given by the tutor and discuss the importance of scheme of work for the teacher.

Definition

A scheme of work is a plan of action which enables a teacher to organise teaching activities ahead of time. It is summarizes forecast of work which the teacher considers adequate and appropriate for the class, to cover in a given period. The scheme of work organises the learning content in a timely manner according to the school calendar and based on the subject syllabus/curriculum. It determines the content and competences to be covered in a week, a month, a term or a year.

Importance of the scheme of work

A well-prepared scheme of work among other things:

- Gives an overview of the course content for a specific period such as week, a term, or a year.

- Indicates period or time when each unit and lesson will be taught
- Provides a logical sequencing of units and related competences on one hand and lessons within a unit on the other hand.
- Help the teacher to identify ahead of time the required teaching and learning resources (material and human). This help to think and plan for their provision.
- Suggests key teaching methods and techniques be planned.
- Indicates time when end unit assessment and exams will take place
- Suggests assessment techniques and procedures

1.2.2. Format of a scheme of work for primary level

Activity 1.2.2

Read the scheme of work given by the tutor and identify components of a scheme of work and the content of each component.

Academic year: ……….. Term: ………… School: ………………………….

Subject: ………………. Teacher's name: ………… Class&Combination: …………

Number of periods per week: ………

Dates (weekly)	Unit number and title	Lesson number and title	Learning objectives + Key unit compe- tence	Teaching methods & tech- niques + Assess- ment pro- cedures	Resourc- es & Ref- erences	Number of peri- ods	Obser- vations/ Remarks
From….. to……	Unit 1: ……….	Lesson 1:…………..	Learning objective (s)				
From….. to……	Unit 1	Lesson 2:…………..	Learning objective (s)				

From..... to......	Unit 1	Lesson 3:.............	Learning objective (s)				
From..... to......	Unit 1	Lesson 4:.............	Learning objective (s)				
From..... to......	Unit 1	End unit assessment 1	Key unit competence	Assessment techniques and procedures			
From..... to......	Unit 2	Lesson 1:	Learning objective (s)				
From..... to......	Unit 2	Lesson 2:	Learning objective (s)				
From..... to...	Unit 2	End unit assessment 2	Key unit competence	Assessment techniques and procedures			
From..... to......	Unit 3	Lesson 1:	Learning objective (s)				
From..... to......	Unit 3	Lesson 2:	Learning objective (s)				
	Unit 3	End unit assessment 3	Key unit competence	Assessment techniques and procedures			
From..... to......	Unit 1,2,3,...	Summative assessment: EXAMS	**Key unit competence 1, 2,3,...**	Assessment techniques and procedures for exams			

Source: Adapted from REB (2015): Teacher training manual: Rooll out of the Competence-Based Curriculum

The above format is for primary and for one term. Here below are explanations of the different elements of the format:

- **Identification:** Academic year, school name, teacher's name, class/ classes and combinations, term, subject, number of periods allocated to the subject per week.

- **Column of dates:** using the school calendar, the teacher puts dates of working days week per week. Example: From 5/08 up to 9/08/2019.

- **Column of unit title:** From the syllabus

- **Column of lesson title:** the lesson title can be copied from the syllabus or the teacher's guide or formulated by the teacher based on the content and the learning objectives from the syllabus. A lesson is a learning unit that can be taught in one period or more. Lessons result from the sequencing of the unit content.

- **Column of learning objectives:** the learning objectives can be copied and pasted from the syllabus or the Teacher's Guide or reformulated for more coherence with the content. Objectives must be specific, measurable, achievable and corresponding to a lesson.

- At the end of each unit, this column contains the **key unit competence** which serves as reference for end unit assessment.

- **Column of Teaching methods & techniques**: The teacher think about the best teaching methods and techniques. Some techniques/methods that require extra financial resources, administrative requirements such as field visit, need to be planned and budgeted for. At the end of each unit, this column contains also the assessment techniques/ procedures to be used during the end unit assessment.

- **Column of resources (**material and/or human) that will be needed to achieve the learning objective. This will help the teacher and the school Head Teacher to plan for their provision. This column contains also the key **references** to be used during lesson planning. References include books, handouts, worksheets, journals, reports, etc. It is necessary for the teacher to indicate the books, their authors and relevant pages to facilitate the lesson planning.

- **Column of "number of periods":** in this column, the teacher puts the number of periods allocated to each lesson and unit.

- **Column of remarks:** remarks in the scheme of work should be made immediately after the lesson delivery. (date when taught). The teacher is supposed to indicate whether what was planned for the period has been covered, whether there was over planning or failure of lesson and reasons for either case, etc. Remarks suggested are meant to help the teacher in his future planning.

  Remarks such as "excellent" "done; "OK", "well done", "satisfactory" or "taught might not be very useful to the teacher. Such remarks as "the lesson was not very well done because of inadequate teaching aids" or "pupils were able to apply concept learnt in solving problems as evident from supervised practice" etc. are appropriate. After the remarks, it is necessary to write the date when this lesson was taught.

Application Activity 1.2.2

Based on the format, identify the required documents to elaborate the scheme of work.

1.2.3. Making a scheme of work for primary level

Activity 1.2.3

1. Analyze a completed scheme of work and assess whether this is well completed. Suggest corrections if necessary.

2. What do you think would be the steps for planning a scheme of work?

Step 1: Units distribution per term

Based on the school calendar, the subject syllabus and the number of periods allocated to the subject per week, the teacher:

˗ Determines the number of available periods in a school year for each;

˗ Makes a distribution of units for each term.

Example: For a school year of 39 weeks, a subject of 1 period per week which has 9 units in total, the unit distribution would be as follows:

Term	Unit number and title	Number of periods
Term 1	Unit 1: ……………………………………	4
	Unit 2: ……………………………………	4
	Unit 3: ……………………………………	4
Term 2	Unit 4:……………………………………	5
	Unit 5: ………………………………..…	4
	Unit 6: ………………………………..…	6
Term 3	Unit 7:……………………………………	4
	Unit 8: ………………………………..…	4
	Unit 9: ………………………………..…	4
Total	**9 Units**	**39 periods**

Step 2: Unit planning

Using the syllabus, the teacher proceeds to the following unit by unit**:**

a) Identifying unit title and related allocated number of periods

b) Identifying the key unit competence

c) Identifying and arranging lessons in a logical manner

- Arrange lessons in a sequence / order in which they will be taught, from the simplest to the most complex.

- A lesson is a set of inseparable content which can help learners to acquire a certain competence. It can be taught in one or more periods.

d) Set out learning objectives for each lesson

- The teacher avoids to always directly copy them from the syllabus. He/ she should adapt those objectives from the syllabus;

- An element of Attitudes and values should always appear.

e) Identifying teaching and learning resources as well as relevant references for each lesson within the unit;

f) Identifying teaching and learning methods/techniques as well as assessment procedures within the unit;

g) Allocate periods to each lesson and the end unit assessment.

Step 3: Filling in the above identified/elaborated information in the scheme of work template.

Application Activity 1.2.3

1) Using the primary syllabus, based on the above guidelines, make a scheme of work and share with your classmate.

2) To implement the comprehensive assessment, REB designed the content distributions for all subjects to be followed by all schools. Choose a sample of the content distribution from REB website, compare with the scheme of work and answer the following questions:

a) What is the difference between the scheme of work and the content distribution?

b) Do you think that these content distributions can replace the scheme work? Explain.

1.2.4. Format of scheme of work for pre-primary (ECLPE option)

Application Activity 1.2.4

Compare and contrast pre-primary scheme of work from primary scheme of work template.

a) Introduction

Usually, a scheme of work is planned by a teacher at school level. Exception was for pre-primary to support teachers making a theme-based scheme of work. It was challenging for teachers to organize the learning around one theme without a common plan countrywide. The elaborated scheme of work will help teachers in the weekly thematic planning.

The scheme of work was elaborated based on thirty-nine weeks (39) as planned in competence-based curriculum. The school year is divided into three terms and each term has thirteen (13) weeks even though the reality shows that the school calendar does not necessarily have thirteen weeks per term. This is why

it is strongly recommended that teachers make required adjustments to the official school calendar.

b) Structure of Pre-primary scheme of work (*Isaranganyamasomo ryo mu mashuri y'inshuke , 2018*)

The scheme of work elaborated by REB is designed per learning area as follows:

- Discovery of the world
- Numeracy
- Ikinyarwanda
- English
- Creative Arts and culture
- Physical development and Health

The structure of the scheme of work of a learning area is organized per grade, per term and per week as follows:

- Each learning area is organized per grade level: Grade 1, 2, and 3.
- Each grade shows the content, competences to be covered per term
- Each term is broken down into weekly thematic planning.

c) Format of a theme-based scheme

The format below applies for learning areas whose content is mainly generated from the theme. These are: Kinyarwanda, English and creative arts and culture. The thematic planning is mandatory for these learning areas. All themes are from Discovery of the world. The thematic learning should always start by discovery of the world for children to explore using their senses. In so doing, their will create and express their feelings (songs, poems, drawings,..) about what they know.

Icyumweru	Insanganya-matsiko	Inyigisho	Umutwe	Ubushobozi bugamijwe	Ikigwa	Imfasha-nyigisho	Ikitonderwa
1	Gusubiramo ibyizwe mu gihembwe gishize						
2							
3							
4							
5							
6							
7	Gukora raporo igaragaza intambwe umwana agezeho no gufata ingamaba						
8							
9							
10							
11							
12 &13	Gukora raporo igaragaza intambwe umwana agezeho no gutegura ibirori bisoza igihembwe						

d) Format of scheme of work for Discovery of the world, Numeracy, and Physical development and health

The scheme of work of Discovery of the world, Numeracy, and Physical development and health is not necessarily thematic. The thematic planning will be done by teachers themselves where possible, when making the weekly thematic planning. In fact, for some learning areas other approaches can be better than the thematic one, to develop expected competences. For example: in Numeracy, for children to classify objects based on a given criterion, they need many objects of different kind instead of being limited on objects that are related to the weekly theme.

Example of format of scheme of work for term two and three

Icyumweru	Inyigisho	Umutwe	Ubushobozi bugamijwe	Ikigwa	Imfashanyigisho	Ikitonderwa
1	Gusubiramo ibyizwe mu gihembwe gishize					
2						
3						
4						
5						
6						
7	Gukora raporo igaragaza intambwe umwana agezeho no gufata ingamaba					
8						
9						

10						
11						
12 &13	*Gukora raporo igaragaza intambwe umwana agezeho mu mpera z'igihembwe*					

f) Explanation on the formats of the scheme of work

- The **two first weeks of term one**, are planned for induction related activities and diagnostic assessment for screening children abilities. It is expected that children may start pre-primary not only in grade one but also in grade two and three.

- **The first week of term two and three** is planned for revision of contents learnt in previous term(s).

- **The mid-term week** is reserved for making a progress report to assess the child's progress and take appropriate strategies in line with continuous assessment principles.

- **The two last weeks of each term** are reserved for making an end term report which shows a child's progress.

- The remaining weeks of term are planned for teaching and learning activities

- There is one theme in the same week for all learning areas where thematic planning applies.

NOTE: All themes have been drawn-from discovery of the world, but teaching based on those themes does not mean teach discovery of the world. Teachers should take the theme as a way of developing competences in different learning areas.

Application Activity 1.2.4

Using the pre-primary scheme of work, choose one week from any grade and check if all learning areas turn around the same theme in the same week. What do you conclude?

1.2.5. Making a thematic weekly planning for pre-primary

Activity 1.2.5

Read and analyse the thematic web diagram and the weekly plan from the REB training module (*Imfashanyigisho y'amahugurwa ku nteganyanyigisho y'uburezi bw'inshuke*, 2016). Based on your prerequisites from Pre-primary Teaching Methods and Practice (TMP) in year one and Foundations of Education in year one about thematic approach, answers the following questions:

1) What are the required documents to make a thematic web diagram?

2) What is the importance of the web diagram in making the weekly plan?

3) What are the key parts of the weekly plan?

4) What are the required documents to make a weekly plan?

Steps for making a thematic planning using the pre-primary scheme of work

Pre-primary teachers to prepare a weekly thematic planning using the scheme of work. Here below are steps to go through:
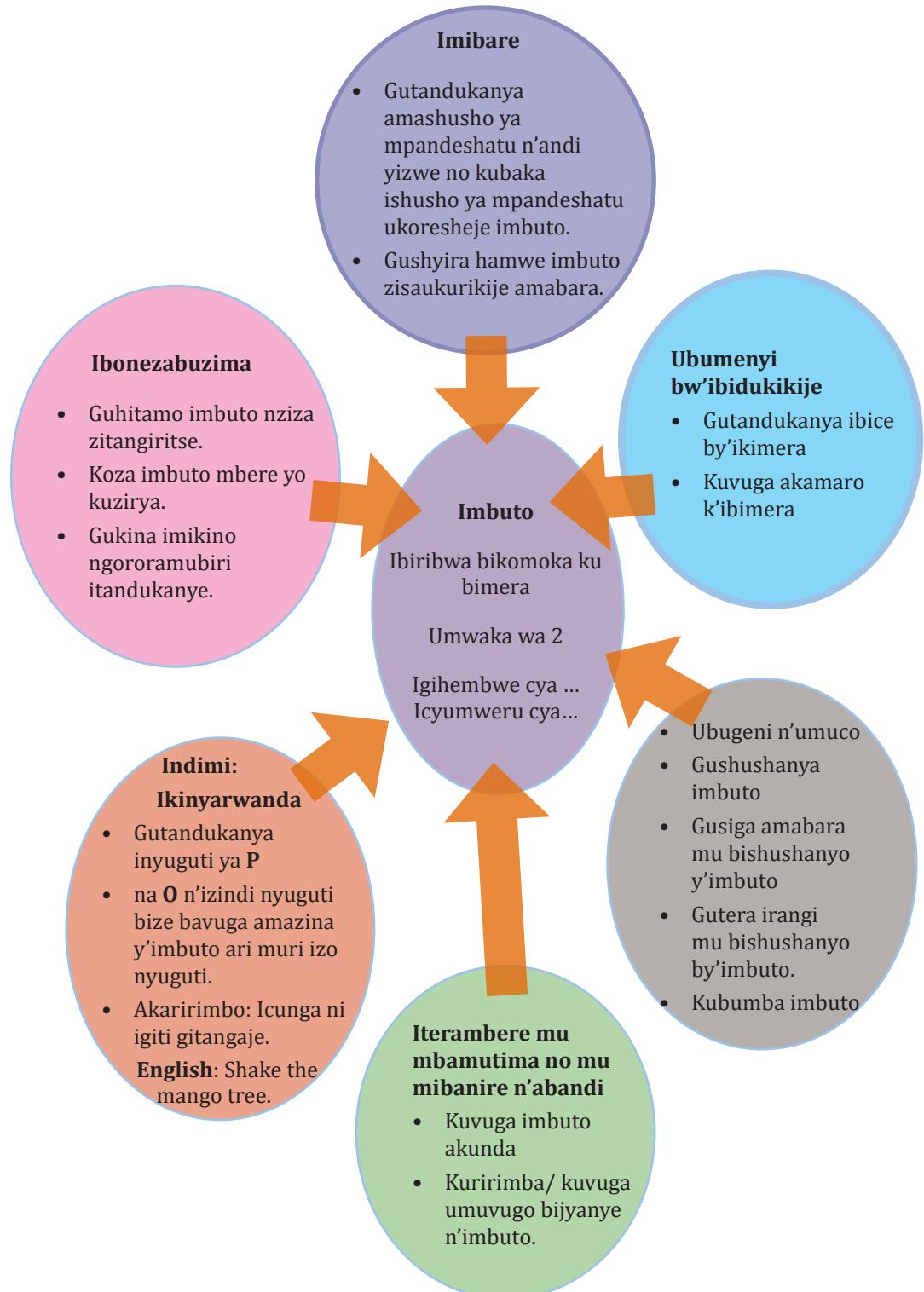
Step 1: Making a thematic web planning

Using the syllabus, the scheme of work, considering the grade, term and week number, the teacher proceeds as follows:

Example: Week X

- Identify the weekly theme for week x from the scheme of work

- For each learning area, identify the content and learning objectives planed for week x, in a given grade and term

- Make a thematic web planning to have an overview on what will be taught around the theme of the week.

Examples of a thematic web planning

Imibare
- Gutandukanya amashusho ya mpandeshatu n'andi yizwe no kubaka ishusho ya mpandeshatu ukoresheje imbuto.
- Gushyira hamwe imbuto zisaukurikije amabara.

Ibonezabuzima
- Guhitamo imbuto nziza zitangiritse.
- Koza imbuto mbere yo kuzirya.
- Gukina imikino ngororamubiri itandukanye.

Ubumenyi bw'ibidukikije
- Gutandukanya ibice by'ikimera
- Kuvuga akamaro k'ibimera

Imbuto
Ibiribwa bikomoka ku bimera

Umwaka wa 2

Igihembwe cya …
Icyumweru cya…

- Ubugeni n'umuco
- Gushushanya imbuto
- Gusiga amabara mu bishushanyo y'imbuto
- Gutera irangi mu bishushanyo by'imbuto.
- Kubumba imbuto

Indimi: Ikinyarwanda
- Gutandukanya inyuguti ya **P**
- na **O** n'izindi nyuguti bize bavuga amazina y'imbuto ari muri izo nyuguti.
- Akaririmbo: Icunga ni igiti gitangaje.
  English: Shake the mango tree.

Iterambere mu mbamutima no mu mibanire n'abandi
- Kuvuga imbuto akunda
- Kuririmba/ kuvuga umuvugo bijyanye n'imbuto.

Example 2

The central hub reads "My body (1 week)" with arrows connecting to surrounding circles:

Numeracy
Measurement – Weight, Length, capacity and size Compare (two objects) size of shoes, feet hands, height of children, weight of children.

Physical development and Health
Gross and fine motor movements - Gross Motor Movement
Experiment different Movements using learnt body parts
Fine Motor Movement
Use fingers to mold clay when making model

Discovery of the world
People and communities – My family
Talk about main parts of the body (head, arms, legs, feet, stomach, knees and shoulders)

Language and Literacy – Kinyarwanda – Oral comprehension and expression
- Listening and Speaking
Listen to, sing and follow instructions with the song – Iyo, Yohana aceza umutwe

English – Oral comprehension and expression
– Listening and Speaking
Listen to, sing and follow instructions with the song head, shoulders, knees and toes

Creative
Arts and Culture Visual Arts – Modelling
Make a model of yourself from clay

Music, dance and culture – Familiar songs and dances
Sing familiar songs from the home, sing head, shoulders, Knees and toes.

Personal, Social and Emotional Development
Approaches to learning – Initiative and curiosity
Explore materials and activities during corner play

Step 2: Making a thematic weekly plan using the format

The weekly plan is elaborated in order to put the termly plan into practice. In formulating it, consideration should be given to the continuity of life of the children, because we generally spend our daily life on a weekly basis. Here below is the format for the thematic weekly plan. It is done based on the daily schedule to include all daily learning activities

Thematic weekly Planning format

School's Name: _____Teacher's Name: _____

Date	Term	Grade	Class	Class size	Theme	Weekly theme	Types of SEN and number of learners:

Time	Type of activity in the daily schedule	Key learning area	Other learning areas	Learning Objective	Teacher's activities	Learner's activities	TLMs

7:30-8:00	Welcome Time	Personal, Social and Emotional Development					
8:00	**Circle Time**	Language and Literacy					
8:20	**Circle Time**	Discovery of the world					
8:50	**Corner Play**	All					
9:40	**Tidy up time**	Personal, social and emotional development					
9:50	Snack Time						
10:10	**Outdoor Play**	Physical development and gross motor skills					
10:40	**Story Time**	Language and Literacy					
11:00	**Circle Time**	Numeracy					
11:30-11:40	**Review and wrap up**	Personal, emotional and social development					

Using the syllabus, the scheme of work, the pre-primary daily schedule and the thematic web planning (made in step 1) for the week the teacher is planning for and any other useful resource, he/she fills in the weekly plan format as follows:

- Write the key learning area from the thematic web planning for each types of activity in the daily schedule

- Identify other learning areas that can be integrated. Example: Being in the key learning area of literacy (Kinyarwanda), a story can develop numeracy skills depending on its content. In this case Numeracy will be in the column of other learning areas. This is appropriate for pre-primary, there is no clear cut between learning area.

- Set out the learning objective having in mind the key unit competence

- Identify the teacher's and related learning activities

- Create a list of teaching and learning resources that you will need for the week. When creating your list, write down the resources that are available in the classroom, those that are to be collected, made, purchased, etc.

Application Activity 1.2.5

1) Using the pre-primary scheme of work, choose one week from a grade and term of your choice and make a thematic web diagram.

2) From the thematic web diagram you came up with, make a weekly plan according to the format.

1.2.6. Daily plan for pre-primary

Ativity 1.2.6

Read and analyse the weekly and related daily plans from the REB training module (*Imfashanyigisho y'amahugurwa ku nteganyanyigisho y'uburezi bw'inshuke*, 2016). Answer the following question:

What is your conclusion about making a daily plan based on the weekly plan?

Format of a daily schedule

Date: ………….   Weekly theme:…………………………………………

Time	Activity	Learning objectives	Learning Activities	Teaching and learning resources	Comments
7:30-800	Welcome time				
8:00-8:20	Language and Literacy circle				
8:20-8:50	Discovery of the world circle				

8:50-9:40	Corner play				
9:40-9:50	Tidy up time				
9:50-10:10	Snack time				
10:10-10:40	Outdoor play				
10:40-11:00	Story time				
11:00-11:30	Numeracy circle				
11:30-11:40	Closing circle				

Source: Adapted from REB (2016): Imfashanyigisho y'amahugurwa ku nteganyanyigisho y'uburezi bw'inshuke

1.3. Other pedagogical documents

Ativity 1.3

1) List down other documents that you have been shown by the teachers when you were at the demonstration school for observation.

2) Based on information collected from the model school, explain the importance and how to fill in the following documents:

a) Class diary

b) Attendance register

c) Marks records

a) Class diary

The class diary is a daily planning tool. It is completed every day before lessons except the last column of observation which is filled in after each lesson. The teacher uses the school timetable and the lesson plans for all lessons for the day. The format of the class diary provide space for the following:

- **Date**
- **Time**: From which time to which time the lesson is going to take place.
- **Subject**: This refers to the subject name (eg: English, Mathematics,...)
- **Matter**: Put the unit title
- **Lesson**: Lesson title of the day (from the lesson plan).
- **Application**: Put the assessment technique that will help to evaluate whether the learning objective was achieved.
- **Observations**: this column is completed immediately after the lesson and contains evaluation remarks related to the effectiveness of teaching and learning techniques and resources. Comments such as "Done", "Very good", "OK", are not appropriate. It is very important to explain the reasons of success or failure such as the lesson was not well done because of inadequate teaching aids or the teaching strategies were adequate.

b) Attendance/ Call register

On daily basis, the teacher keeps a record of pupils' attendances and absences. He/she calculates the total number of attendances every day and their percentage at the end of the month. The teacher must inform regularly the school authorities, especially the school Head teacher of unjustifiable class absences. This tool helps teachers to ensure pupils' follow up on their attendances. The teacher must be in touch with parents and be informed about reasons of absence to ensure the pupils' learning process.

c) Learners progress records/ Marks records

The learners' progress records show the learners' achievements in every piece of work that is assessed (homework, test, exams.). They are designed to show the progress each learner is making in every subject. The records may be numerical or descriptive notes explaining the progress of the learner.

d) Evaluation book and marking scheme

This a notebook or a file in which a teacher writes papers of homework, tests, exams and related marking scheme.

Application Activity 1.3

1) Using lesson plans you have prepared for micro-teaching in year one, complete a template of class diary.

2) Using a completed page of attendance register provided by your tutor, calculate the average of class attendance at the end of a month.

3) Explain why it is important to keep students 'marks record.

End Unit Assessment

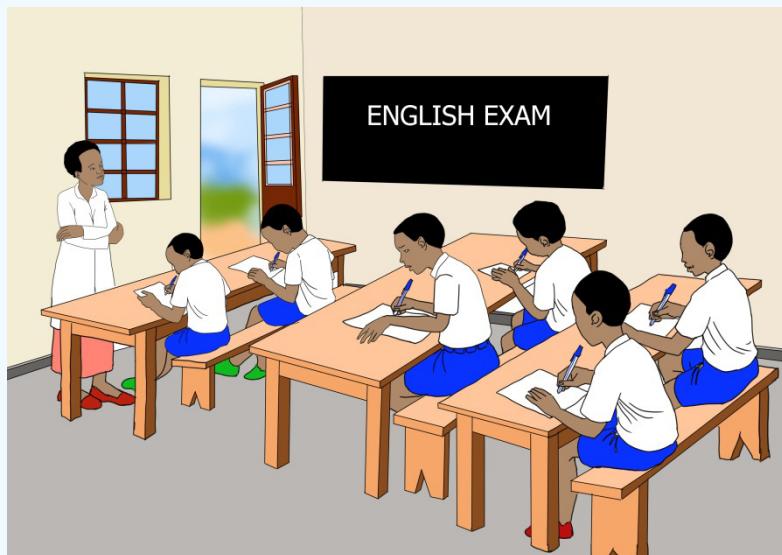During the supervision, you have been requested by the Head teacher to submit all pedagogical documents.

a) Outline any two reasons why the Head Teacher needs to check all pedagogical documents?

b) What documents do you think the supervisor will focus on? Justify your answer with at least two arguments.

c) Choose any two pedagogical documents from the ones studied in this unit and complete them.

UNIT
2

PEDAGOGICAL ASSESSMENT

Key Unit competence: Select appropriate assessment methods/ techniques and create relevant assessment tools to assess learners' competences.

Introductory Activity

Observe the image above and answer the questions that follow:

1) What those pupils are doing?

2) What is the purpose of this activity?

3) Comparing to your experience, when this activity is given to pupils?

4) What do you think the teacher has done before the activity and what will be done next?

5) Apart from the teacher and learners seen on the photo, what are other persons do you think they can be involved in this activity? What will be their role?

2.1. Key concepts related to pedagogical assessment

Activity 2.1

1) Discuss the assessment and then complete the KWL chart, in the column of What you Know (K) about assessment and the column of what you Want (W) to know about assessment. The third column will be completed later.

K (What you Know)	W (Want to know)	L (Learnt)
-	-	

2) Using internet research, try to find the information about what you want to know (**W**)

a) Assessment

This is regarded as those formal and informal procedures that teachers and learners employ in gathering information on learning and making judgment about what learners know and can do. As opposed to the misconception most people have always had that assessment comes after teaching, assessment is an integral part of teaching and learning.

b) Competence-based assessment

This is an assessment process in which a learner is confronted with a complex situation relevant to his/her everyday life and asked to look for a solution by applying what has been learned (knowledge, skills, competences and attitudes). Evidence of learning is then collected and used as the basis on which judgments are made concerning learner's progress against fixed performance criteria.

c) Competence-Based assessment versus Knowledge-Based assessment

Knowledge-Based assessment	Competence-Based assessment
The assessment is after a period of time through tests or exams of pen and paper.	The assessment is an integral part of the learning process and takes place all the time by informal or formal methods.
The assessment is norm-referenced for the purpose of ranking or selection mainly.	The assessment is mainly criterion-referenced for the purpose of evaluating and measuring what learners are able to demonstrate.
Records show only naked scores or grades without indicating what the learners have demonstrated.	Records with clear statements about competence achievement are necessary for feedback.

d) Difference between assessment and evaluation

Educators use two distinct processes to help students build lifelong learning skills: assessment and evaluation. Assessment provides feedback on knowledge, skills, attitudes, and work products for the purpose of elevating future performances and learning outcomes. Evaluation determines the level of quality of a performance or outcome and enables decision-making based on the level of quality demonstrated. These two processes are complementary and necessary in education.

The significant differences between assessment and evaluation are discussed in the points given below:

- The process of collecting, reviewing and using data, for the purpose of improvement in the current performance, is called assessment. A process of passing judgment, on the basis of defined criteria and evidence is called evaluation.

- Assessment is diagnostic in nature as it tends to identify areas of improvement. On the other hand, evaluation is judgmental, because it aims at providing an overall grade.

- The assessment provides feedback on performance and ways to enhance performance in future. As against this, evaluation ascertains whether the standards are met or not.

- The purpose of assessment is formative, i.e. to increase quality whereas evaluation is all about judging quality, therefore the purpose is summative.

- Assessment is concerned with process, while evaluation focuses on product.
- In an assessment, the feedback is based on observation and positive & negative points. In contrast to evaluation, in which the feedback relies on the level of quality as per set standard.
- In an assessment, the relationship between assessor and assessee is reflective, i.e. the criteria are defined internally. On the contrary, the evaluator and evaluatee share a prescriptive relationship, wherein the standards are imposed externally.
- The criteria for assessment are set by both parties jointly. As opposed to evaluation, wherein the criteria are set by the evaluator.
- The measurement standards for assessment are absolute, which seeks to achieve the essential outcome. As against this, standards of measurement for evaluation are comparative, that makes a distinction between better and worse.

The above points are summarized in the table below:

Basis for comparison	Assessment	EVALUATION
Meaning	Assessment is a process of collecting, reviewing and using data, for the purpose of improvement in the current performance.	Evaluation is described as an act of passing judgement on the basis of set of standards.
Nature	Diagnostic	Judgemental
What it does?	Provides feedback on performance and areas of improvement.	Determines the extent to which objectives are achieved.
Purpose	Formative	Summative
Orientation	Process Oriented	Product Oriented
Feedback	Based on observation and positive & negative points.	Based on the level of quality as per set standard.
Relationship between parties	Reflective	Prescriptive
Criteria	Set by both parties jointly.	Set by the evaluator
Measurement Standards	Absolute	Comparative

Before carrying out assessment, teachers should be clear about why they should assess, what should be assessed, when it should be assessed and how to do the assessment. This will depend on types of assessment.

2.2. Types of pedagogical assessment

2.2.1. Types of assessment according to the assessment time

a) Diagnostic assessment

Diagnostic assessment is carried out before learning. At the beginning of a new section of work; to find out what learners already know and can do, and to check whether learners are at the same level.

b) Formative assessment

Formative assessment is daily monitoring of learning to provide ongoing feedback that teachers can use to improve their teaching and learners use to improve their acquisition of competences. **Formative** or **Continuous assessment** is among other things, intended to help teachers to assess curriculum learning objectives at short intervals of time, and provide effective remedial instruction for low achiever learners, or enrichment activities for high achievers. When learners appear to be having difficulty with some of the work, by using on-going assessment. Formative assessment is also known as **assessment for learning**.

Formative assessment is used for the following purposes:
- Determine the extent to which learning objectives and competences are being achieved and to identify which schools need pedagogical advice and which learners need strategic and remedial interventions.
- Monitor the learner's progress and provide him/her with constructive feedback.
- Diagnose or detect learning errors as a result of a wrong idea, or a misconception.
- Decide on the next steps in terms of progression.
- Keep records and measure the learner's progress.
- Identify learners who are gifted and talented in order to provide enrichment work; and those who are struggling and need support in terms of remedial instruction.
- Motivate learners to learn and succeed, i.e, encourage learners to read, or learn more, revise, etc. Teachers need to consider various aspects of the instructional process including appropriate language levels, meaningful examples, suitable methods and teaching aids, appropriate pace, appropriate assignments, etc.
- Check effectiveness of teaching methods in terms of variety, appropriateness, relevance, or need for new approaches/strategies.
- Provide feedback to learners, parents and teachers.
- Help learners to take control of their own learning.

c) Summative assessment

Summative assessment is used to evaluate learner learning, skill acquisition, and academic achievement at the completion of a defined instructional period, such as the end of a project, unit, course, term, school year and cycle. This is also known as **assessment of learning** to establish and record overall progress of learners towards full achievement.

Summative assessment mainly takes the form of written tests at the end of month, and examinations at the end of a term, school year or cycle.

 The purpose of summative assessment is mainly concerned with appraisal of work in terms of units of work completed, and attempts to ascertain if goals of the unit, course or program have been achieved. It therefore comes at the end of the unit, course or program. Summative assessment is also used for selection, guidance on future courses, certification, promotion, curriculum cotrol, and accountability.
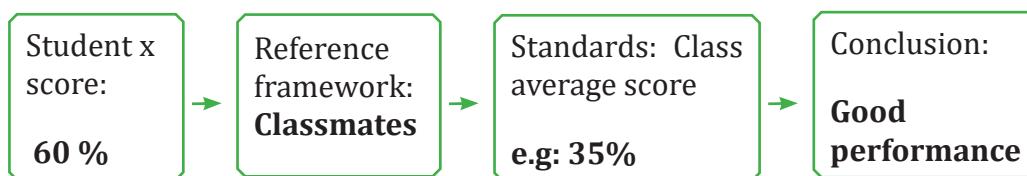
2.2.2. Types of assessment according to the reference framework to interpret assessment results

a) Norm-referenced assessment

Norm-referenced assessment measures a student's performance in comparison to the performance of a group of peers (norm group) on the same assessment.

Example: The student "X" scored 60% in the end unit assessment and was the 7th out of 46 students. Moreover, while comparing the student "X" scores to the class average that is 35 %, Teacher "M" concluded that student "X" performed well based on the rank and the fact that he/she scored above the class average.

From this example, Student "X" score was compared to the classmates scores through the ranking and the class average. The diagram below summarises the interpretation process:

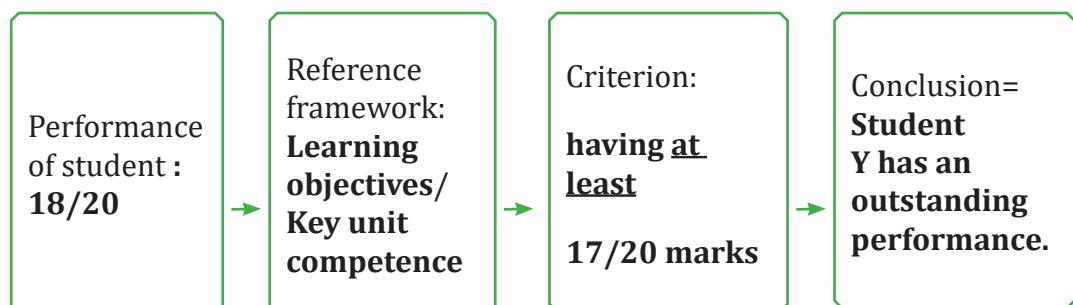| Student x score: 60 %	→	Reference framework: **Classmates**	→	Standards: Class average score e.g: 35%	→	Conclusion: **Good performance**

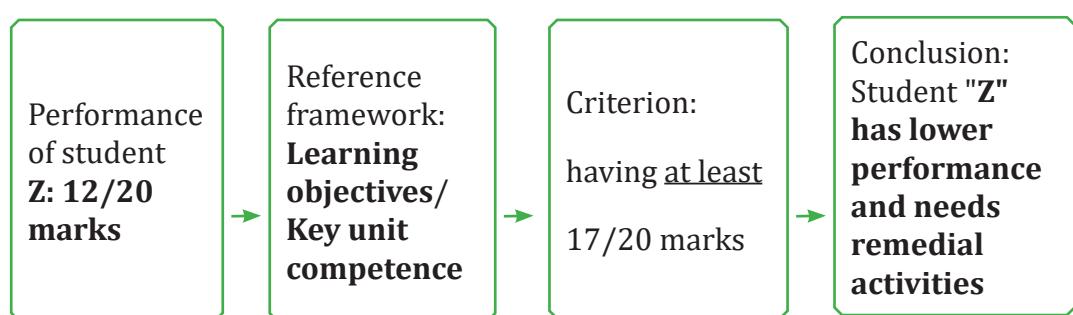### b) Criterion-referenced assessment

Criterion-referenced assessment Measures a student's performance based on mastery of specific skills, competences. It measures what the student knows/

can do and doesn't know/cannot do at the time of assessment. The student's performance is NOT compared to other students' performance. Each student's performance is measured based on a predetermined performance criterion.

Example 1: Interpretation of student "Y" performance

| Performance of student : **18/20** | → | Reference framework: **Learning objectives/ Key unit competence** | → | Criterion: **having at least** **17/20 marks** | → | Conclusion= **Student Y has an outstanding performance.** |

Example 2: **Interpretation of student Z performance**

| Performance of student **Z: 12/20 marks** | → | Reference framework: **Learning objectives/ Key unit competence** | → | Criterion: having at least 17/20 marks | → | Conclusion: Student "**Z" has lower performance and needs remedial activities** |

As shown by the above examples, criterion-based assessment helps to identify students who mastered a learning unit and those who need remedial activities to achieve the standard.

Requirements: This assessment requires a learning objective with clear performance standard and valid assessment tool (exam) to measure that performance.

2.2.3. Type of assessment depending on the examiner

a) Classroom or internal assessment

Classroom assessment, sometimes called internal assessment, refers to assessments designed or selected by teachers and given as an integral part of classroom instruction. They are given during or closely following an instructional activity or unit. This category of assessments may include

teacher-student interactions in the classroom, observations, student products that result directly from ongoing instructional activities, called "Immediate assessments", and quizzes closely tied to instructional activities, called "Close assessments". They may also include formal classroom exams that cover the material from one or more instructional units, called "proximal assessments". This category may also include assessments created by curriculum developers and embedded in instructional materials for teacher's use.

Classroom assessment is viewed as an active process of systematically collecting and analyzing student learning evidence in order to make effective educational decisions, which are designed to promote student learning.

Classroom assessment is also defined as a set of strategies, techniques, and procedures that teachers and students engage in, to collect, evaluate, and report student achievement. It is a tool teachers use to gather data and information about how students are progressing in what they know and in the development of their skills. Classroom assessment is used for a variety of purposes – to document what students know and can do, diagnose strengths, weaknesses, and misunderstandings, improve and enhance student learning, motivate students, assign grades, and provide feedback to parents.

b) External assessment

External assessment refers to assessment designed, or selected, marked ad used by other people from outside of the student's school such as sector, districts, national or international level. It is typically used to audit or monitor learning. External assessments are usually more distant in time and context from instruction. They can be based on the content and skills defined in national curriculum/syllabus, but they may not necessarily reflect the specific content that was covered in any particular classroom depending on purposes. They are typically given at a time that is determined by school administrators, rather than by the classroom teacher.

1. Complete by an appropriate type of assessment

- ....is done before learning to find out what learners already know and can do, and to check whether the learners are at the same level.

- ....are designed or selected at the districts level or national level to monitor learning.

- ....is daily monitoring of learning to provide ongoing feedback that teachers can use to improve their teaching and learners use to improve their acquisition of competences.

- ....measures a student's performance against a predetermined set of criteria.

- ....are used to evaluate learner learning, skill acquisition, and academic achievement at the conclusion of a defined instructional period, such as the end of unit, term, school year or cycle.

2. Considering the given educational stakeholders (Head teacher, class teacher, parent, student, District Education Officer):

a) Identify what types of assessment they are interested in?

b) What does the person want to know and what will the person do with the information from assessment?

2.3. Principles of pedagogical assessment

Think of the exam done lastly and describe what you have appreciated about it if any. If not, what did you dislike about that exam and why?

Pedagogical assessment is based on different principles; some are described below:

- **Assessment should bring about benefits for learners and support the learning process**

To warrant conducting assessments, there must be a clear benefit- either direct service to the learner or in improved quality of educational programs. All assessment tasks influence the way in which students approach their learning, and this will be considered in the design of all assessment tasks.

- **Assessment should be tailored to a specific purpose and should be valid and fair for that purpose**

Assessment will be explicitly designed to measure student achievement of the intended learning objectives, competences. Measures should be taken during the whole assessment process to ensure fairness.

- **Assessment should be age-appropriate in both content and methods of data collection**

Assessment of young children should address the full range of early learning and development, including physical well-being and motor development; social and emotional development; approaches towards learning; language development; and cognition and general knowledge. Methods of assessment should recognize that children need familiar contexts in order to be able to demonstrate their abilities.

- **Assessment should be linguistically appropriate**

Regardless of whether an assessment is intended to measure early reading skills, knowledge of colour names, or learning potential, assessment results are easily confounded by language proficiency, especially for children who come from home background with limited exposure to English or any other foreign language which is used as a medium of instruction, for whom an assessment would essentially be an assessment of their language proficiency. First and second languages of learners should be considered when setting assessment tasks.

- **Parents should be a valued source of assessment information as well as an audience for assessment results**

Assessment should include multiple sources of evidence, especially reports from parents and teachers. Assessment results should be shared with parents as part of an ongoing process that involves parents in their children's education.

- **Assessments should be equitable, inclusive and fair, supporting all students.**

Thus, technical issues are important to consider for all assessments, including those that occur each day in the classroom. Assessment needs to take account of the diverse needs of students, to be equitable with regard to gender, disability, background language and socio-economic status and not discriminate on grounds that are irrelevant to learning.

- **Assessment should be explicit and fair**

Prior to undertaking any assessment task, students should be clearly informed on the purpose and requirements of the task and should be provided with the specific assessment criteria that should be used for marking it. Feedback to students should be related to the stated learning objectives and specific assessment criteria. Clear information on the policies and processes relating to assessment should be easily available to all involved in the assessment process.

- **Assessment should be an integral part of teaching and learning**

Assessments should arise naturally out of the teaching and intended learning of the curriculum. They should be carefully constructed to enable judgments to be made about students' progress in ways that contribute to ongoing learning.

Teachers need to consider planning for assessment as well as planning for teaching. This preparation should include planning how they will draw on their own observations and planning for summative assessments. Teachers also need to consider how they will refine their teaching programs based on the information they collect.

- **Assessment should lead to informative reporting**

Reporting happens at the end of a teaching cycle and should provide an accurate summary of the formative and summative assessment information collected for each student. The purpose of reporting is to provide feedback to students, parents, and teachers. The information is also valuable for school and system-wide planning. It is important that, in addition to providing an accurate summary of student performance, the judgements of student achievement are reliable.

- **Assessment should lead to school-wide evaluation processes**

Highly effective schools pay particular attention to teachers' qualitative and quantitative data and standardized test data. Teachers and school leaders need to understand current and past student achievement levels, be explicit about targets for improvement and about how progress towards those targets will be monitored. School leaders need to plan for how they will evaluate the effectiveness of school initiatives and programs. Teachers should plan for how they will reflect on and evaluate their teaching practices. This implies that schools and teachers need to be willing to identify and evaluate both the intended and unintended consequences of any initiative or program.

Application Activity 2.3

Take a copy of Year One end-year exam (subject: FOE), analyze it and say if the one who set it respected the principles of assessment. If you were asked to set it, what do you think you could have done differently?

2.4. Assessment tools

Activity 2.4

Based on your experience since primary school, demonstrate the ways teachers used to assess your learning.

2.4.1. Interview

Interview consists of a series of well-chosen questions that are designed to elicit a portrait of a student's understanding about different concepts/topics. The interview may be videotaped or audiotaped for later analysis.

During a structured interview, the student may be asked to use their own words to explain an idea but is typically required to go beyond simple recognition of a concept to construct a detailed personal explanation. Generally, the student is also asked to use that concept to solve a problem or other application task. Additional questions may be added in response to the answers given. It is this freedom to follow the interviewee, to ask for clarifications, and to focus on errors, misconceptions, and gaps in knowledge, that makes the interview so much more fruitful.

The interview should begin with a focus question that requires application of the concept to be investigated without forcing the student into an explicit definition. Specific definitions of the concept, if needed, should be sought only after understanding the student's response to the focusing question. It is important for the interviewer to wait some seconds after each prompt before trying to interpret the question or ask another.

Purpose of interview
- To investigate how well one understands and can apply a concept;
- To identify gaps in understanding that may be common among students;
- To document the general and content-specific procedures that students employ in application tasks and the sequences and way processes are employed;
- To document how student understanding and problem-solving skills change over time or with instruction;
- To obtain verbal feedback from students about course structure, teaching techniques, and other aspects of the course or program of instruction.

2.4.2. Portfolios

Student portfolios are a collection of evidence to demonstrate mastery, comprehension, application, and synthesis of a given set of concepts. The evidence can be presented in a three-ring binder, a multimedia tour, or a series of short papers. A unique aspect of a successful portfolio is that it also contains explicit statements of self-reflection. Statements accompanying each item describe how the student went about mastering the material, why the presented piece of evidence demonstrates mastery, and why mastery of such material is relevant to contexts outside the classroom.

The overall goal of the preparation of a portfolio is for the learner to demonstrate and provide evidence that he or she has mastered a given set of learning objectives. More than just thick folders containing student work, portfolios are typically personalized, long-term representations of a student's own efforts and achievements. Whereas multiple-choice tests are designed to determine what the student doesn't know, portfolio assessments emphasize what the student does know.

2.4.3. Rubrics

Rubrics are a way of describing evaluation criteria based on the expected outcomes and performances of students. Typically, rubrics are used in scoring or grading written assignments or oral presentations. They may be used, however, to score any form of student performance. Each rubric consists of a set of scoring criteria and point values associated with these criteria. In most rubrics, the criteria are grouped into categories so the instructor and the student can discriminate among the categories by level of performance.

Purpose of rubrics
- To improve the reliability of scoring written assignments and oral presentations;
- To convey goals and performance expectations of students in an unambiguous way;
- To convey grading standards or point values and relate them to performance goals;
- To engage students in critical evaluation of their own performance.

2.4.4. Observation

Teachers have always watched and observed students in the classroom, and they have made instructional decisions based on these observations. Observations can take place in a variety of settings. They can focus on student performance, attitude and value during a single activity or during routine classroom activities.

After deciding **what** to observe, **when** to observe, and **how often** to observe, teachers will need to plan how to record their observations. Observations which go unrecorded in some way will not be as easily defensible to students, parents, and administrators, and may be forgotten over time.

2.4.5. Checklist

A checklist is a tool for identifying the presence or absence of conceptual knowledge, skills, or behaviours. Checklists are used for identifying whether key tasks in a procedure, process, or activity have been completed. The tasks may be a sequence of steps or include items to verify that the correct sequence was followed. Teachers may need to observe the tasks being followed because, in general, they cannot judge what tasks the learner did from the end product. A checklist may also be given to students to follow in completing a procedure (e.g., in a lab). A checklist enumerates task descriptions in one column and provides a space beside each item in a second column to check off the completion of the task.

Characteristics of checklists

- Have criteria for success based on expected outcomes
- Be short enough to be practical (e.g., one sheet of paper)
- Have tasks chunked into logical sections or flow from start to finish
- Highlight critical tasks
- Have sign-off points that prevent students from proceeding without approval, if needed
- Be written with clear, detailed wording to minimize the risk of misinterpretation
- Have space for other information such as the student's name, date, course, examiner, and overall result
- Be reviewed by other instructors

Example of a checklist

- **Expected learning outcome**: The student will write instruction objective that has a measurable action verb at the highest appropriate level given a "verb-level" list.

- **Criteria for success**: All questions must be answered "Yes".

Writing Learning Outcomes	Yes	Non
Does each objective include an action verb?		
Is only one action verb used in each objective?		
Is each objective measurable?		

Is each objective written in terms of what the learner does, not what the instructor does?		
Is each objective clear from the learner's perspective?		

2.4.6. Project work

Project work is a product which requires a learner to plan, carry out, and make a project presentation which is then assessed by the teacher or by peers.

2.4.7. Questioning

- **Oral questioning**: a process which requires a learner to respond verbally to questions.

- **Class exercise**: tasks that are given during the learning/ teaching process.

- **Quiz**: short and informal questions usually asked during a lesson.

- **Homework and assignments**: tasks assigned to learners by their teachers to be completed outside of class. Common homework assignments may include a quantity or period of reading to be performed, writing, problems to be solved, a school project to be built (display), or other skills to be practiced.

Qualities of good questions

Good question items should be:
- Clear, simple and straight forward,
- Short and precise,
- Free of bias,
- Readable,
- Original,
- Indicate marks for each question
- Follow order of difficulty (Blooms)
- Contain a variety of verbs

2.4.8. Rating scales

A rating scale is a tool used for assessing the performance of tasks, skill levels, procedures, processes, qualities, quantities, or end products, such as

reports, drawings, and computer programs. Rating scales are like checklists except that they indicate the degree of accomplishment rather than just yes or no. Rating scales list performance statements in one column and the range of accomplishment in descriptive words, with or without numbers, in other columns. These other columns form "the scale" and can indicate a range of achievement, such as from poor to excellent, never to always, beginning to exemplary, or strongly disagree to strongly agree.

Characteristics of rating scales

- Have criteria for success based on expected outcomes
- Be clearly defined, detailed
- Have statements that are cut into logical sections or flow sequentially
- Include clear wording with numbers when a number scale is used as an example, when the performance statement describes a behaviour or quality, 1 = poor through to 5 = excellent is better than 1 = lowest through to 5 = highest or simply 1 through 5.
- Have specific, clearly distinguishable terms
- Be short enough to be practical
- Highlight critical tasks or skills
- Indicate levels of success required before proceeding further, if applicable
- Sometimes have a column or space for providing additional feedback
- Have space for other information such as the student's name, date, course, examiner, and overall result
- Be reviewed by other instructors

Examples of rating scales

- **Rating scale example 1:** Tools handling assessment
  - **Expected learning outcome**: The student will select the proper tool for each task and use it skilfully and safely.
  - **Criteria for success**: all skills must be performance "Average" or better

Skill	Unacceptable	Poor	Average	Good	Very Good	Excellent	Comments
	0	1	2	3	4	5	
Selects the proper tool							

Uses the tool skilfully						
Uses the tool safely						

- **Rating scale example 2:** Presentation
  - **Excepted learning outcome:** The students will give a presentation of their group work
  - **Criteria for success:** only one item is rated less than "slightly agree"

Presentation Skill	Strongly disagree	Disagree	Slightly disagree	Slightly agree	Agree	Strongly agree
His/her voice was clearly heard						
His/her tone of voice was varied						
The pace was appropriate						
The language level was appropriate						
The content concise						

2.4.9. Exhibition/ demonstration

In education, the term **exhibition** refers to projects, presentations, or products through which students "exhibit" what they have learned, usually as a way of demonstrating whether and to what degree they have achieved expected **learning standards** or **learning objectives**. An exhibition is typically both a learning experience in itself and a means of evaluating academic progress and achievement.

Defining *exhibition* is complicated by the fact that educators use many different terms when referring to the general concept, and the terms may or may not be used synonymously from place to place. For example, the terms *capstone exhibition*, *culminating exhibition*, *learning exhibition*, *exhibition of learning*, *performance exhibition*, *senior exhibition*, or *student exhibition* may be used,

in addition to *capstone, capstone experience, capstone project, demonstration of learning, performance demonstration*, and many others. Educators may also create any number of home-grown terms for exhibitions.

In contrast to worksheets, quizzes, tests, and other more traditional approaches to **assessment**, an exhibition may take a wide variety of forms in schools:

- Oral presentations, speeches, or spoken-word poems
- Video documentaries, multimedia presentations, audio recordings, or podcasts
- Works of art, illustration, music, drama, dance, or performance
- Print or online publications, including websites or blogs
- Essays, poems, short stories, or plays
- Galleries of print or digital photography
- Scientific experiments, studies, and reports
- Physical products such as a models, sculptures, dioramas, musical instruments, or robots

2.4.10. Learning journal

Learning journal is a collection of notes, observations, thoughts and other relevant materials built-up over a period of time and may be a result of a period of study/learning. Its purpose is to enhance your learning through the process of writing and thinking about your learning experience. **Why to use it?**

We use learning journal to cater for the following:

- To demonstrate how your learning is developing,
- To help to identify your strengths and weaknesses for improvement of preferences in learning.
- To help you to be reflective about your learning.

Learning journal is also called:
- Learning log
- Personal development plan (PDP)
- Field work diary

It should be a notebook. In learning journal, learners should set targets when they are in reflection.

> ## Application Activity 2.4
>
> Create a checklist to assess reading ability for a P4 child.

2.5. Paper setting

> ## Activity 2.5
>
> Discuss the main points that a teacher should consider before and when setting questions for examination.

2.5.1 Considerations in preparing tests

Teachers need to build skills in developing exams that are fair, reliable, and valid. The following kinds of considerations are important in developing or preparing exams.

- **Selecting specific areas of the curriculum**

Exams are samples of behaviours. When skills are being assessed, all components of the domains should be selected and assessed. When more complex domains are assessed, teachers should concentrate on the more important facts or relationship and avoid the trivial.

- **Writing relevant questions**

Teachers must select and use enough questions to allow valid inferences about students' mastery of short-term and long-term goals, and attainment of state standards. Fairness demands that the way in which the question is asked be familiar and expected by the student.

- **Organizing and sequencing items**

The organization of exams is a function of many factors. When teachers want a student to complete all the items and to indicate mastery of content, it is best to combine easy and difficult items. When the desire is to measure automaticity or the number of items that can be completed within a specific time period, it is best to organize from easy to difficult. Pages of exam questions should not be in disorder.

- **Developing formats for presentation and response modes**

Different response formats can be used within the same exams, although it is generationally a good idea to group together questions with the same format. Regardless of the format used, the primary consideration is that the exam questions be a fair sample of the material being assessed.

- **Writing directions for administration**

The directions indicate clearly what a student must do (eg: circle the correct option). Also, teachers explain what, if any, materials may be used by students, any time limits, any unusual scoring procedures (eg: penalty for guessing).

- **Developing systematic procedures for scoring responses**

Teachers should have pre-determined and systematic criteria for scoring responses. However, if a teacher discovers an error or omission in criteria, the criteria should be modified. Obviously, previously scored responses must be rescored with the revised criteria.

- **Establishing criteria to interpret student performance**

Teachers should specify in advance the criteria they will use for assigning grades or weighting assignments. In either case, they must specify what it takes to earn certain grades or how assignments will be evaluated and weighted.

2.5.2. Response formats

Activity 2.5.2

Consider the given questions below. Identify the characteristics for each section.

FOUNDATIONS OF EDUCATION EXAM

YEAR 2, ALL OPTIONS

Section I: Circle the correct answer

1. Educational psychologists attempt to discover except:
    a. The extent to which the factors of heredity and environment contribute to learning.
    b. The nature of the learning process
    c. The organism that live in aquatic environment only
    d. The nature of the child

2. The following are challenges facing Rwandan education system except

   a. Increasing access to all levels of education
   b. Improving quality of education
   c. Increasing number of computers in TTC RUBENGERA only
   d. Improving the relevance of education and addressing the labor market demand

3. The following are challenges facing Rwandan education system except

   a. Increasing access to all levels of education
   b. Improving quality of education
   c. Increasing number of computers in TTC RUBENGERA only
   d. Improving the relevance of education and addressing the labor market demand

4. One of the following shows the elements of didactic triangle

   a. Learner, learner and leaner
   b. Learner facilitator and the fascinator
   c. Learner, the knowledge and the teacher
   d. Teacher, and the content

5. The field of psychology that studies physical, perceptual, cognitive, and psychosocial changes across the life span is known as _____ psychology.

   a. Cognitive
   b. Evolutionary
   c. Developmental
   d. Clinical

6. The prenatal period that lasts from conception through the second week is the:

   a. *Embryonic stage*
   b. *Foetal stage*
   c. *Germinal stage*
   d. *Teratogen stage*

Section 2: Read the following statement and show if they are right or wrong by only writing TRUE or FALSE for each.

1. Educational psychology is not a science ………………………………

2. Educational psychology is like normative science………………………

3. Motivation in the classroom is not related to Maslow hierarchy of needs ………………

4. Encoding is the process by which sensory information gets into memory………………..

5. Intelligence is defined as the capacity to understand the world, think rationally, and use resources effectively when faced with challenges or new situation……………………

Section 3: Fill in with an appropriate type of assessment

1. …………………………..is done before learning to find out what learners already know and can do, and to check whether the learners are at the same level.

2. ……………………………..are designed or selected at the districts level or national level to audit or monitor learning.

3. ………………………………..is daily monitoring of learning to provide ongoing feedback that teachers can use to improve their teaching and learners use to improve their acquisition of competences.

4. ……………………….measures a child's performance against a predetermined set of criteria.

5. ………………………………are used to evaluate learner learning, skill acquisition, and academic achievement at the conclusion of a defined instructional period, such as the end of unit, term, school year or cycle.

Section 4: Match the type of learning to its meaning

Type	Meaning
1. Rote learning	a. This is the concept that learned knowledge (e.g., a fact) is fully understood to the extent that it relates to another knowledge
2. Meaningful learning	b. Is memorizing information so that it can be recalled by the learned exactly the way it was read or heard.
3. Informal learning	c. This type of learning occurs through the experience of day to day situations
4. Learning by insight	d. Learning assumes that people learn social behavior mainly through observation, mental processing of information and model what they observe.
5. Observational learning	e. *Is the sudden discovery of the solution to a problem without going through a series of progressive <u>trial and error</u>.*

Section 5: Attempt all questions

1. After you have defined learning, discuss any 4 internal psychological factors influencing it and respectively give two pedagogical conclusions for each.

2. Second to the definition, make a concept map of memory process.

3. Discuss SQ3R as a technique that help you to improve your memory.

A) Selection formats

Three types of selection formats are commonly used: **multiple- choice**, **matching** and **true- false**.

- **Multiple-choice questions**

Multiple-choice tests usually consist of a question or statement to which you respond by selecting the best answer from among a number of choices. Multiple-choice tests typically test what you know, whether or not you understand (comprehension), and your ability to apply what you have learned (application).

Multiple –choice questions are the most difficult to prepare. These questions have two parts: a (1) *stem* that contains the questions and (2) a response set that contains both correct answer, termed the **keyed response;** and one or more incorrect options, termed **distractors**.

In preparing multiple-choice questions, teachers should generally follow these guidelines:

- Keep the response options short and of approximately equal length. To eliminate length as a clue, the relative length of the correct answer is varied.

- Keep material that is common to all options in the stem.

- Avoid grammatical tip-off. All alternatives are grammatically consistent with the stem and parallel in form.

- Avoid implausible options. The distractors are reasonable and attractive to the uninformed.

- The stem of the item presents a single, clearly formulated problem.

- The stem is stated in simple, clear language.

- The stem is worded so that there is no repetition of material in the alternatives.

- The stem is stated in positive form wherever possible.

- If negative wording is used in the stem, it is emphasized in bold or by underlining.

- The intended answer is correct or clearly best.

- The alternatives are free from verbal clues to the correct answer.

- The alternative "all of the above" or "none of the above" are used only when appropriate.

- Avoid options that indicate multiple correct options. Make sure that one and only one option is incorrect.

- Avoid interdependent questions. Generally, it is bad practice to make the selection of the correct option dependent on getting a prior question correct.

- Avoid similar options. Students who can eliminate one of the two similar options can readily dismiss the other one.

- Make sure that one question does not provide information that can be used to answer another question.

- Avoid using the same words and examples that were used in the students' texts or in class presentations.
- Vary the position of the correct response in the options.

When appropriate, teachers can make multiple-choice questions more challenging by asking students to recognize an instance of a rule or concept, by requiring students to recall and use material that is not present in the question, or by increasing the number of options.

- **Matching questions**

Matching questions are a variant of multiple-choice questions in which a set of stems is simultaneously associated with a set of options. The content of matching questions is limited to simple factual associations. Teachers usually prepare matching questions so that there are as many options as stems, and options can be associated only once with a stem in the set.

The following are the guidelines to be considered when setting matching questions:

- Each set of matching items should have some dimensions in common.
- Keep the length of the stems approximately the same, and keep the length and grammar used in the options equivalent.
- Make sure that one and only one option is incorrect for each stem.
- Vary the sequence of correct responses when more than one matching question is asked.
- Avoid using the same words and examples that were used in the students' texts or in class presentations.
- The items are based on homogeneous material.
- The instructions clearly state the basis for matching and that each response can be used once, more than once, or not at all.

Matching questions are presented in two columns. Stems should be placed on the left and options on the right. Moreover, all the elements of the questions should be kept on one page. Finally, teachers often allow students to draw lines to connect questions and options. To complete a matching assessment activity, students must select one item from each of two columns. The two items must fit together correctly based on the assessment directions.

- **True-false questions**

True-false questions contain statements that the student marks as being either true or false. The utility of True- false lies primarily in assessing knowledge of factual information. Below, are suggestions to be followed by a teacher who chooses this format:

- Avoid specific determiners such as "all", "ever", "always" and so one.
- Avoid sweeping generalization. Such statements tend to be true, but students can often think of minor exceptions.
- Avoid complicated sentences. Exam should assess knowledge of content, not a student's ability to comprehend difficult prose. The statement is brief and stated in simple, clear language.
- Keep true and false statements approximately the same length.
- Balance true and false statements. There is approximately an equal number of true and false statements.
- Negative statements are used carefully and double negatives are avoided.
- The statements are free of clues to the answer (e.g. verbal clues, length).
- The true and false items are arranged in random order.

B) Supply formats

In supply formats we distinguish: ***fill-in questions, short- answer questions*** and ***essay questions***. Teachers should prepare criteria for a correct response at the time they prepare the question.

- **Fill-in questions**

Fill-in-the-blank items, also known as completion questions, provide students with a partial sentence or question and then require them to write the word (or words) in the blank that best completes the statement or question. Fill-in-the-blank and short-answer questions test learners' ability to recollect facts they have learned.

Fill-ins are useful in assessing knowledge and comprehension objectives; they are not useful in assessing application, analysis, synthesis, or evaluation objectives. Teachers preparing fill-in questions should follow these guidelines:

- Keep each sentence short.
- If a two-word answer is required, teacher should use two blanks to indicate this in the sentences.

- Avoid sentences with multiple blanks.
- Keep the size of all blanks consistent and large enough to accommodate reality the longest answer.
- Clues to the answer have been avoided (e.g. "a" or "an", length of the blank)

- **Short-Answer questions**

Short-answer questions or statements are like essay questions or open-ended questions, except they can be answered with just a few words or sentences. They test foundational knowledge which is usually factual. They require students to create an answer. When completing short-answer questions, it's important to pay attention to the directive words in each item. They are commonly used in examinations to assess the basic knowledge and understanding of a topic before more in-depth assessment questions are asked on the topic.

Some guidelines for setting short-answer questions.
- The item calls for a single, brief answer
- The item has been written as a direct question or a well-stated incomplete sentence
- The desired response is related to the main point of the item
- The units and degree of precision is indicated for numerical answers.

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.

- **Extended responses**

Extended questions are also known as **essay questions.** Essay questions require students to write answers to statements or questions. To complete a successful essay exam, students need to be able to recall relevant information and to organize it in a clear way, generating a thesis and building to a conclusion. Teachers give essay questions to determine whether or not students can make connections among various ideas, apply course information to new situations, and demonstrate that they have made the information their own.

Essay questions are most useful in assessing comprehension, application, analysis, synthesis, and evaluation objectives. To avoid subjectivity and inconsistency in essay questions, teachers should use a scoring key that assigns

specific point values for each element in ideal or criterion answer. Teachers should always be very precise in the directions or instructions that they give so that students will not have to guess what responses their teachers will credit.

Questions starting with "who", "what", "when", "where", "name", "list" are avoided as these terms limit the response. Questions demanding higher order skills, such as those indicated in the following table are characterised as essay questions.

Outcome	Sample Terms
Comparing	Compare, classify, describe, distinguish between, explain, outline, summarize
Interpreting	Convert, draw, estimate, illustrate, interpret, restate, summarize, translate
Inferring	Derive, draw, estimate, extend, extrapolate, predict, propose, relate
Applying	Arrange, compute, describe, demonstrate, illustrate, rearrange, relate, summarize
Analyzing	Break down, describe, diagram, differentiate, divide, list, outline separate
Creating	Compose, design, devise, draw, formulate, make up, present, propose
Synthesizing	Arrange, combine, construct, design, rearrange, regroup, relate, write
Generalizing	Construct, develop, explain, formulate, generate, make, propose, state
Evaluating	Appraise, criticize, defend, describe, evaluate, explain, judge, write

Note: Special considerations in assessing students with disabilities

When setting papers, teachers must pay attention to individual differences among students, particularly to disabilities that might interfere with performance. The following examples clarify this issue:

- Students who have skill deficits in remembering things for short periods of time may need multiple-choice tests with fewer distractors.

- Students who have difficulty with the organization of visually presented material may need to have matching questions rewritten as multiple-choice questions.

- Students who write very slowly can be expected to have difficulty with essay questions, they will need much more time than other.

The above examples show clearly that teachers should make sure that they have included the adaptation and accommodations required depending on the student special needs.

Teachers should remember that it is important to assess the skills that students have, not the effects of disability conditions.

2.5.3. Setting tasks for formative and summative assessment

Activity 2.5.3

Revise the Bloom taxonomy seen in Year One and indicate at which level you can classify the following questions:

- Define assessment.
- Explain the difference between formative assessment and summative assessment.
- Set questions for end-lesson assessment on prepositions in P1.
- Between multiple-choice questions and essay questions, which ones do you think are easy to answer? Explain
- Compare and contrast knowledge-based assessment and competence-based assessment.

a) Definition

Tasks are activities designed in the learning environment by the teacher in order to enable learners to develop and display their knowledge and understanding, and demonstrate the acquired skills, competences, attitudes and values.

b) Development of tasks: Use observable action verbs consistent with the level of learning expected, considering all the low, medium and higher order thinking skills and competences.

Examples of verbs used in setting tasks and criteria:

- **Low order** (knowledge and understanding): define, name, list, identify, label, match, outline. Eg: Label the parts of the flower indicated on the drawing provided.
- **Medium Order**: explain, describe, examine, classify, express, summarize, compute, relate, show, solve, use. Eg: Using a lens, examine the specimen provided and describe its external features.

- **Higher order**: compare, analyze, illustrate, differentiate, compose, construct, design, formulate, evaluate, justify, and interpret.

Example:
- Compare and contrast education system of Rwanda before and after 1994.
- You are provided with a dissection kit and a dead rat, dissect the rat longitudinally and draw what you see. Label the drawing with the function of each part.

c) Setting integration situations for summative assessment

Integration Situations are a tool that teachers and schools should use to evaluate learners' acquisition of competences at every level according to the National Assessment Standards.

The integration situation helps to highlight difficulties the learner has encountered while learning, as well as areas of strength and weakness, which the teacher can use to enhance methodology and tools (how to accomplish the tasks). No new knowledge, skills, attitudes or values should be introduced during the Integration Situations. It deals with the knowledge, skills, attitudes and values already acquired during the learning process (during the lessons).

Characteristics of Integration Situations
- The Integration Situation utilizes **acquired** content and competences and not any new content.
- The Integration Situation is task-oriented and significant. It is based on learners' everyday life context or for continuation of her/his study, social and professional goals. It is not limited to the school life.
- The Integration Situation refers to the problems that are specific to a given subject or a set of subjects whose parameters are specified.

Components of the integration situation
- **The Context/Content of the situation:** a set of materials available like the basic content which will help the learner accomplish the task and the context in which the task has to be performed
- **The Task:** The clear description of what the learner is expected to do in her/his Integration Situation.
- **Instructions:** A set of essential ideas to clearly guide the learner in accomplishing his/her task.
- **Marking Rubric**: A clear guideline of expected results for the given task.

Examples of integration situation

Example 1

An ECD week is being organized by key Ministries in collaboration with International and local Organizations working in ECD area. The launch will take place in one of the rural Districts. As an ECD expert you have been selected as one of the speakers during the launch and as a key resource person during the preparation of the launch. Your speech will focus on two main points: Benefits of ECD programs and the role of parents in early learning in a rural area. As part of the preparation of your speech:

a) Give 7 key messages on benefits of ECD programs (home-based and/or school based)

b) Give 4 convincing examples highlighting the parental support in early learning in both formal and informal settings.

c) Give names of 3 Ministries involved in organization of the ECD week. Explain briefly the roles and responsibilities of each Ministry in the implementation of ECD policy. (9 marks)

Example 2

The local leaders in Gakenke District in Northern Province are very concerned with the increasing occurrence of landslides, deep gullies that are now common in the area, flooding in valleys and destruction of crops and property. The land officers in the district are worried about the nature of land that is made up of unconsolidated (loose) soils. The district has had a number of intervention measures that include: afforestation, reforestation, and promoting better methods of farming. However, the problem is still worrying. The relief or nature of the landscape is described by steep slopes associated with scars left behind by numerous landslides during the rainy season. While other parts of the district have gentle sloping areas that are appreciated for having stable soil conditions. Local leaders have embarked on an environmental conservation campaign at the grass root level or in all villages. This has called for the training of the village representatives on the importance of environmental conservation.

The community leaders of your village (Umudugudu) have nominated or selected you to be part of the trainers at the district level.

1. Suppose the district land officer asks you to address the trainees:

a) Prepare how practically you would address the problem of landslides, severe soil erosion and flooding in your village.

b) Address one of the participants who asks the following question: "I planted trees but recently the whole land was affected by land slide."

2. In spite of the hard work and serious land conservation measures the district has used, still landslides are common as per the case study above.

a) Referring to the short story entitled "Save our mother Earth" how would you advise the land office of Gakenke District on how practically it is possible to solve the environmental concerns in the district.

b) Show how you would creatively use local available resources to assist local farmers to conserve natural resources.

2.5.4. Designing a marking scheme

Whether you are marking exam answers or students' assignments, the time spent making, a good marking scheme can save you hours when it comes to marking a pile of scripts. It can also help you to know (and show) that you are doing everything possible to be uniformly fair to all students. As you may be required to show your model answers to some people including external examiners and quality reviewers, it is important to design schemes in the first place so that they will stand up to such analysis.

The following suggestions should help:

- **Write a model answer for each question, if the subject matter permits.** This can be a useful first step towards identifying the mark-bearing ingredients of a good answer. If you have difficulties answering the questions, the chances are that your students will too! Making model answers and marking schemes for coursework assignments can give you good practice for writing exam schemes.

- **Make each decision as straightforward as possible.** Try to allocate each mark so that it is associated with something that is either present or absent, or right or wrong, in students' answers.

- **Aim to make your marking scheme usable by a non-expert in the subject.** This can help your marking scheme be useful resources for students themselves, perhaps in next year's programme.

- **Aim to make it so that anyone can mark given answers, and agree on the scores within a mark or two.** It is best to involve colleagues in your piloting of first-draft marking schemes. They will soon help you to identify areas where the marking criteria may need clarifying or tightening up.

- **Allow for 'consequential' marks.** For example, when a candidate makes an early mistake, but then proceeds correctly thereafter (especially in problems and calculations), allow for some marks to be given for the ensuing correct steps even when the final answer is quite wrong.

- **Pilot your marking scheme by showing it to others.** It's worth even showing marking schemes to people who are not closely associated with your subject area. If they can't see exactly what you're looking for, it may be that the scheme is not yet sufficiently self-explanatory. Extra detail you add at this stage may help you to clarify your own thinking, and will certainly assist fellow markers.

- **Look at what others have done in the past.** If it's your first time writing a marking scheme, looking at other people's ways of doing them will help you to focus your efforts.

- **Learn from your own mistakes.** No marking scheme is perfect. When you start applying it to a pile of scripts, you will soon start adjusting it. Keep a note of any difficulties you experience in adhering to your scheme and take account of these next time you have to make one.

2.5.5. Administration role during examination

The administration has a great role in making assessment effective. Below are enumerate some of its attributions:

- Preparing rooms for examinations
- Sitting arrangements (Creating seating plans)
- To provide a lead invigilation service including the provision of support and guidance   to other invigilators including the invigilation of examinations.
- Setting invigilation timetable
- Ensure copies are available in required quantities
- To maintain student files to agreed standards within the record management procedures.
- To record notifications of student absence and maintain the student absence reporting system.
- Creating examination entries
- Updating notice boards
- Assisting students with queries
- Packing examination scripts

Depending on your option, choose any topic from the pre-primary or primary syllabus, read the content material for that topic, set 10 questions to assess that topic and then set a marking scheme.

Tips for doing that activity successfully:
- Respect revised Bloom Taxonomy when setting questions.
- Consider the pupils' age
- Vary formats of questions.

2.6. Marking, records keeping and results analysis

Activity 2.6

Question1

Read the following scenario and answer the question that follows:

Butera and Dusenge teach P3. Butera teaches P3 A and Dusenge teaches P3 B. By the end of the unit, they give assessment that covers the whole unit. When marking Butera marks one by one question for all copies. Dusenge marks one copy, when he finishes marking all questions, he takes another copy.

- *Between Butera and Dusenge, who do you think has good practice of marking? Why?*

- *What do you think both teachers have done before, to make marking effective?*

Questions 2

Both teachers record marks after marking. Below, there are their marks records sheets.

Questions 2

Both teachers record marks after marking. Below, there are their marks records sheets.

P3 A: Class teacher: Butera				P3 B: Class teacher: Dusenge		
No	Pupil's name	Marks /20		No	Pupil's name	Marks /20
1	Amina Marie	14		1	Aheza Providance	16
2	Ihirwe Denyse	18		2	Amizero Andre	7
3	Ikuzwe Divine	15		3	Dukundane Goldien	14
4	ImanizabayoVenerande	11		4	Dusabimana Vincent	18
5	Iradukunda Claire	9		5	Hagenimana Leontine	6
6	Muhawenimana Louise	17		6	Ishimwe Clemence	11
7	Mushimiyimana Felix	13		7	Mutesi Jeannine	9
8	Ndatimana Pascal	6		8	Niyigena Felicien	5
9	Tuyishime Mathias	16		9	Nteziryayo Jeanne	10
10	Uwamugira Clenia	5		10	Uwamahoro Chantal	12

After recording, Dusenge shows students their marks and starts immediately the following unit.

Do you think that Dusenge was ready to start the following unit? Explain

2.6.1 Marking

Marking is defined as the process of judging the correctness of a student's academic work based on a specified criterion.

Marking should be always conducted in such a way as to ensure validity of result. Marking schemes should be well elaborated so that teachers mark in similar ways and learner results can be comparable.

Guiding principles for effective marking
- **Timely Feedback**: Students need timely feedback. If feedback is not given within a couple of days the meaning and value is lost.
- **Specific:** The commonly used phrase "Great work" is not particularly powerful in providing constructive and purposeful feedback to students. Try to give feedback that is pointed and personal. For example "Good imagery at the beginning of your story. Try to keep that imagery throughout" or "Remember capital letters for every sentence start."

- **Positive and constructive:** Positive reinforcement is far more motivating for students than a list of errors. Always try to find a point of praise when recording feedback. It is important to provide some point of constructive feedback to inform future work.
- **Student reflection:** Students should always reflect on their work. Intrinsic motivation is far more effective than extrinsic and personal motivation for improvement is vital for student progress. Once you have marked student work provide time in the subsequent lesson for students to look over your feedback and provide their own personal reflection.

Factors that influence subjectivity in marking

The following are common factors that may interfere with the attribution of marks during the marking process:

- **Stereotypes effect:** Marker (examiner) maintains a constant judgment on students' activities despite progress that he/she has made.
- **Hallo effect:** This is when the marker is influenced by the way the candidate has presented his/her work.(handwriting, spelling) or information he/she has about the candidate's background.
- **Contrast effect:** Examiner is influenced by the quality of the previous work. Eg: a good work following an excellent one will appear as mediocre compared to the previous one.
- **Pygmalion effect:** The work of candidate, who is well known, will be marked not according to its content but instead according to the way the candidate is treated.
- **Assimilation effect:** There is tendency that examiner attribute high marks to the brilliant students though their work deserved less marks.
- **Relativation effect:** The value (quality) of a given work is judged according to the set or group of work in which it is located.
- **Central tendency effect:** Examiners tend to take a middle position when attributing marks to students' work as they fear to over or under evaluate them.
- **Contamination effect:** The marks attributed successively to different aspects of a work influence one another.

Some tips to reduce subjectivity
- To reduce contamination effect you may mark one question for all copies until all questions are finished.

- Hallo effect and contrast effect should be reduced by marking without consulting the name of the candidate and marks attributed to previous work. Changing the order in marking, mixing copies and anonymous marking are other strategies.

- Marking anonymously help teachers to be objective in marking. If the teacher knows the identity of the student, his overall impressions of that student's work will inevitably influence the scoring of the test. The teacher can fold the part of the paper to make student's names not visible or ask students to use their student identification numbers rather than their names.

- Ensure a marking rubric is well elaborated before marking especially for essay questions. Marking rubrics, or grids, is a typical way to do avoid subjectivity during marking. Having received the criteria with an assignment, students are able to answer toward specific goals. Later, when they look at their grades, they can see at a glance the strengths and weaknesses of their work.

- Segment your marking session into more manageable chunks of time to avoid marking when you are tired, bored, or frustrated.

Marking criteria

A detailed set of Marking Criteria must be submitted with each paper. A satisfactory set of marking criteria would allow:

- Someone other than the setter to mark the students' answers fairly,

- Teachers in future years to see what was required as an answer to that question, and

- The external examiners to confirm the cognitive level required by the assessment.

These marking criteria will normally include:
- Model solutions to problems, annotated with how many marks are to be awarded for each stage.

- Marking schemes for essays indicating how marks are to be awarded.

- Within a question, marks must be allocated according to the mark distribution indicated on the question paper and the approved marking criteria.

- The marker must use a pen (not a pencil) which writes in red or green ink.

- Unless annotation within the text of an answer is unavoidable, the marker

should write only within the margins of the answer sheet.

- Marks for individual parts of the question should be written in the outer margin. The total mark for the question, ringed for ease of identification, should be written in the outer margin at the end of the answer. The total mark should be copied into the mark table on the front of the answer book and into the module mark sheet.

- Half-marks may be allocated to component parts of questions but the total mark for each question must be rounded to a number. In all cases, the final mark for the examination script must be returned as a numeral percentage. To facilitate checking, marks must not be indicated by '+/−' symbols, or any other cryptic notation.

- The marker must inspect all rough work (generally at the back of the answer book) for material which deserves credit. If the mark table on the front page includes marks derived from rough work, this should be indicated by a note next to the mark table.

- Each page that has been considered by the marker (including all rough work) must have some indication to this effect. If a page attracts no mark or comment, the marker should put a line down the outer margin to indicate that the page has been seen.

- For the benefit of external examiners and checkers, in cases where the rationale for allocation of an individual mark may not be self-evident, the marker should provide an explanatory note in the outer margin.

- All answers submitted by a candidate must be marked. If the candidate has answered more questions than indicated by the examination rubric, the marks from one or more questions must be disregarded in order to obtain the appropriate number of question marks.

2.6.2. Record keeping

This is gathering evidence from assessments and using them to judge the learner's performance by assigning an indicator against the set criteria or standard.

Purposes of recording
- Tracking each learner's performance and for remedial actions.
- Evaluating the extent to which learners' progress matches their potential.
- Providing learners with feedback about their performance and guidance as to how to improve.

- Informing strategic planning of teaching and learning.
- Informing parents about the learning progress of their children and give advice accordingly.

What to record and when to record?

Frequency of a particular behaviour or a particular competence may be recorded for the duration of a lesson, or for a set time of period within a lesson or within the learning unit. At times the teacher may need to record the learner's response for the teacher to analyse these responses to redirect future instruction. At times anecdotal comments which refer to written notes describing events or incidents that occur about the learner's behaviour might be helpful.

Methods and formats of recording

For informal assessment of generic competencies, attitude and values, either a simple check list method or a rating scale or grade or both can be used to show the extent to which a learner has achieved a task against the set criteria.

2.6.3. Assessment results analysis and strategies

The assessment results need to be analyzed to learn whether or not, the criteria on the student learning outcomes were met. To give meaning to the information that has been collected, it needs to be analyzed for context, understanding, and to draw conclusions. This step gives the information meaning; it is essential to effectively communicate and utilize the assessment results.

Analyzing assessment results includes determining how to organize, synthesize, interrelate, compare, and present the assessment results. These decisions are guided by what assessment questions are asked, the types of data that are available, as well as the needs and wants of the audience/stakeholders. Since information may be able to be interpreted in various ways, it may be insightful to involve others in reviewing the results.

Assessment results can be compared to findings from previous assessments, baseline data, existing criteria/standards, etc.

Assessment results analysis can be done quantitatively or qualitatively.

Quantitative analysis: Assessment results are measured numerically (counts, scores, percentages, etc.) are most often summarized using simple charts, graphs, tables, and descriptive statistics- mean, median, mode, percentage, etc.

Qualitative analysis: Assessment results focus on words and descriptions and produce verbal or narrative data. Descriptions or words are more difficult to quickly summarize and present.

Once an appropriate analysis technique is applied to the assessment results, the next step entails making decisions based on those results.

By taking decisions, consider the extent to which your findings can help you answer the following questions:

- What does the data say about students' mastery of subject matter, research skills, or writing?
- What does the data say about your students' preparation for taking the next step in their careers?
- Are there areas where your students are outstanding?
- Do you see weakness in any particular skills, such as research or critical thinking skills?
- Are there any student who needs remedial activities?
- Etc

Application Activity 2.6

1. Did you have some issues about how your works were marked by teachers in primary or O' level? If yes what was the issue and how can you avoid that once appointed as a teacher?

2. If you return to your former schools, do you think you can find your assessment results? Explain.

2.7. Providing feedback

Activity 2.7

Did your teachers show you your results after quiz or exam? What did your teacher write on your copy? Did they tell you anything? Were you interested in the feedback given? Why? Are you the only one to see your results?

2.7.1. What is feedback?

Feedback can be defined as any comment or reflection (written or oral) provided by others (i.e. teachers, peers) on learners' work so they are given opportunities to improve. Although teachers are most often the ones who provide feedback to learners, peers can also be excellent sources of feedback. Feedback can be given in different forms or ways. It can be in the form of oral, written, or facial expression or gesture (clapping etc).

2.7.2. Purposes of feedback

The main purposes of feedback are to:
- clarify what good performance is (goals, criteria, expected standards),
- facilitate the development of self-assessment (reflection) in learning,
- deliver high quality information to learners about their learning,
- encourage teacher and peer dialogue around learning,
- encourage positive motivational beliefs and self-esteem,
- provide opportunities to close the gap between current and desired performance,
- provide information to teachers that can be used to help shape teaching,
- help students understand the subject being studied and gives them clear guidance on how to improve their learning.

2.7.3. Giving and receiving feedback

Giving constructive feedback in the form of verbal or written comments is a vital aspect of ongoing classroom assessment. Feedback can be provided in a range of situations: from an instant, informal reply to a more formally planned review. While giving oral feedback, the teacher should:
- Emphasize the positive. Always give specific feedback on what a learner has done well.
- Appreciate what has been achieved and be clear about exactly what needs to be improved next and how.
- Seek learners' views and value their contribution. This will help them to get better at assessing their own work, which is vital to them to become independent learners.
- Invite the learner to comment on what the teacher does as well. Feedback is not a one- way process.
- Frame questions carefully. Use open questions and resist asking more than one question at a   time.

- Use prompts/cues such as 'Would you like to say more about that?'

- Give a few seconds after posing a question or a response has been given, to encourage learners to carefully consider and expand on what they have said.

- Avoid generalizations such as 'There are a lot of inaccuracies. Instead focus on specific areas for development which you can discuss with the learner.

- Focus on things that each learner can change, and avoid overloading them with too much feedback at once.

- Be sensitive if the teacher has to give feedback to one person in a group. The learner might feel undermined if others hear.

- Look for ways forward together. Share ideas and explore solutions rather than always putting forward teacher's own suggestions.

- Create a situation on how learners agree on the given feedback. This could include agreeing new targets or planning learning opportunities.

2.7.4. While giving written feedback
- Don't jump straight to the errors. Praise first the strengths.
- Respond to the content and the message rather than focusing on writing is poor, select one or two particular areas to draw attention to. Don't cover work in red ink.
- Be specific. Indicate what action the learner should take in relation to weaknesses that have been marked.
- Encourage the learner to make corrections. Don't simply write correct answers, spellings and so on.
- Link the comments to the competences.

2.7.5. Strategies for effective feedback

- **Using Positive comment**
  - Negative information should be 'sandwiched' between positive information;
  - Constructive criticism with explanation of how to improve

- **Using Contextual statement**
  - I liked….because….
  - Now/Next time…
  - Interactive statement e.g. a question based on the work

- **Giving the feedback as soon as possible after performance**
  - **Reducing uncertainty for learners by increasing knowledge** and by eliminating alternative or competing explanations for behaviour
  - Allowing learner to act on feedback
  - Use lesson time to redraft work
  - Allow learners time to focus on the feedback for improvement
  - Reinforce the value of the feedback and working in a supportive environment

- **Following-up**
  - Time in the lesson to talk individually
  - Have a written dialogue in learners' books
- Use a comment tracker or target sheet to formalize the dialogue in a workbook

2.7.6. Ways of giving feedback

There are three ways of giving feedback:

- Feedback that compares a learner with others
- Feedback on the outcome a learner produces, or the thinking process a learner uses
- Feedback that describes or evaluates the learner's work

- **Feedback for target users and stakeholders**

Feedback to learners

Assessment results should be conveyed to learners and used to strengthen successful   performance and assist in the remediation of weak performance.

This feedback should be:
- Immediate
- Detailed (showing where the learner went wrong or what should have been right)
- Emphasize strengths and weaknesses of performance
- Indicate remediation
- Be positive in nature

- Only on minor errors
- Further develop their knowledge, understanding and skills
- Support their future learning
- Indicate areas of success in their work
- Indicate areas for future improvement
- Enable them to improve and plan their next steps

Example of feedback to learners

Teacher Jane: Good feedback			
Assignment Questions	Correct Answer	Learner's answer	Teacher Jane's Feedback
a) $4 \times (2 + 4) - 6 =$	18	18	"Correct. Good"
b) $6 + (6 - 2) \times 2 =$	14	20	"Incorrect.You did not do the calculations correctly. Redo it"
c) $2 + 4 \div 2 + 3 + 3=$	10	8/5	"Incorrect.Your calculations are wrong. Pay attention to your work".
Teacher John: Good feedback			
Assignment Questions	Correct Answer	Learner's answer	**Teacher John's Feedback**
a) $4 \times (2 + 4) - 6 =$	18	18	'Correct. I like the way you did the calculations inside the parentheses first, and then multiply'
b) $6 + (6 - 2) \times 2 =$	14	20	'Can you see what you did incorrectly? I think you forgot to do the calculations inside the blackest first. What do you think? Check the problem again and remember after calculating inside the parentheses, to do multiplication before you do and adding or subtracting.Try the problem again; I think you will do it better now'.

Feedback to teachers should:

- Help them to check the effectiveness of instruction
- Make decisions about learners' needs to carefully plan for the next lesson
- Help them to know how well their learners could reach the stated competences
- Provide them opportunities to be reflective about the academic and social progress of their learners
- Support them to gain a deeper understanding of each learner's strengths and needs

Feedback to parents should:

- Provide them with clear and concrete evidence of their children's progress
- Provide adequate information to them to monitor, supervise and support their children's work and assignments
- Increase parents' involvement in school activities
- This feedback to parents is provided when giving reporting to them. The wider range of learning in the new curriculum means that it is necessary to think again about how to share learners' progress with parents. A single mark is not sufficient to convey different expectations of learning relating to competences and in the learning objectives. The most helpful reporting system is to share what learners are doing well and where they need to improve. Further guidance will also be produced in relation to reporting to parents in due course.

Application Activity 2.7

Describe the qualities of assessment feedback for learners

2.8. Special considerations when assessing young children

a) Observe the picture above and make a description of what is happening
b) Connect this image to the learnt assessment principles.
c) If you focus on the age of those children, what are other principles that the teacher should consider for an effective assessment?

When assessing young children, the following should be considered:

- **Complete and meaningful assessment in early childhood necessitates an understanding of family context**, including getting to know family language and culture, gathering developmental information from parents, and conducting home visits with parent approval. Understanding family expectations and experience places a child's behavior in context and can prevent harmful decisions that result from misinterpretation of assessment data.

- **Younger children present some complex challenges and require flexible procedures for gathering meaningful and useful assessment information**. Constitutional variables such as fatigue, hunger, illness, and temperament can easily overshadow the abilities of a young child. Time of day, setting, testing materials and other situational factors also affect performance.

-

The younger a child, the more likely he or she is to fall asleep, become distressed, and refuse to comply with directions, or be distracted from assessment activities. Professionals should be prepared to modify activities, explore alternative procedures, and/or reschedule rather than risk gathering faulty information that compromises assessment results.

- **Young children learn by doing** and demonstrate knowledge and skills through action-oriented activities. Authentic assessment of youngsters as they participate in daily activities, routines, and interactions generally produces the most valuable information for assessment. Assessment methods should, therefore, allow for observation of young children engaged in spontaneous behaviors in familiar settings and with familiar people.

- **More assessments and increased data do not necessarily result in better assessment information**. Early childhood professionals should only gather information they need and know ahead of time how they will use all the information collected. It is generally most desirable to identify a set of appropriate methods and instruments that provide necessary information and refine the use of those procedures over time.

- **Some assessment instruments and procedures are better than others**. Of primary importance is the quality of information gathered and the decisions made as a result of assessment. Ultimately, whatever assessments we conduct should benefit the children, families, and programs we serve.

Application Activity 2.8

Compare and contrast the assessment of pre-schoolers and primary pupils.

End Unit Assessment

1) How can formative assessment be used to establish instructional priorities?
2) What role will students play in the design of the assessment or the assessment process?
3) How can formative assessment support the curriculum?
4) How valid will the assessment be?

UNIT
3
PLAY IN EARLY CHILDHOOD (ECLPE)

Key unit competence: Design opportunities for young children to engage in different types of play and interact with them as they play to build their thinking and language skills.

1. Compare any play of 3-5-year-old children and a match of football between two schools for interschool trophy organised at Sector level. Is there any difference between the two? Why?

3.1. Meaning of play

Activity 3.1

From the scenario of the two competing school teams, draw a table with characteristics of play that are different from those in the match mentioned above.

3.1.1. Definition of play

Play has been defined by different psychologists, but the definitions depend on their schools of thought. According to Piaget, J (1962) play is the way the child learns about his/her environment. He continues to argue that play has an interactive nature that facilitates construction of knowledge. Anna Freud (1965), a daughter of Sigmund Freud uses the approach of the unconscious self and says that play is an acceptable behavior through which a child expresses his/her emotions and impulses. A sociologist, Groos (1901) describes play as a means through which children get an opportunity to practice the necessary life skills. For Kuffaro (1974), "play is the visible language of childhood wherein we see and hear the total child functioning, revealing his/her concerns, conflicts, information and misinformation, wishes, hopes, pleasures and questions.

In view of the different definitions, it is clear that play cannot be easily defined. Nevertheless, play can generally be described as the voluntary activities of children, which are inherently enjoyable. It involves intrinsic motivation focused on process rather than product. It also involves pretence, implicit (implied but not expressed) and flexible rules. Play is therefore a pleasurable activity that is engaged in for its own sake.

3.1.2. Characteristics of play

- Play is **pleasurable**: the participants may not be necessarily laughing but there is enjoyment in any play activity. It has been found that an activity that engenders so much stress in the participant can hardly be described as pleasurable.

- Play is **voluntary**: this means that the activity is not a prescribed duty and the player does not expect a reward. There is no coercion into play and the player decides whether to play or not.

- Play is **not goal-oriented**, not focused on some product. This means that the process is more important than the end. Fergus (2010) regarded play as intrinsically motivated. This means that play is end in itself, done only for satisfaction of doing it.

- Play is **actively engaged in by the player**: in play, the child concentrates on the activity. The involvement could be physical, mental or psychological.

- Play **involves a lot of pretence**. Play portrays a "what if?" attitude. In actual fact, play has been described as the opposite of reality. Play involves a certain element of make-believe, a distortion of reality to accommodate the interest of the player. This is particularly true of the symbolic play that is so characteristic of the preschool years, when children spend much of their time experimenting with new roles and playing out imaginary scenes.

- Play is **flexible**. It may be modified according to the wish of the player.

The terms 'play' and 'game' are synonymous but it is important to note the difference between the them.

The difference between Play and Game is that **play** is an activity for amusement, especially among the young while **game** is an activity with rules performed either alone or with others, often for the purpose of entertainment, education, monetary gain or other reasons.

3.2. Importance of play

3.2.1. The benefits of play to children in general

Play allows children to use their creativity while developing their imagination, dexterity, and physical, cognitive, and emotional strength. Play is important to healthy brain development. It is through play that children at a very early age engage and interact in the world around them.

Play activities involve the child's total self and use of all forms of energy. Play is comparable to food as a necessity for the growth and development of a child. It has been argued that play gives a child the reason for existence and gives assurance of immortality.

Through play, a child:

- Develops imagination

- Acquires skills of body and mind

- Can understand, sympathise and empathise

- Acquire competition skills and learns how to cope with failure and success

- Can persevere i.e. acquisition of the ability to struggle towards a desired end.

- Acquires healing for hurts and sadness

- Releases pent-up urges towards self-expression

- Is provided with a complex awareness of the world and her or his ability in relation to it.

Application Activity 3.2
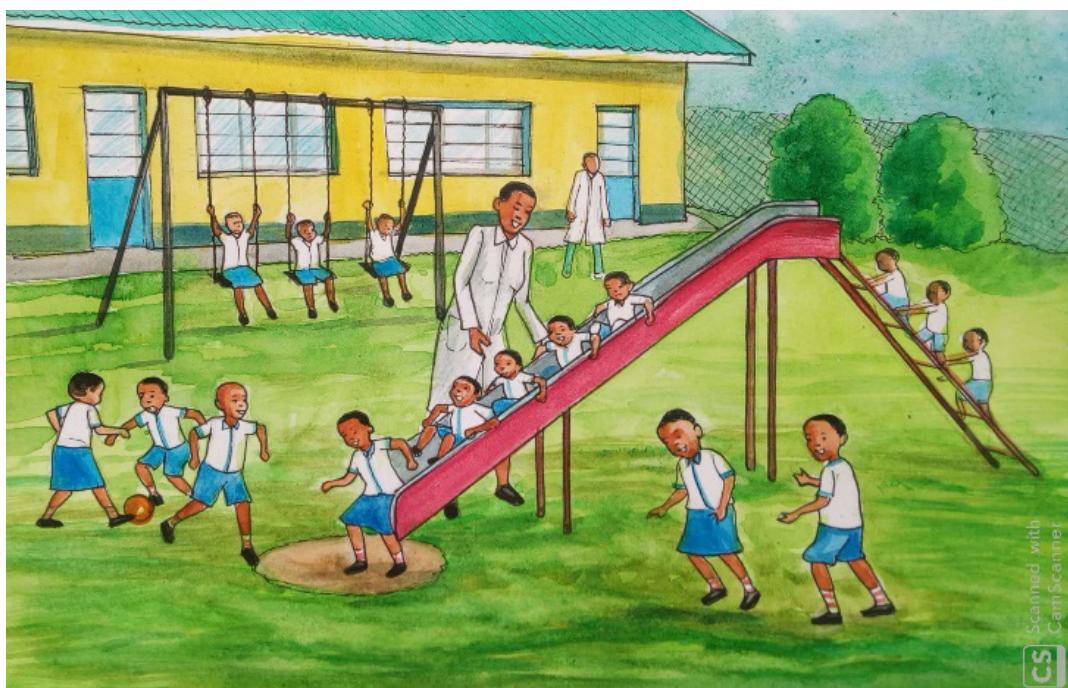
Explain what the child benefits through play.

3.3. Adults' support to children's play

Activity 3.3

While playing, children should not be abandoned; they need the company of an adult. Explain why you agree or disagree with this statement.

3.3.1. Introduction

It is important to study the role of adults in children's play when examining the positive effects of play on the development of children's skills. The reason is an adult is expected to provide opportunities for children's play through adjustments of physical and social contexts. Broström (2003) expressed the view that the full potential of play can only be unlocked by active teachers or parents .

There were many controversial arguments about whether adults should be involved or not involved in children's play. But finally, it was recommended that there should be a balanced diet of free, child-initiated play, play between children and adults, and so on. This predominant view concerning a balance between adult-child play and adult-free play manifested itself most clearly in a general consensus around the view that an adult who pays attention, listens to the child and talks to them, will be more beneficial than an adult who structures and directs the child's activity.

For adult directed/structured play not to be 'work' but 'play', it is possible for adults to operate as co-players with children, supporting and extending the play activities, while preserving the children's freedom and autonomy to develop the play as they wish (Howard, 2010).

3.3.2. The role of adults in children's play

In order to help a child learn and know, you need to learn to know your child, which you can do by supporting their play. You can support children's play by

- **Paying attention to environment and structure.** When you structure an environment (either indoors or outdoors) based on a child's strengths, abilities and needs, you can enhance their normal play and help them be successful and independent.

- **Building and extending.** Challenge a child's current knowledge or understanding through opportunities or materials that extend upon their current experiences or understanding.

- **Providing choices.** Giving children the freedom to make their own choices is not only empowering but helps them to lead their own learning experiences based on their interests and abilities.

- **Talking about play.** Adults can extend and support a child's play simply by engaging with children during play. Adults can talk to children about their play. By being involved, children learn that adults are invested in them and respect their play decisions.

- **Validating their efforts.** Participating in play with your child is fun for them and shows them you value what they are doing. Your presence and proximity to children can communicate a lot to them.

- **Adding to children's play.** In actively participating in play, when invited, adults can extend upon a child's current knowledge and help them make new connections. This can be done by modeling positive behaviors or interactions.

- **Preventing problems.** By being actively involved in the process of play, adults are in a good position to intervene if a situation arises when a child might need help, whether it is an interpersonal conflict, a problem or a safety concern. It's important to remember children need opportunities to practice problem solving and conflict resolution independently as well. Make sure to give children ample opportunities to practice these skills on their own and only intervene if necessary.

- **Building children up.** Sometimes children may need help engaging in activities or joining an activity, and when adults are regularly a part of their play, they can be a good bridge to help children feel comfortable initiating and participating in play.

3.3.3. Adult's positive interactions in children's play

Responsiveness is an approach to conversation and play that is meant to help promote positive interactions between adults and children. Adults join in play and follow the child's lead, while promoting turn-taking in conversation and play. Additionally, adults provide verbal models of target language, but do not prompt expressive language from the child. There are several strategies to use during responsive play. A few are listed below :

- **Imitating language:** Imitation involves repeating what a child says. For example, if the child picks up a toy train and says, "train", the adult could point at the train and say, "train."

- **Expanding language:** Expanding involves repeating what the child says and adding an extra component. For example, if the child says "train", the adult could say "red train." Or the adult can pick up another train and push it forward and say "The train is fast!"

- **Imitating play:** Imitation in play involves doing exactly what the child does. For example, if the child puts a piece of play food on a plate, the adult could pick up a similar piece of play food to put on a plate.

- **Expanding play:** Expansion in play involves doing what the child does and adding an extra behavior. For example, if the child holds a baby, the adult could hold a baby and feed the baby with a bottle. Similarly, if the child stacks blocks and says "I made a house!" an adult could make a similar structure and add an extra block and say "I put a chimney on my house!"

Following a child's lead: During play, allow the child to take lead and follow what they do. If they change toys, change toys with them instead of trying to re-engage them with the previous toy. For example, if the child is building a house and then picks up a matchbox car, the adult might choose to get a similar vehicle rather than saying "Don't you want to play with your house?"

Application Activity 3.3

1. From the discussions about adult's role what should the caregiver do for children to benefit from play activities?

2. Choose a strategy that a caregiver could use to motivate children during play and explain why you chose the specific strategy

3.4. Types of play
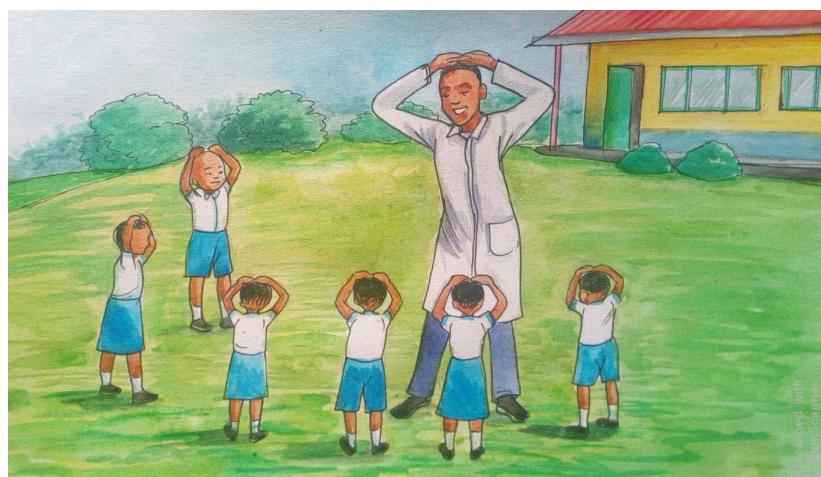
Activity 3.4

Associate play activities to where they are organized, characters involved and stages of development concerned.

3.4.1. Types of play by organization

- **Structured play**

Structured play is generally adult led providing direction, and a specific task in order for a child to learn a new skill. It's usually an activity on offer at playgroup with a specific purpose and adult input, for example a game shared between preschoolers, a challenging puzzle, etc.

During structured play, children are introduced to new ideas and opportunities, enhancing their development and learning abilities, such as setting the foundations for learning to focus, pay attention, take turns and follow instructions.

- **Unstructured play**

Unstructured play means open ended, or creative **free play** with endless possibilities. It is child-led and directed and doesn't require an outcome or product - playing in the home corner; free construction with blocks, painting on blank paper; or getting creative with various recycled materials.

Unstructured play provides children with experiences in creativity, imagination, decision-making and the development of overall emotional and social skills.

- **Indoor play**

Indoor play is play organized in interior environments. They are specifically designed for learners to play in and have tremendous fun with. The soft-contained structure and play equipment are wrapped in soft foam to absorb the impact when children fall or bounce around.
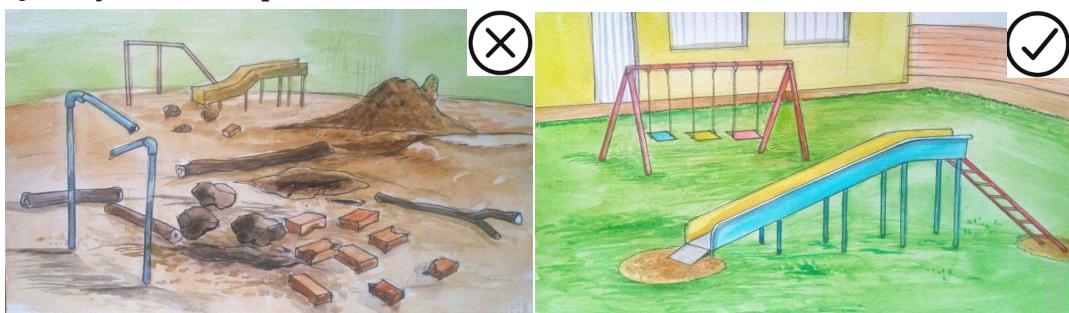
- **Outdoor play**

Outdoor play is one of the fundamental aspects that characterizes childhood. Children need exposure to the natural world through exploration, experimentation, motivation and manipulation of their senses.

The benefits of outdoor play are outlined as follows:

- Better physical health

- Numerous opportunities to strengthen motor skills

- Stress relief

- Greater visual-motor integration (or the ability to control hand or body movement guided by vision)

- Greater creativity

- Stronger verbal and social skills

- Production of Vitamin D (an essential vitamin for bone health) through exposure to sunlight

- Increased attention and cognitive abilities

Quality outdoor space

According to Children and Nature Network (2012), Outdoor play environments should be free of the following:
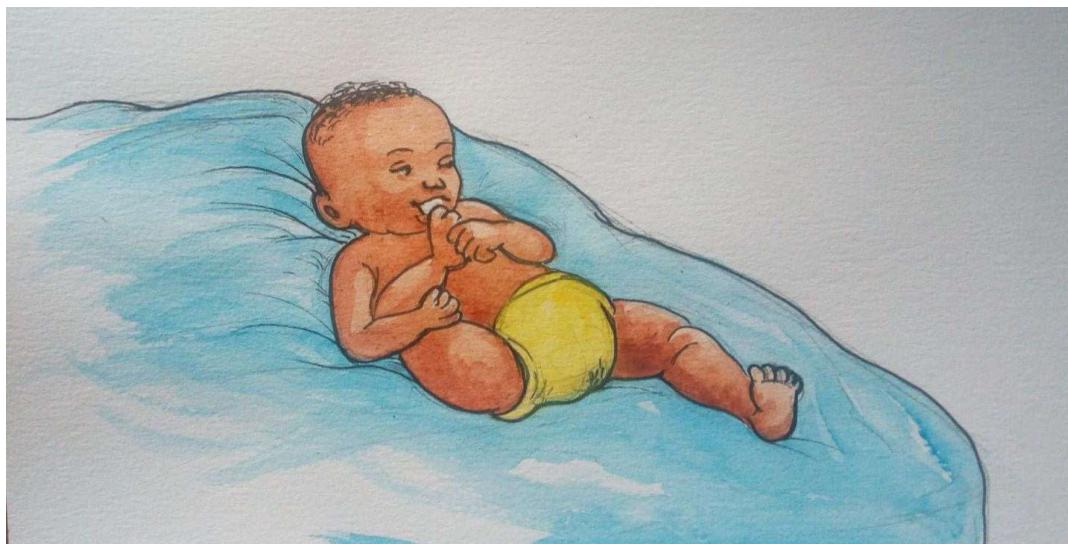
- Missing or broken parts, glass, cigarette butts, litter, building supplies

- Protrusion of nuts and bolts

- Rust and chipping or peeling paint

- Sharp edges, splinters, and rough surfaces

- Stagnant water

- Visible cracks, ditches, holes, wells, traps

- Unstable non-anchored large play equipment (e.g., playhouses, climbers)

- Deterioration

- Broken or worn electrical fixtures or cords

- Animal excrement and other foreign material

- Surfaces that are too hot or too cold for children to touch safely
- Natural objects that might cause harm: sharp rocks, stumps, roots, branches
- Unsafe insects: anthills, beehives, or wasp nests

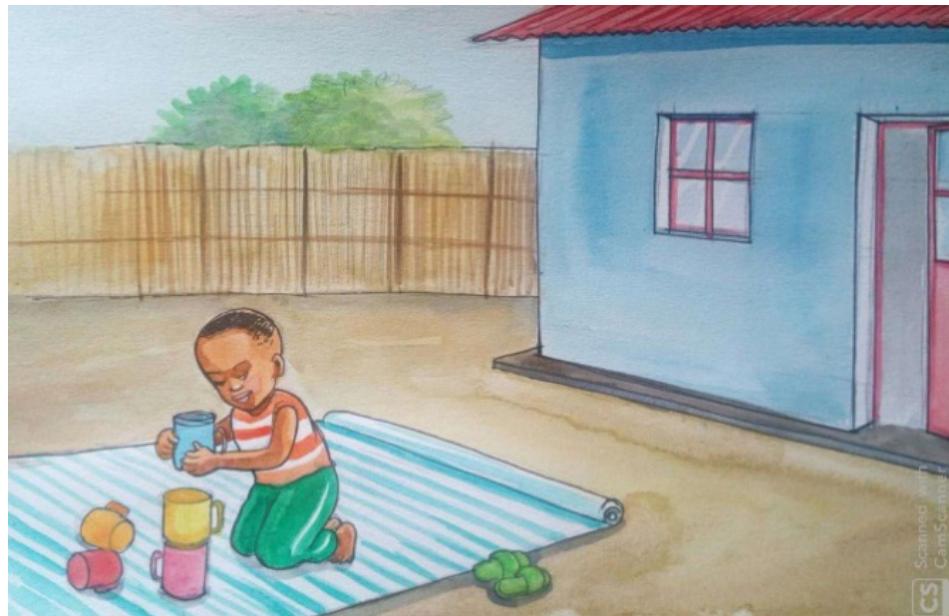### *3.4.2. Social play*

- **Unoccupied play (birth-3 months)**

Parten (1932) defined this as a child not engaged in play. But you could think of this as the "infancy" of play. Here, your baby or toddler creatively moves their body with no purpose other than it feels good and interesting.

It's the most basic type of play. Your child is completely free to think, move, and imagine. Even the smallest object is full of wonder if you've never seen anything like it before. Choose something with lots of textures and color, and avoid bright lights or surprising noises, as they may startle your little one.
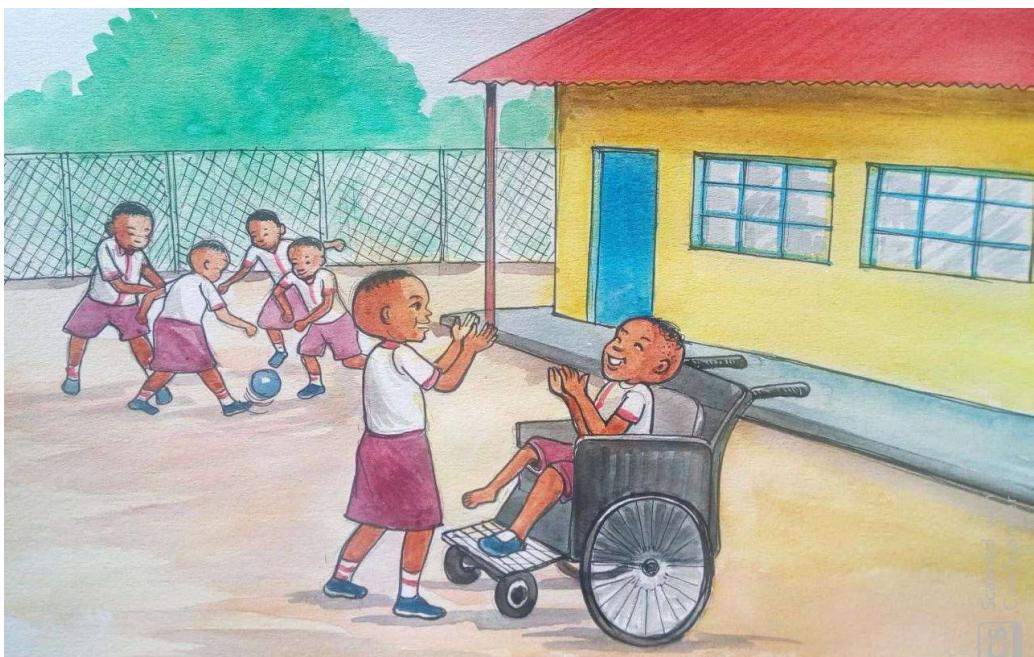
Examples: Child-friendly household objects: spoons, plates, jerrycans, etc. for the child to be familiar with the world around him/her before you introduce objects from other environments.

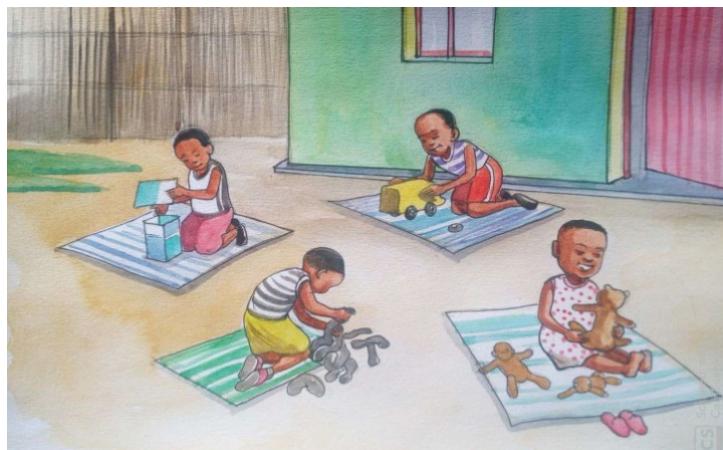- **Solitary, or independent play (Birth-2 years)**

When a child plays alone, she learns to concentrate, think by herself, comes up with creative ideas, and regulate emotions. All of these are important things for a child to learn. Playing independently is important and normal.

- **Onlooker/spectator play (2 years)**

This is the type of play where a child watches other as they play and remains actively engaged though not physically. The child plays the role of a spectator. A child who is engaged in this type of play is so involved that he/she may even ask questions or give suggestions on whatever the others do.

- **Parallel Play (2+ years)**

It involves a child playing alongside – but not really with -- other children. If you watch, you will notice that there is no formal interaction, but the children are often playing with the same toys and engaged in a similar activity. This type of play is very common for children from 1-3 years of age. Parallel play is very important as it teaches children peer regulation, observation skills, how to get along with others, as well as ways to work independently.

- **Associative play (3-4 years)**

Here, your child plays with other children, but the learners do not organize their play toward a common goal. Children play together interacting with one another, but they don't seem to be harmonizing their activities. They take part in the same activity and do basically the same thing but no attempt to organize the activity or take turns. Each child acts as he or she wishes and his or her interests are not dictated by the group interest.

- **Cooperative Play (4+ years)**

It is a more organized kind of play. The child plays as part of a larger group that has a collective goal such as making an art project or putting on a skit. During cooperative play, the role of leader and follower are often visible.

- **Rough and tumble play**

Rough and tumble play has been defined as physically vigorous behaviors, such as chase and play fighting, that are accompanied by positive feelings between the players. It seems aggressive, physical and risky even when the children engaging in it are full of joy and excitement. That is why it is sometimes challenging for preschool teachers to handle even though it is important for children's development. Rough-and- tumble play is a social activity that usually occurs among children who have had considerable social experience with each other. This play involves: wrestling, tickling and chasing.

3.4.3. Play by content

This is a classification according to what a child does. Content focuses on the actual play activity irrespective of the number of children involved. Some of the identified categories are physical, expressive, exploratory/manipulative, constructive, dramatic/pretend/symbolic play and games with rules. Play and

children are inseparable. Play is the work of early childhood. Develop mentalists view children's play as a major means through which physical, cognitive and social skills are strengthened and sharpened.
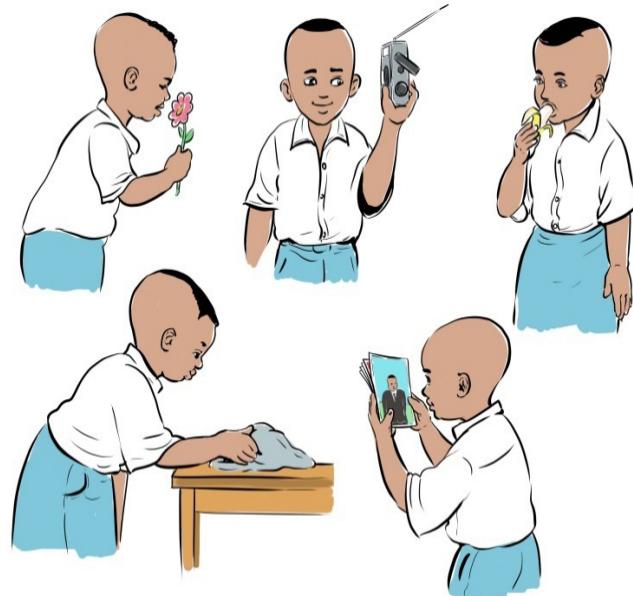
- **Physical play**

When children run, jump, and play games such as chase, hide-and-seek, they engage in physical play. This play has a social nature because it involves other children. It also provides exercise, which is essential for normal development.

- **Expressive play**

Certain forms of play give children opportunities to express feelings by engaging with materials. Materials used in expressive play include finger-paints, watercolors, crayons, colored pencils, and markers, and drawing papers, clay, water, and sponges, beanbags, rhythm instruments. Parents can take an active role in expressive play by using the materials alongside the child.

- **Sensory motor play**

This is play that captures the pleasures of using the senses and motor abilities. For example, they

develop the senses of touch, feel, smell, sight and hearing. Infants engage in this kind of play and delights in things like kicking the side of the bed/cot and watching a turning mobile toy, objects etc.

This pleasure in sensory experiences and motor skills continue throughout childhood. Children happily explore many sensory experiences. For example, from their food they explore by feeling various textures with their hands, by watching peas float after they put them in their milk, by listening to the sound they make as they drink their porridge, or milk, by tasting unusual combinations such as cocoa mixed with juice, tea, or soda.

- **Skill Mastery play**

This occurs when a child is learning to do something new. Often, she uses trial and error to repeat the same skill over and over. Skill mastery play is common when learning to throw a ball, ride a bike, swim, or swing independently. This play helps the children to master new skills. For example, as you walk with the child to the shops or the market, the child will skip, jump, walk backwards, run, and drives imaginary vehicles etc.

Hand skills are also developed in mastery play for example when they tie knots in their shoe laces, put pegs in pegboards, use a pair of scissors to snips papers,

etc. Mastery play is most obvious when physical skills are involved. The impulse to engage in mastery play comes naturally to pre-school children. Parents should encourage a child and influence the skills a child will master.

- **Dramatic/Pretend/Symbolic play**

The beginning of dramatic play coincides with the achievement of symbolic thinking and can be clearly seen. For example, a child is feeding, cuddling and punishing a doll. Dramatic play helps social development especially when two or more children cooperate in creating their own drama. Simple domestic scenes are one of the standard plots of dramatic play. Other scenes include doctor, nurse and patient, a thief and a policeman. Dramatic play such as this not only is fun but also helps children try out social roles, express their fears and fantasies and learn to cooperate.

- **Games with rules**

There are two types of games with rules, table games and movement games. Each child who is involved in a game has to conform to a structure of present rules. In this kind of games, children learn how to control their behavior. Games

are based on chance, skills or strategy. It is not worthy that all games involve memory, manipulation and strategizing. The ability to play games develops as the social skills mature. Experience makes them able change rules. Young children may not be ready to share, cooperate and to take turn.

3.4.4. Play according to the stages of development

Stage 1: Social affective play (birth through infancy)

Play begins with social-affective play, wherein infants take pleasure in relationships with people. As adults talk, touch nuzzle and in various ways elicit a response from an infant, the infant soon learns to provoke parental emotions and responses with such behaviors as smiling, cooing, or initiating games and activities. It is important for bonding and attachment formation. It occurs from birth through infancy and it involves cooing, touching and smiling between adult and child. The play involves no toys.

Stage 2: Sense-pleasure play (late infancy and toddler years).

Here the child explores his own body and his immediate environment using all his senses (hearing, seeing, touching, smelling and tasting). The caregiver should provide the child with a variety of opportunities for optimum sense development.

Stage 3: Skill – play (toddler and preschool ages).

The child uses his large and small motor skills i.e. the child uses the arms, legs and fingers.

Stage 4: Dramatic play (pre-school child).

This emerges as the child makes observations and imitates his parents, siblings and friends.

Stage 5: Ritual play (primary school years).

The child's interest moves from family to her or his peer groups. Play here involves games and the child has to conform in order to fit in the group.

Stage 6: Competitive play (preschool years to adulthood).

Here the individual plays either singly or as a member of team. This is usually from the time the child is in pre-school, to when he/she is an adult in high school or college. The individual may play as a member of a team or alone.

Application Activity 3.4

Make an association of the categories of play, based on organization, characters involved, content, with stages of child's development.

3.5. Criteria for selection of games for children

Activity 3.5

Explain the reasons why it is recommended for teachers to prepare a game and even try it before asking children to play that game.

- **Age appropriateness**

Games should advance in complexity in proportion with chronological and mental age development. The content in the game must be commensurate with the children's age. Too difficult games will put children off while too easy ones will make them lose interest.

- **Area of development**

Games are usually developed with a purpose. Some games may be set purposely for sheer fun while others may be geared towards the development of a specific area.

- **Language to be used in the game**

Since games are social activities, the language used should be a language that children understand well.

- **Safety**

This refers to the safety of materials to be used in the game and the safety of the activities involved. There are some rough games which could hurt and hence not suitable for the young ones.

- **Space**

Games require space. There are some, which can be played indoor while others need big open spaces. When designing games, one should consider the required space in relation to what is available.

- **Cultural and religious appropriateness**

Owing to the diversity of cultures and religious practices, values and beliefs vary. Games should not contradict what is upheld in a particular setting.

- **Morality**

Games should be in line with what is morally acceptable. Remember that as children engage in various games or play activities, they acquire a "kit" for lifetime interaction.

- **Number of children**

The number of children the game is intended for should be reckoned with. The game should involve all the children even if it means taking turns. The waiting should not be long though. Consider children with special needs.

- **Time**

The duration of the game also matters. The fact that attention span advances with age should not be ignored. Essentially, the length of the game should be in line with the development stage of the children.

- **Materials**

There are games that require materials. It is necessary to think about the availability of the required materials. There should be an adequate supply of materials since young children may not be ready to share.

As a specialist in play, you are invited by the school to guide caregivers in the creation and selection of play activities for children, what will you include in the guide you are going to use to come up with appropriate play activities?

3.6. Play and developmental domains

Activity 3.6

1. What are the aspects of child's holistic development?
2. According to you, how 'play' can support child's holistic development?

3.6.1. Play and cognitive development

This is the development of the brain and intellect. Children tend to play according to the level of their intellectual development. Through play, children acquire knowledge and form ideas about the world around them. They also acquire or refine problem-solving skills in play. Children develop ability to make observation and refine their reasoning as they collect materials in play. Such materials include:

- **Flowers** – flowers are attractive, and children pick them in play. They remove the petals and as they embark on various play activities with them, their observation skills are developed.

- **Seeds** – children are fond of collecting and classifying seeds in their play. In order to group the seed, they must observe them. In addition to observation, children must reason and use a certain criterion as they classify them.

- **Weather** – children observe the changing clouds and they test the force of wind as they fly their kites. They also study the direction of their shadows as they engage in rough and tumble play (engaging too much force and not enough care or gentleness).

- **Soil** – children enjoy the feeling of the soil and discover the little creatures such as worms and bugs, which move on it.

- **Clay** – play activities that involve clay give children an opportunity to discover how moulding can change shape. As children model with clay, they make the dough and feel it. This promotes sensorial development.

3.6.2. Play and language development

In play, language is used systematically. Children play with sounds and combine them to make words. As children play individually, they practice their language performance by talking to themselves. Children tend to use a more complex language in play than in regular conversation.

Through play, children learn to communicate with each other. As they engage in social play, children need to communicate effectively so that each can perform the expected role. An example of this communication can already be seen in the common pretend play that involves household chores. Children must take different roles. They must:

- **Explain** – this is necessary for sharing the roles. It also helps children to follow the instructions and to know their roles and positions e.g. where the kitchen is and who is supposed

- **Describe** – children like describing games they have enjoyed. They will describe how different children performed in play.

- **Express ideas** – as they engage in the game, children share different ideas on how to make the play more interesting.

- **Express feelings** – a child tells of her or his feelings while taking a role e.g. a child who acts the mother may express her dissatisfaction with the children for having not performed the household chores delegated to them.

- **Ask questions** – in pretend like in most of the games and play activities, a child keeps on asking questions for example, a child who acts the baby asks question such as, "Mum where is my doll?" "Mum what shall we eat?" "Dad, I do this?" and the like.

3.6.3. Play and emotional development

The level of emotional development determines how a child reacts in different situations which may be exciting or frustrating. For example, how a child behaves after success or when he/she encounters a failure. Some children will jump up and down with excitement while others will just smile after success. When failure is experienced, some children will go to the extent of retreating or expressing their frustration by aggression or any other antisocial behavior.

Play releases tensions and aggression. It also sets a child free from restriction. As the child engages in various activities in play, he/she gains self-confidence and self-esteem.

In play, the child feels that she has power over the environment. This makes the child work for success without fear of a big and threatening world.

3.6.4. Play and social development

Children like to play with others. If a child has antisocial behavior, he/she is not accepted in other children's play. This makes the child seek to behave in a more acceptable manner. In other words, in play, children learn that their behavior directly affects their relationships with others. There are many identified social skills that are learnt through play.

These include:

- **Ability to make eye contact**

In communication it is necessary to make eye contact in order to convey or perceive the meaning. Children do not fear their peers and make eye contact as they talk to each other. This helps them to develop the habit of looking at each other as they engage in verbal communication.

- **Ability to empathize**

This is the ability to "put oneself in another's shoes" i.e. to share another's feelings. This makes the child develop sensibility to others' emotions and makes one competent in sustaining social relations. This is demonstrated as children portray different emotions as they engage in "pretend play".

- **Turn taking**

As children play, they learn to take turns and to respect others. Children learn that everyone is entitled to her/his chance and they willingly give each other a chance when required to do so.

- **Sharing**

Grabbing everything to oneself makes a person unacceptable among the peers. Play provides a forum for practicing pro-social behaviours such as giving, inviting, and co-operating. Play performs a major role in the development of behavior control. Children usually share materials and responsibilities in their games. This helps them to develop the spirit of teamwork and brotherhood.

- **Healthy competition**

In play, children compete towards arbitrary goals. In competition, there is a winner and a loser. As children engage in this kind of competition, they learn that one must struggle to win and there are chances of losing. In this play, they learn to lose without bitterness.

- **Gender roles**

Needless to point out, in traditional societies, there are prescribed roles according to sex. Studies have found that boys and girls differ in their play. Parents and peers have been found to reward the so-called sex appropriate play. Children learn the roles expected of them as they play. Play helps children to acquire the roles commensurate with the social gender norms. It must be noted that in sex appropriate play, traditional parents find it more acceptable for girls to play with boyish toys than for boys to play with feminine toys.

- **Self-control**

Through play, children practice self-control. The child realizes that he/she has limited capabilities. The child eventually learns to cope with her/his limitations and is able to act out the imminent frustrations. The development of self-control fosters a child's acceptance among peers.

3.6.5. Play and physical development

Physical play enhances healthy physical growth and motor skills development. All levels of physical play contribute to healthy physical growth. When children engage in physical play-act, they use all parts of the body. This promotes physical development.

In social dramatic play children learn the skills using the whole body to balance and co-ordinate their actions and speech. When children paint, play with sand, model with clay, draw or construct, they acquire fine motor skills and build their muscles. Development of body balance and co-ordination, which are important abilities, is acquired through play.

3.6.6.Summary of what research says about play for development

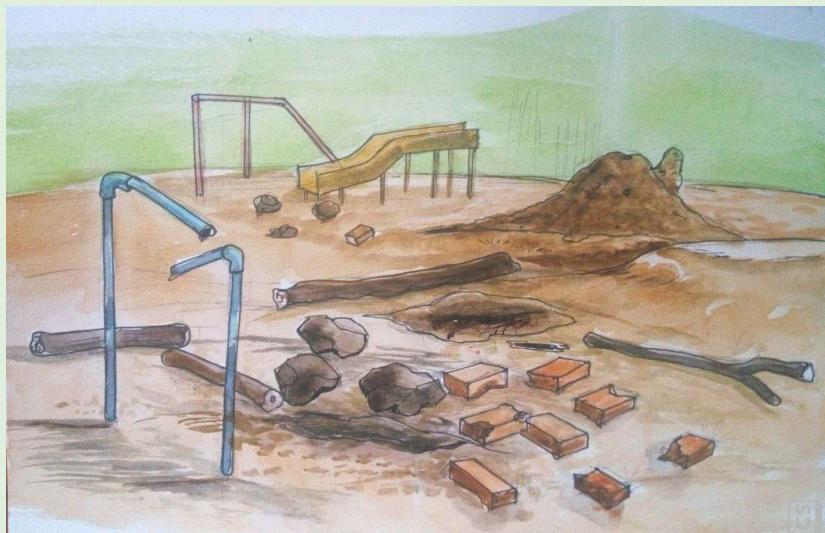| Key Life Skills	What the Research Says
Cognitive	- Children practice **problem solving skills** when they explore and experiment with new materials in free play. In play, they have the confidence and motivation to practice without fear of being wrong. Research shows that children try out more purposeful problem solving strategies when an activity is presented in play rather than when it is presented while sitting at a desk with a teacher.
	- Children develop early mental representations and **abstract thinking** when they assign pretend roles to objects or people and they learn about abstract concepts such as spatial relationships and motion when they build with blocks.
	- Young children who engage in elaborate pretend play, such as having a pretend identity, score higher on measures of creativity than children who do not engage in this type of play. Children also show improved levels of concentration, attention, and creativity after physically active play breaks.
	- Pretend play is connected to the practice of **counterfactual reasoning**, or the ability to think about alternative possibilities, which is a skill that helps children reason and learn about the world.
Social	- Children practice **cooperation, negotiation, conflict resolution, and l**istening skills when they play, share, and take turns with peers.
	- Children practice taking on adult roles, taking the perspective of others, and trying out new types of social interactions when they engage in pretend play with peers, building positive relations.
	- Classrooms that have shifted to incorporate more guided pretend play have reported improvements in caring social interactions between students and a sense of positive classroom community. Children are provided with a complex awareness of the world and her or his ability in relation to it.

	- Children are provided with a complex awareness of the world and her or his ability in relation to it.
Emotional	- Children practice facing fears and showing empathy in pretend play when they act out different story narratives with peers. - When asked about what they learn in play, kindergarten students have reported practicing emotional skills related to empathy and self-esteem. - Play has particular benefits for the development of self-regulation skills. Children practice regulating their own behaviour when they plan and follow rules to achieve the goals set out in a play context. Games that involve cues to start or stop an action allow children to practice initiating and inhibiting behaviours, depending on given cues or instructions. Play in this case releases constrained urges towards self-expression. - Creative play like drawing, painting, theatre and photography help promote social competence, **resilience** and **hope**, as well as emotional healing. - Play enables a child to acquire healing for hurts and sadness.
Physical	- Greater participation in fine motor activities at an early age (e.g., stacking blocks, using scissors) is associated with better fine motor skills in childhood. - Rough-and-tumble play and free play with caregivers promotes early motor development. - Physically active play promotes early cardiovascular health and helps to combat obesity and hypertension. - Play in natural outdoor environments is linked to improvements in balance and coordination and allows children to practice locomotor and stability skills. - Sports participation in late childhood has been connected to improvements in **gross motor abilities** and continued physical activity in adulthood.

1. Children form ideas about the world around them. Which materials in the environment can help them form those ideas and how?

2. Children tend to use a more complex language in play than in regular conversation. Which roles do they take up to develop various communication skills?

3. What social and emotional skills are developed through play?

3.7. Common childhood accidents and safety tips

Activity 3.7

Observe the picture above and explain what will happen if children play in this playground? Describe any other play circumstances that are likely to put children's life in danger.

Observe the picture above and explain what will happen if children play in this playground? Describe any other play circumstances that are likely to put children's life in danger.

As children play, they often get accidents. Most of these accidents are minor but there are some which could be even fatal. Many accidents are as a result of negligence or ignorance. This means that a great percentage of children's accidents could be avoided. These include falls, putting foreign objects in the body openings, burns and scalds, cuts, poison/drugs, collisions, smothering, drowning, chocking, bites, and stings.

3.7.1. Falls

Some falls and tumbles are inevitable as children learn to stand, walk, run, and climb. Most aren't serious, but falls are actually the leading cause of nonfatal injuries for children, including <u>head injuries</u>, <u>fractures and sprains</u>, and contusions or bruises.

Some of the most common places children fall from include:

Highchairs; beds, changing tables, and other furniture; stairs; slippery floors; shopping carts; play equipment; unsecured infant seats; baby walkers; windows without proper guards or stops.

Safety tips
- Swings should have something to hold the child.
- Swings should be firm.
- The ground/floor should be free from obstacles e.g. peels (bananas) maze cobs, stones etc.
- Climbing equipment should be age appropriate.
- Right size of furniture.

- Floor should be kept dry.
- There should be order to play.
- Install window guards, stair gates, and guard rails.
- Take your child to age-appropriate playgrounds with soft surfaces under the equipment.
- Never leave a baby unattended on a changing table or other piece of furniture.

3.7.2. Foreign objects in child's body openings

It is easy for young children to put objects such as seeds into their body openings as part of experimentation and exploration. Depending on the seriousness, this can lead to severe harm and may require specialized medical attention.

Safety tips
- Give children big seeds
- Children should be accompanied by responsible adults as they play
- Toy parts should be well checked for firmness

3.7.3. Burns

Burns are caused by direct contact with heat while scalds are caused by hot fluids. Burns are skin damage and deeper tissue caused by contact with fire, heat, electricity, radiation, or caustic chemicals.

Burns are among the most common childhood accidental injuries, and they can happen in several ways:

- Sunburns
- Electrical burns and shock from inserting fingers or objects into outlets or biting electrical cords
- Flames from stoves, lamps, matches, lit cigarettes, fireplaces, and house fires
- Touching hot surfaces, such as stoves, heaters, and microwaved containers
- Hot liquid and steam from pans, cups, hot water heaters, and bath water

Safety tips

- Ensure that there is no fire in the open areas.
- Hot fluids should be kept away from children's reach.
- Corrosive materials should be kept away from children.
- Keep chemicals and matches out of children's reach.
- Avoid smoking especially in bed.
- Children should be dressed in non-flammable clothing.
- Never leave food cooking unattended on the stove and keep pot handles turned out of reach.
- Always supervise children in the kitchen.
- Install and maintain smoke alarms on every floor of your home and near bedrooms.

3.7.4. Poisoning

A poison is a substance which is harmful to the body. In their quest to know, children use their senses to discover the environment. This makes them touch, smell and taste anything, indiscriminately. Some substances are so harmful that they can cause irreparable damage. Poisons and drugs may be swallowed or inhaled through the mouth or nose.

Accidental poisoning can happen from:

- Swallowing shampoo, soap, washing detergent or powder, cooking oil, aftershave, perfume, cleaning products, hand sanitizer, and liquid nicotine used in e-cigarettes

- Eating medication or vitamins, or taking an incorrect dose of medicine

- Exposure to carbon monoxide from gas appliances such as stoves and heaters

Safety tips:

- Get rid of expired or unnecessary medications, both prescription and over-the-counter.

- Keep medicines, personal care products, cleaning solutions, and household chemicals out of reach (and out of sight) of young children.

- Install carbon monoxide detectors.

- Children's play area should be free from poison and any poisonous objects.

- This includes poisonous plants.

3.7.5 Drowning

Drowning remains a leading cause of death for children through age 14, and even small amounts of water pose a danger to very young learners. Take the following precautions to reduce your child's risk:

- Be cautious with young children around water in toilets, bathtubs, and buckets, and ice chests and coolers containing water or ice.
- Make sure hot tubs, spas, whirlpools, and swimming pools are inaccessible to your child.
- Keep your child away from fountains, irrigation ditches, postholes, and wells.
- Supervise your child closely whenever she's playing around water.

Safety tips:
- Make sure buckets and pails are empty when you're not using them.
- Keep the toilet lid down and the bathroom door closed.
- Never leave your child unattended around water.

3.7.6. Cuts

Cuts may be caused by sharp objects such as knives, razor's blades, sticks, edges of blocks and the like.

Safety tips
- Ensure that there are no sharp objects within children's reach.
- Round or curve edges of blocks to get rid of any sharp corners.
- Supervise children's play to make sure that they do not hit one another with the play materials.

3.7.7. Chocking and suffocation

Very young children put pretty much everything into their mouths. And if there's a way for your child to get tangled up in cords or ribbons, she'll probably find it. Here are some examples of everyday objects that can be hazardous to your child:

- Small bits of food (including pet food), toys, batteries, bottle caps, coins, balloons, marbles, pen or marker caps, magnets, buttons, rubber bands, small barrettes or hair bows, and water beads are choking hazards.

- Necklaces, drawstrings on clothes, baby headbands, strings, ties, and ribbons as well as cords on toys, household appliances, window blinds, and other fixtures could cause strangulation.

- Improperly fastened safety harnesses in a highchair or stroller could allow a baby to slip down and become trapped.

- Older cribs with drop rails can trap a baby, and blankets, pillows, crib bumpers, and air mattresses can lead to suffocation.

Safety tips:
- Keep small objects out of the reach of small children.

- Choose toys that are designed for the age of your baby or child – encourage older children to keep their toys away from your baby.

- Beware of clothing with cords, dummies on necklace cords and bag straps – they can easily get caught and pull tightly on the neck.

- Lay your baby on their back to sleep – do not put babies to sleep in an adult bed or on the sofa and do not use pillows as they can suffocate. Never lay your baby face down on a soft surface.

- Keep plastic bags away from young children – they can pull these over their heads and suffocate.

- Nappy sacks, used to dispose of soiled nappies, can also pose a risk – keep them out of the reach of babies and young children.

- Curtain and blind pull cords should be kept short and out of reach of children.

- Keep animals, especially cats, out of your bedrooms – if they jump into cots or beds and fall asleep in the wrong place they could suffocate your child. Attach a net over prams if necessary.

- Check between sofa and chair pillow for small toys that might have slipped down where little fingers can find them.

- Keep choking and strangulation hazards away from young children.

- Discourage children from swallowing foreign objects

- Ensure that children do not eat as they play

3.7.8 .Collisions

Children's agility is amazing. They keep on running from one place to the other.

Safety tips

- Institute safety measures to minimize incidences of bumping onto each other
- Children should be introduced to some order
- There should be enough space for children's movement, especially in areas designed for play.
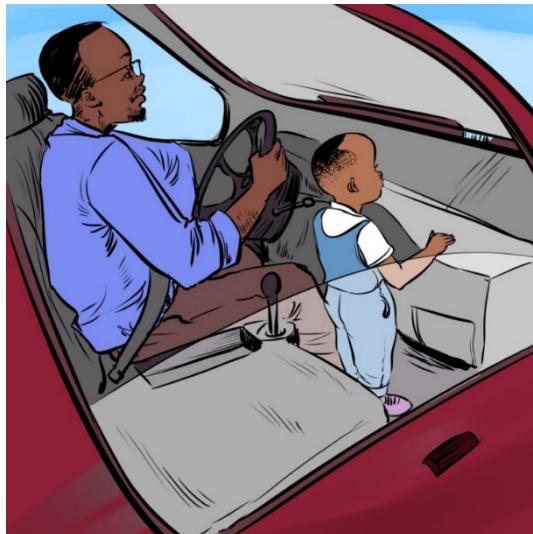
3.7.9. Bites and stings

Children can get stings from bees and wasps. They can also get bites from creatures such as snakes and spiders. They can also put their fingers in holes obvious of the fact that poisonous animals like snakes can hide there.

Safety tips

- It is necessary to block all the holes in the playground.
- Children must be discouraged from putting their hands or fingers in holes.
- Beehives should not be within children's play area.
- Children should be discouraged from playing with harmful animals.

3.7.10 Car safety

Collisions aren't the only thing to worry about when it comes to cars. Other dangers include:

- An incorrectly sized or improperly installed car seat (or not using a car seat at all)
- Heatstroke from leaving a child in a closed car
- Getting accidentally run over

Safety tips

- Make sure your child's car seat is in good condition and properly installed.
- Always fasten seatbelt.
- Place your cell phone or another essential item next to your child's car seat so you won't forget to take your child with you after you park.
- Walk all the way around your car before getting in to make sure no children are playing nearby.
- Keep your parked car locked with windows up so children can't climb inside.
- Do not allow the child to seat at the front seat.
- Lock the doors and windows to avoid the child get out when the car is moving.

Application Activity 3.7

What safety measures will you take to prevent children's accidents or minimize injuries during play activities for every circumstance previously discussed?

End Unit Assessment

1. Your preschool head teacher sends you in another preschool to investigate their children's games in order to select the best ones to be used in your preschools. What details will you focus on in your investigation?

2. Parents in your community want to establish a preschool and want you to assist them in setting up the play area, how will you design that play area to prevent accidents?

3. Based on examples, analyze the importance of play in child's holistic development.

UNIT 4

INTRODUCTION TO CLASSROOM MANAGEMENT

Key unit Competence: Use effective strategies for classroom management

Introductory Activity

A teacher plays different roles in the classroom and the teaching and learning process will involve classroom dynamics. During the process, different behaviors are manifested by learners.

What do you think the teacher needs to do in order to be successful during teaching and learning process?

Describe strategies or techniques that the teacher will use in order to be effective in teaching and learning process.

4.1. Key concepts for classroom management

Activity 4.1

Bearing in mind the work and the role of a teacher, brainstorm and define different terminologies related to what the teacher does as a manager of the classroom.

Classroom management

Classroom management is "the actions and strategies teachers use to solve the problem of order in classrooms" (Doyle, 1986, p. 397). Brophy (1986) cited in Sanchez (2011, p. 2) defines classroom management as a teacher's efforts to establish and maintain the classroom as an effective environment for teaching and learning.

This concept encompasses how teachers deal with issues of supervision, facilitation, and manipulation of the environment and class activities inside another dimension of management: student's actions (misbehaving),

maintenance of discipline and orchestration of the general dynamics of a class. Effective teachers also use rules, procedures, and routines to ensure that students are actively involved in learning (Marzano, Marzano, & Pickering, 2003). They use management not to control student behaviour, but to influence and direct it in a constructive manner to set the stage for instruction (McLeod, Fisher, & Hoover, 2003).

The following are terminologies related to classroom management:

- **Academic learning time:** the portion of engaged time where students are learning.

- **Allocated time:** the amount of time students and teachers spend at school.

- **Asynchronous:** form of communication that does not involve immediate feedback from each other.

- **Authoritarian teacher:** a teacher that emphasizes behavioural control.

- **Authoritative teacher**: a teacher that emphasizes the importance of providing firm direction, which recognizing the unique contributions of each student to the learning process.

- **Conflict resolution**: is a way for two or more parties to find a peaceful solution to a disagreement among them.

- **Congruent communication**: a communication pattern in which the person sends the same message on both verbal and nonverbal levels.

- **Emphatic listening:** where the listener moves beyond sympathy, which strives to console, and tries to connect and genuinely understand the other's perspective.

- **Engaged time/Time on task**: that portion of allocated time spent participating in learning activities.

- **Functional assessment**: comprehensive set of assessment procedures used to determine the function that problematic behaviours serve in the life of the student.

- **Interpersonal collaboration:** a style of direct interaction between at least two co-equal parties voluntarily engaged in shared decision making as they work toward a common goal.

- **Learning center:** a specific location within a classroom designed to meet a specific educational objective.

- **Non-verbal communication:** communications without words that involves tone of voice, eye contact, hand gestures, facial expressions, touching, etc.

- **Paralanguage:** characteristics of language involving volume, rate, pitch, and pronunciation of spoken words.

- **Participation structures:** lecturing, question and answer, discussion, group work.

- **Peer mediation**: technique of using a trained student to act as a facilitator in the conflict of other students.

- **Positive behavioural supports**: activity or technique designed to help students develop appropriate and adaptive behaviours and to overcome existing behaviour challenges.

- **Positive learning environment**: environment characterized by a fundamental respect for all persons, explicit standards for appropriate conduct, positive emotional experiences, and a collaborative recognition that everyone contributes to the success of the learning environment.

- **Procedures/Routines**: guidelines for classroom activities.

- **Rules:** a set of behavioural standards.

- **Self-management:** management of or by oneself; the taking of responsibility for one's own behaviour and well-being.

- **Social skills:** socially acceptable patterns of behaviours that support positive outcomes and avoid aversive situations.

- **Synchronous:** form of communication that involves two-way communication in real time.

Application Activity 4.1

Outline terminologies related to classroom management.

4.2. Components of classroom management

Activity 4.2

With the experience you have got from your first time of entering the classroom until now, you have observed the works of the teachers. Describe the key elements on which classroom management is based.
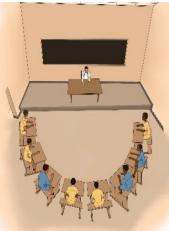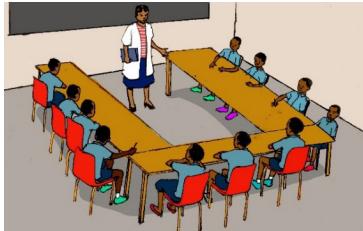
Classroom management is the use of procedures and teaching techniques that promote a safe and efficient learning environment. For primary school teachers, disciplinary method and behavioural expectations are central to this system. As students age, the managerial style of instructors may change to assist students in the development of self-guided learning.

Although every teacher will have a unique style of management to meet each class' needs, the same elements can be found consistently and some of them are described below:

- **Classroom design**

Although often overlooked, the first element of classroom management is intentional design. Use the positioning of your desks, displays, storage and equipment to create a warm and welcoming room. Make sure you have removed all unnecessary and distracting items from your classroom.

Here are some examples of seating plan that will help the teacher access and control learners' behaviour easily.

Semi-circle	U shape	Round table

- **Rules**

Develop rules that foster respect, caring and community in your classroom. Make your expectations for behaviour clear at the beginning of the year by reviewing these rules with students. Continue to reinforce your rules throughout the course, and post them in a visible location.

- **Discipline**

Classroom rules must have concrete consequences. Students will test the limitations of each teacher from the very first day of school. Be firm, fair and consistent. Begin by warning a student and having them confirm their knowledge of the classroom rules. Follow-up continued disruption by issuing demerits, detention, or other official reprimands. Never hit, harass, embarrass or yell at students-this is counterproductive and unprofessional.

- **Scheduling**

Keep your class in order by staying on time and on task. Do class work during class time, leaving plenty of room for in-class assignments. Cramming work and instruction too close to other activities can lead to disruptive behaviour and poor comprehension. There should be space before and after every room change, lunch, and recess for students to settle down. Having a regular daily schedule helps you and your learners prepare for upcoming tasks. Be firm but fair with due dates. Always leave room for extenuating circumstances. Never leave room for procrastination.

- **Organization**

Stay organized inside and out. Keep your student files, assignments, lesson plans and administrative paperwork in order. It sets a good example for your students and keeps you from wasting instructional time looking for materials. Share this system with your students. Post the classroom calendar, homework schedule and assignments on the board. Allow students to see how you take notes. It helps them distinguish irrelevant information from essential details. Encourage self-directed learning by providing students with their own agenda (notebook). You may require students to have their notebooks checked at home or during class.

- **Teaching and learning methods and techniques**

Use active methods and techniques and vary them to meet students 'needs. Learn a lot about each of your student. What are their learning styles? How do they learn best? Do they work well in groups? These observations are crucial when fitting your teaching style to your students' needs.

- **Communication**

Communication is the most important aspect of classroom management. It is essential to have clear and consistent lines of communication with your administration, colleagues, students and parents. Without it you will lose the respect of peers, the attention of students, and the cooperation of parents. Be responsive to the concerns of others. Be flexible and willing to accommodate reasonable requests.

Application Activity 4.2

Describe the components of classroom management for effective teaching and learning process.

4.3. Strategies for classroom management

4.3.1. Classroom management strategies and techniques

Marcus Guido (2018) proposed 20 classroom management strategies and techniques. As a teacher, you are advised to use the ones that best appeal to your situation and teaching style. Universal classroom management strategies include:

- **Model ideal behavior**

Make a habit of demonstrating behavior you want to see, as many studies show that modeling **effectively teaches students how to act** in different situations.

A straightforward way to model certain behaviors is holding a mock conversation with an admin, other teacher or student helper in front of the class. Talking about a test or other relatable topic, be sure to:

- Use polite language
- Maintain eye contact
- Let one another speak uninterrupted
- Raise concerns about one another's statements in a respectful manner
- After, start a class discussion to list and expand upon the ideal behaviors you exemplified.

- **Let students help establish guidelines**

Encourage all students to help you build classroom rules instead of dictating them what they are not allowed to do: near the start of the year or semester, start a discussion by asking students to define acceptable and unacceptable behaviors during lessons? The teacher may be shocked at the strictness of some proposed rules.

Avail rules

Avail printed copies of list of classroom rules that the class discussion generated. This an evidence that that you respect their ideas which motivate students to adhere to them.
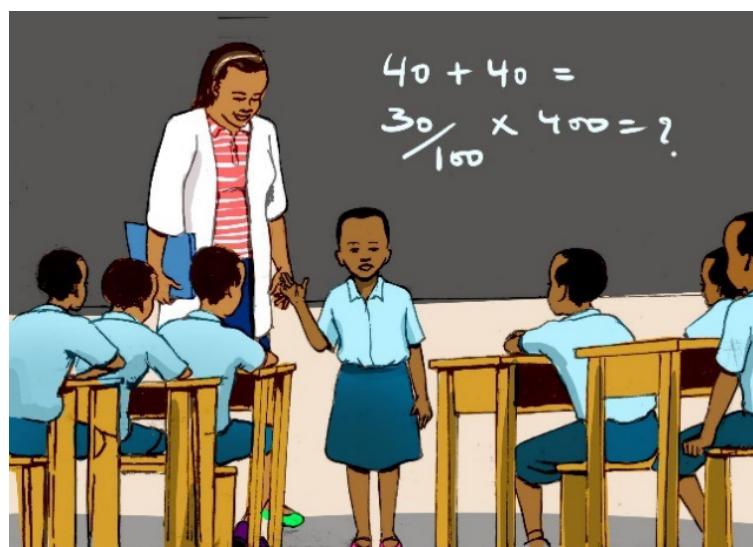
- **Avoid punishing the class**

Address isolated behavior issues instead of punishing an entire class, as the latter can hurt your relationships with students who are on-task and thereby jeopardize other classroom management efforts. Instead…., call out specific students in a friendly manner. For example:

- "Do you have a question?", instead of "Stop talking and disrupting other students".
- "Do you need help focusing?", instead of "Pay attention and stop fooling around while I'm talking".

This basic approach will allow you to keep a friendly disposition, while immediately acknowledging poor behavior.

- **Encourage initiative**

Promote growth mindset, and inject variety into your lessons, by allowing students to work ahead and deliver short presentations to share take-away points.

Almost inevitably, you'll have some eager learners in your classroom. You can simply ask them if they would like to get ahead from time-to-time. For example, if you are reading a specific chapter in a textbook, propose that they read the following one too. When they deliver their subsequent presentations to preview the next chapter on your behalf, you may find that other students want a bit more work as well.

- **Offer praise**

Praise students for jobs well done, as doing so improves academic and behavioral performance, according to a recent research review and study (Some examples of these researches are needed here). When it is sincere and references specific examples of effort or accomplishment, praise can:

- Inspire the class
- Improve a student's self-esteem
- Reinforce rules and values you want to see

Perhaps more importantly, it encourages students to repeat positive behavior. Let's say a student exemplifies advanced problem-solving skills when tackling a math word problem.

- **Use non-verbal communication**

Complement words with actions and visual aids to **improve content delivery,** helping students focus and process lessons.

Many differentiated instruction strategies and techniques are rooted in these communication methods. For example, running learning stations- divided sections of your classroom through which students rotate - allows you to deliver a range of non-spoken content types. These include videos, infographics and physical objects such as counting coins.

- **Give tangible rewards**

Reward specific students at the end of each lesson, in front of the class, as another **motivational and behavior-reinforcement technique.**

- **Make positive letters and phone calls**

Keep students happy in and out of class by **pleasantly surprising their parents,** making positive phone calls and sending complimentary letters home. When the occasion arises, from academic effort or behavioral progress, letting parents know that their child has a trickle-down effect. They'll generally congratulate their learners; their learners will likely come to class eager to earn more positive feedback. This can also entice parents to grow more invested in a child's learning, opening the door to at-home lessons. Such lessons are a mainstay element of culturally-responsive teaching.

- **Build excitement for content**

Start lessons by previewing particularly- exciting parts, hooking student interest from the get-go. As the bell rings and students settle, go through an agenda of the day's highlights. The goal of this classroom management technique is to immediately interest students in your agenda and thereby dissuade misbehavior.

- **Offer different types of free study time**

Provide a range of activities during free study time to support students who struggle to process content in silence, individually. You can divide your class into teams to carry out different activities. By running these sorts of activities, free study time will begin to benefit diverse learners. This should contribute to overall classroom engagement.

- **Write group contracts**

Group contracts should be based on expectations that students have for each other, and you have for them. You can gather the class's thoughts by holding a discussion about what the ideal group member does, and how he or she acts. Once you've written the contract, encourage students to come up with consequences for violating expectations.

By having them sign a fresh version of the contract before each group task and project, you're empowering them to hold each other accountable.

- **Assign open-ended projects**

Encourage students to tackle open-ended projects — projects that don't demand a specific product — to allow them to **demonstrate knowledge in ways that inherently suit them.**

This starts by giving the class a list of broad project ideas, asking each student to choose one. Be sure to provide a rubric for each project that clearly defines expectations. By both enticing and challenging students, you should notice that they'll:

- Work and learn at their own paces
- Engage actively with appropriate content
- Demonstrate knowledge as effectively as possible

With these benefits, students may actually look forward to taking on new projects.

4.3.2. Classroom management strategies for individual students

- **Use educational technology that adjusts to each student**

Give students who struggle to process your content opportunities to try **educational technology that adapts to their needs.** It also offers feedback to help them solve specific mistakes, as they answer questions that use words, charts, pictures and numbers.

- **Interview students**

Interview students who are not academically engaged or displaying prosocial behavior to **learn how to better manage them.**

Set time to be aside with each student and ask those students about:

- What helps them focus?
- Who they work well with?
- Their favorite types of lessons.
- Their preferences in-class activities
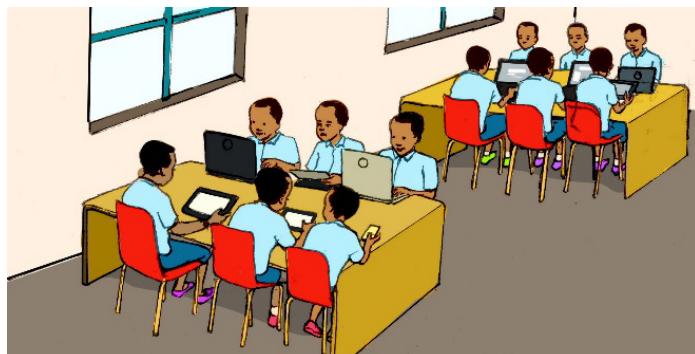- Which kinds of exercises help them remember key lesson points

Note their answers to come up with activities and approaches that engage them, thereby limiting classroom disruptions.

- **Address bad behavior quickly**

- **Avoid hesitation when you must address bad behavior,** especially when a student breaks a documented rule. Acting sooner than later will help ensure that negative feelings — whether between students or you and a student — won't fester. Failure to act can result in more poor behavior, leading to needlessly difficult conversations.

- **Keep in mind that it is valuable to talk to the student in private.** Emerging research shows that punishing students in front of peers has "limited value."

• **Consider peer teaching**

Use peer teaching as a classroom management strategy to allow the top performers to engage and educate disruptive and struggling students. Peer teaching activities, such as pairing students together can be especially beneficial for students who suffer from low confidence and poor interpersonal skills.

If these strategies work especially well for individual students, you should see similar success by using them as class-wide student management techniques.

Application Activity 4.3

Describe different techniques of classroom management

4.4. Importance of classroom management

Activity 4.4

With the knowledge you have about classroom management and other information such as: When teaching, the teacher needs to achieve his or her learning objectives. Learners in the same process also need to benefit from the same activities. There will be different movements, behaviors which may be good or bad; within a lesson - period, the teacher and learners will also use different teaching and learning resources. In consideration of all the above elements, justify the reasons why a teacher needs to have classroom management skills.

Effective classroom management paves the way for the teacher to engage the students in learning. The following highlight the importance of classroom management:

- **Effective teaching**

Classroom management strategies help to create an organized classroom environment that is conducive to learning. Learners know the expectations in different types of learning situations. For example, learners would know that when working in small groups, they talk in quiet voices and take turns talking. They might each have a specific job within the group.

- **Efficient use of time**

Taking time before school starts to create routines and procedures saves you time in the long run. When the children know what to do, it becomes a natural part of the routine. After a few weeks, you don't need to tell them what to do. The students know they get their planners out, write in homework assignments and gather all of their materials at the end of the day, for example.

- **Consistency**

A teacher with strong classroom management skills creates consistency for his students. The learners know what to expect every day when it comes to the routine activities. Your students may fare better when you're gone if you have set expectations for everyday tasks. They know how the classroom runs so they are able to help the substitute run the classroom. For example, if the learners know they're supposed to enter the room and start working on a math problem on the board, a substitute doesn't have to spend his time corralling the learners or trying to keep them occupied while everyone arrives.

- **Fewer behavioral problems**

The main goal of classroom management is to reduce misbehavior in the classroom. Effective classroom management gives the students little time to misbehave. Because the expectations are clearly explained, the students know what they need to do. Transitions in particular sessions are easier to control when a teacher has strong classroom management skills. The expectations for behaviors that are part of a classroom management plan give students boundaries, as well as consequences.

- **To optimize student learning and achievement**

Effective classroom management is a crucial component of ensuring that all students achieve in your classroom where children feel safe and appropriately challenged.

- **To maintain a positive classroom atmosphere**

This is done when there are well established rules, procedures and standards, and well implemented classroom routines. There is also a sense of respect and community among students and teachers.

- **To manage classroom resources effectively**

School management will instill in learners the ability of having all resources well-arranged and managed.

Application Activity 4.4

With clear examples, discuss the significance of classroom management for effective teaching and learning process.
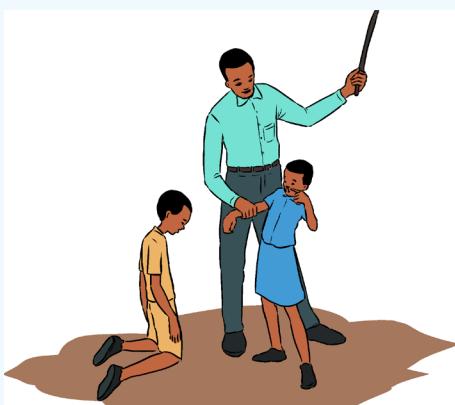
End of unit Assessment

To this end you have knowledge about classroom management. As a future teacher, think of any behavioral problem that can arise in the classroom. Suggest and explain strategies you can apply to prevent and or handle it.

UNIT
5

POSITIVE DISCIPLINE

Key unit competence: Apply a range of strategies to prevent and respond to misbehaviour in a positive and respectful manner.

Introductory Activity

Observe the above image and explain what is happening? What can you see on the image? What do you think the adult people are doing? What is the difference between the two pictures?

5.1. Concepts of positive discipline

Activity 5.1

Suzanne and Tom are in P3 A. On an examination day, they arrived 30 minutes late to school for their after-noon session. They fear to enter and stayed outside. When the teacher saw them, she called them to come closer. She asked them why they were late. After hearing their explanations, the teacher allowed them to pass the exam. After two hours, all students submit their copies except Suzanne and Tom because the teacher gave them additional 30 minutes. In the other class P3 B, two pupils were also late about 5 minutes, their teacher refused them to pass exam. She chased them and gave them 0 out of 50 (fifty) marks.

- Those two teachers have reacted after noticing the latecomer. Which one do you think have done it well? Justify your answer.
- Based on the above story, try to name and explain what teacher Suzanna has done.

5.1.1. Definition of positive discipline

The idea of discipline being synonymous with punishment is ingrained in our psyche. The first thing we think of when we hear the word "discipline" is usually something negative.

However, the word discipline originates from the Latin word 'disciplina' which means teaching, which in turn comes from 'discipulus' which literally translates to pupil.

For whatever reason, over the years, discipline has gone from meaning "to teach" to "to punish"! Today we explore "**positive discipline**" an idea that focuses on reverting things back to the roots. The following are ideas about positive discipline:

- When children do something wrong, instead of punishing them, teachers or parents teach and guide them to set the behavior right.
- Positive discipline is non-violent and is respectful of the child. It is an approach to teaching that helps children succeed, gives them information, and supports their growth and their learning.
- Positive discipline is based on children's rights to healthy development, protection from violence and participation in their learning and environment.

- Positive discipline is a tool for parents, caregivers, teachers and community members to use to assist them in managing children's behavior without abusing them emotionally, physically, socially, mentally or spiritually. The way children learn and develop differs, because no two children are the same. Children grow and develop patterns but at their own individual pace. There are set ages and stages for child development.

To sum up, 'Positive Discipline in the classroom' is, according to Nelsen (2017), a program that teaches important social and life skills, in a manner that is respectful to both the adults and the children in the situation; raising young people to be responsible, respectful, and resourceful members of their community. It is based on the theory that children who have a sense of connection to their community (home and school) and whose input is regarded as meaningful are less likely to engage in misbehavior. To be successful members of the community children need to be taught the necessary social and life skills. Positive Discipline is based on the understanding that discipline must be taught and that discipline teaches.

5.1.2. Understanding discipline versus punishment

Punishment is an action or penalty that is imposed on a student for misbehaving or breaking a rule. However, the impact on students can be very harmful, from inducing physical or emotional pain to not being effective in reducing future misbehaviors. Punishment is used to control the behavior of students, in two different ways:

- Negative discipline involves verbal disapproval and reprimands.
- Corporal punishment involves severe emotional or physical pain.

Unfortunately, both forms of punishment focus on the misbehavior and may do little or nothing to help a child behave better in the future. Moreover, the child learns that the adult is superior, and the use of force – be it verbal, physical, or emotional – is acceptable, especially over younger, weaker persons. This lesson can lead to incidents of bullying and violence in school, where older children dominate younger ones and force them into giving the bullies money, food, homework, or other valuable items.

Furthermore, rather than leading to a child with inner control, such punishment makes the child angry, resentful, and fearful. It also causes shame, guilt, anxiety, increased aggression, a lack of independence, and a lack of caring for others, and thus greater problems for teachers, caregivers, and other children.

Alternatively, **positive discipline** is the practice of training or teaching a student to obey the code of behavior or rules in both the short and long term. Instead of controlling the behavior of students, teachers can use positive discipline to develop a child›s behaviors through self-control and making positive choices.

The following table summarizes some of the positive features of discipline as opposed to what a punishment-oriented environment is like:

Positive discipline is	Punishment is
Giving children positive alternatives	Being told only what not to do
Acknowledging or rewarding efforts and good behavior	Reacting harshly to misbehaviour
When children follow rules because they are discussed and agreed upon	When children follow rules because they are threatened or bribed
Consistent, firm guidance Positive, respectful of the child	Controlling, shaming, ridiculing Negative and disrespectful of the child
Physically and verbally non-violent	Physically and verbally violent and aggressive
Logical consequences that are directly related to the misbehaviour	Consequences that are unrelated and illogical to the misbehaviour
When children make amends when their behaviour negatively affects someone else	When children are punished for hurting others, rather than being shown how to make amends
Understanding individual abilities, needs, circumstances, and developmental stages	Inappropriate to the child's developmental stage of life; individual circumstances, abilities, and needs are not taken into consideration
Teaching children to internalize self-discipline	Teaching children to behave well only when they risk getting caught doing otherwise
Listening and modelling	Constantly reprimanding children for minor infractions causing them to tune us out (ignore us; not listen to us)
Using mistakes as learning opportunities	Forcing children to comply with illogical rules "just because you said so"

Directed at the child's behaviour, never the child (your behaviour was wrong)	Criticizing the child, rather than the child's behaviour (you are very stupid; you were wrong)

5.1.3. Criteria for positive discipline

The following are the criteria for an effective positive discipline:

- **Helps children feel a sense of connection** (Belonging and significance).

- **Is mutually respectful and encouraging** (Kind and firm at the same time.).

- **Is effective long - term** (Considers what the child is thinking, feeling, learning, and deciding about himself and his world – and what to do in the future to survive or to thrive.).

- **Teaches important social and life skills** (Respect, concern for others, problem solving, and cooperation as well as the skills to contribute to the home, school or larger community.).

- **Invites children to discover how capable they are** (Encourages the constructive use of personal power and autonomy.

5.1.4. Importance of positive discipline

The purpose of positive discipline is to teach in such a way that children can develop their inner guidance system so they can function responsibly by themselves. Because adults won't always be around to tell children what to do, we must instill inner discipline and help children develop the ability to think, judge, and make decisions on their own.

Youth need to learn self-discipline with little issues, so they have the experience and confidence to deal with larger issues later. This process takes time, but the end product is worth the investment.

Using positive discipline techniques help teachers to overcome the many challenges in the classroom and help students learn and make better choices in the future. In fact, using positive discipline in the classroom not only increases academic success in the classroom but provides many other benefits, including:

- Students show respect for the teacher
- Students are on task and engaged
- Less disciplinary measures are needed

- Fewer suspension and expulsions
- Students see rules as fair
- Attendance improves

Differentiate Positive Discipline and Physical and Psychological Punishment

5.2. Principles of positive discipline

Explain how a positive discipline should be.

The positive discipline approach is based on several education principles. As explained in the following paragraphs, positive discipline is:

- **Holistic:** The approach recognises that all aspects of children's learning and development are connected to each other. For example, understanding children's social development helps to understand why their behaviour and motivation levels may change. The positive discipline approach is based on understanding the links between individual development, learning, behaviour and academic achievement, family relationships and community health.

- **Strengths-based:** It recognises that all children have strengths, capabilities and talents, and aims to emphasise and build on their abilities, efforts and improvements. Mistakes are not seen as failures, but as opportunities to learn and improve. Takes children's developmental stages into account and aims to discipline in an age-appropriate way.

- **Constructive**: Positive discipline emphasizes the educator's role in building learners' self-esteem and confidence, developing independence, and fostering their sense of self-efficacy. Rather than punishing learners' academic or behavioural mistakes, the educator explains, demonstrates and models the concepts and behaviours to be learned. Rather than trying to control learners' behaviour, the educator seeks to understand it and to guide it in a positive direction. Positive discipline focuses on achieving educational goals in a safe learning environment.

- **Inclusive:** Positive discipline is respectful of children's individual differences and equal rights. All children are included in the educational process, and all are entitled to the same standard of education.

In positive discipline, the emphasis is on teaching children's individual needs, strengths, social skills and learning styles within an integrated classroom – to the best of the school's ability. This includes identifying and understanding learning challenges, finding ways to teach every child effectively and adapting the classroom environment to ensure each one's success.

- **Proactive:** The focus is on helping children to succeed in the long-term. Rather than responding to problems with immediate or short-term reactions, the focus is on understanding the roots of learning and behaviour difficulties and putting in place strategies that will help to address issues in the long-term.

- **Participatory:** It works on the principle that children are more interested in learning when they feel part of the process. Learners are motivated to learn when they feel engaged in the learning process. Positive discipline involves learners in making decisions. Rather than force and control, this approach seeks out learners' opinions and perspectives, and involves them in creating a classroom environment that supports learning.

- **Dignity**: Positive discipline invites teachers to respect the child's dignity and ensure mutual respect.

- **Understanding**: Positive discipline invites teachers to respect the child's motivation and life views, to understand the reasons behind their behaviour and tackle the negative beliefs behind their behaviour rather than trying to change the behaviour itself.

- **Fairness**: Positive discipline promotes justice, fairness and non-discrimination among children.

- **Personal development**: teachers should respect personal development stage when using positive discipline. That means positive discipline respects the child's developmental needs and quality of life.

- **Social and life skills:** Positive discipline promotes active participation and aims at developing the child's character with a set of personal skills such as: self-discipline, social skills, cooperation, effective communication, problem solving, respect, solidarity, and concern for others.

- **Potential and autonomy**: Positive discipline encourages children to discover their potential and capacities and to make a constructive use of personal power and autonomy. Positive discipline respects the child's motivation and life views

- **Encouragement instead of praise:** this shifts the focus from success to effort and improvement and builds long-term self-esteem and empowerment. The child's participation is maximized.

Application Activity 5.2

Read this case study and say whether the reaction of the teacher respects principles of positive discipline. What could the teacher do differently?

Sabina: I live two kilometers from my school. In the morning, sometimes I have to fetch water and sweep the compound around our house before I can go to school. I have no money for transport, so I walk to school. I know that being beaten is just the way things are at our school. Sometimes, because I am tired, I take it easy. I will just take the three canes. Sometimes, I try to hide in the bush until the teacher leaves, but most of the time there is no escape. I just have to take the beating.

Sabina's teacher: I have to make sure the children understand that coming late to school is not acceptable. They have to know that there are consequences for their lateness. I always give them three canes. Some of them are even used to it. They just offer themselves up because they know I don't listen to any excuses.

5.3. Positive discipline approach

Activity 5.3

Read the case study below, and answer the questions that follow

MUHIRE is the youngest of eight children in his family. His mother died when he was a baby. His father works away. From a young age MUHIRE was a burden on those who looked after him. He lacked the nurture of his mother and his brothers beat him for behaviour they found annoying, such as spilling food or wetting the bed. He struggles in school. He often feels embarrassed about finishing last, but he is proud of his physical strength. At the start of class, one of the smartest, KALISA made a joke about MUHIRE's school shoes, which were in a bad condition. Others laughed. Feeling embarrassed and wanting to recover his self-respect, MUHIRE hit KALISA, pushing him over. The teacher ordered MUHIRE to kneel. Upset and humiliated, MUHIRE swore under his breath. The teacher responded by striking him across the back with a stick.

1) How the teacher punished MUHIRE?
2) What do you say about the approach used by that teacher when handling MUHIRE'S bad behaviours?
3. What are the best strategies that the teacher could have used to address the situation?

5.3.1. Positive discipline strategies

There is no magic formula that will answer all disciplinary questions. Nor is there one perfect way to discipline. No method is going to work with every child or in every situation. What we can do is to commit ourselves to a positive approach in our discipline...one that includes respect, clearly defined expectations, setting limits, and using reasonable consequences.

A positive approach to discipline helps adults and children work together rather than against each other. It preserves a child's dignity and self-esteem while encouraging cooperative, positive, and loving relationships. Learning to use positive discipline is based upon mutual respect and cooperation, which can have a powerful effect on helping a child develop confidence and a strong self-image.

The short-term goal of discipline is to guide behavior on a daily basis and to protect children from hurting themselves and others. The long-term goal is to help children become self-disciplined and responsible for their own behavior. They need to be able to rely on themselves.

Motivating a child to cooperate is the key to effective discipline. When teacher's relationship with a child is a series of power struggles, the teacher is bound to lose. We want children to have a clear understanding of what is expected of them. To accomplish this goal, teachers don't have to humiliate or harm a child's self-esteem or body. Teachers can guide children with love and firmness toward the goal of self-discipline and stable self-esteem.

Here are a few **positive discipline strategies** to try:

- **Use the power of the positive**. Positive statements tell a child what to do rather than what not to do, and they promote a more positive environment for learning and nurturing self-esteem. Given half a chance, children want to please teachers. By using encouragement as an incentive for behaving appropriately, we can build a child's positive self-image and sense of individuality because we are placing the power in their hands.

- **Hold a positive expectation**. Children are very sensitive to teachers' attitudes about them. If teachers perceive a child as responsible and cooperative, teachers unconsciously give them more opportunities to demonstrate their competence and develop a sense of responsibility. The more trust and confidence you place in a child, the more the child learns that they are worthy of trust, and, in turn, the more trustworthy they become.

- **Give directions in a positive way**. Teachers request children what to do in a clear and respectful language.

- **Acknowledge positive behavior**. Perhaps the most significant element of a positive approach to guiding behavior is acknowledging behaviors we want to be repeated. Most children spend great stretches of time behaving well. This deserves recognition. Positive recognition shows a child they can get the attention they need without misbehaving.

  If teachers focus their time, attention, and energy on the positive, negative behavior will soon decrease and the positive will increase. By noticing children doing things right, teachers bring out the good that is already there.

  By acknowledging positive behavior, teachers offer encouragement in the form of descriptive praise.

- **Be specific in your encouragement** -- describe in concrete terms what you see and how you feel. Rather than "You're doing a good job." tell the child, "I like the way you cover your notebook by yourself this morning." The child's conclusion: "I'm responsible and can take care of my things."

- **When giving encouragement, focus on the action, not the doer**. Avoid statements like "You're an angel." or "You're terrific!" that set unrealistic standards for a child to live up to. Effective praise should be a way of celebrating rather than evaluating a child.

Some practical strategies to be used in behaviour management

- **Teacher–child relationship**

The heart of effective behaviour management is building positive relationships with children. This allows the teacher to connect to the children forming a strong foundation from which behavioural change can take place.

The following are ways of building relationships:
- Welcome the children as they enter the classroom.
- Ensure all children understand what is expected of them.
- Create a positive environment where each child feels relaxed and accepted.
- Show an interest in each child's family, talents, goals, likes and dislikes.
- Engage with the children during lunchtime and playtime.
- Treat each child with respect, never embarrass or ridicule.
- Share all successes with the class.

- Believe by recognizing their strengths that every child has the ability to learn and achieve.
- Involve the children in making decisions regarding rules and activities within the classroom.

- **Language used in positive approach**

It is important to focus on positive rather than the negative statements when interacting with children, guiding them towards positive outcomes rather than highlighting their mistakes.

Positive talk	Negative talk
Mugabo, I 'd like you to look at the board. Thank you	Mugabo, stop disturbing and look at the board.
Alice, if you know what day of the week it is, raise your hand. Good girl.	Mugabo, stop disturbing and look at the board.
Peter, remember to walk down the corridor sensibly. Thank you.	Hey, Peter stop running down the corridor.
Examples of positive error correction	**Examples of negative error correction**
- Can someone help him/her? - Good trial ! - Can you try again, you are almost there. - Thank you for trying. - Choose a friend to help you answer. - The teacher can ask the question in a different ways, give them a hint.	- Wrong! - You are stupid! - Anyone else? - Is he/she correct?

- **Children's manners and respect**

Many children do not have good manners modeled at home. It is therefore important for teachers to model and reinforce manners to help develop children's social skills. Manners not only make a good impression on others but also make us feel good about ourselves.

Examples:

- Always acknowledge and reinforce when a child demonstrates good manners.

- Encourage children to treat others with respect by modeling the desired behaviour.
- Inform the children of the importance of treating others the same way they like to be treated.
- Role play various situations to demonstrate appropriate responses.
- Understand the roots of child's behavior.

- **Rules**

Rules create clear expectations for the children and need to define what acceptable behaviour is. These must be reinforced on a regular basis and placed in a visible place on the classroom wall. Include the children in developing the rules as this will give them ownership and they will be more likely to accept their terms and conditions and therefore comply.

In general, there are a number of difficulties in laying down formal written rules many people would argue that the behavior of class, like that of most primary, face to face groups, should be governed by conventions rather than by edicts. Rules require to be expressed in children's behavior.

Tips to be considered when designing classroom rules:
- When designing your classroom rules, they should be: – clear – comprehensive – enforceable.
- Write the rules in a positive way and avoid using 'don'ts'. For example, 'I will walk sensibly around the school' rather than 'Don't run around the school'.
- Children require understandable directions. Hence, the rules need to be specific and explainable, e.g. telling children to 'Be good'or 'Don't do that' is too vague.
- Display the class rules and go over them with the children on a regular basis.
- Check children's understanding of the rules.
- Explain the rationale behind the rules.
- Be consistent in enforcing the outcomes for breaches of the rules when an incident occurs.

Note:

Even if the above strategies may work to shape the positive discipline, teachers should remember that teaching by example is powerful! Teachers as role models.
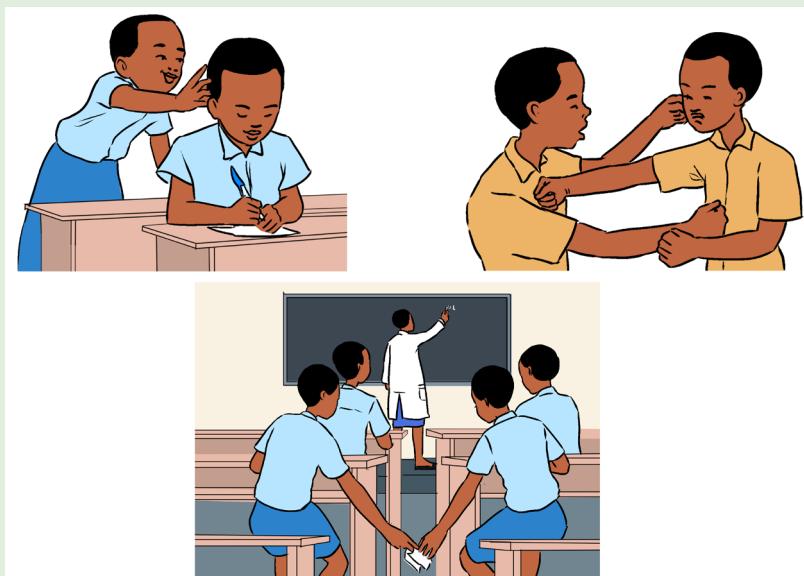
Teachers are an extremely important role model in children's lives. Children will notice how they approach stressful situations, resolve conflicts, solve problems, and conduct yourself, in general, around other children and adults.

Teachers need to recognize that the easiest way to reinforce positive discipline is to serve as a role model of appropriate behavior.

Teachers must model the behavior they want to see in children. When teachers lead, guide, and help children improve their choices, they are literally guiding children along paths that will give them the best chance for growth, happiness, and success. Deciding to use a positive approach to guiding young children can create a bond and an understanding that can last throughout a child's entire life!

5.3.2. Strategies for handling positively the unwanted behaviors

Activity 5.3.2

Observe the above illustrations and explain what is happening? What strategies can you use to handle those bad behavior?

Helping children correct behavior is taking the time to give feedback on the choices they made and discussing why their choices are important so they can make a wiser choice next time.

Handling unwanted behavior depend on your child's age, stage of development, personality and many other factors.

Here are some strategies to handle positively unwanted behaviors :

- **Redirect to another activity**

Redirection; switches from one activity to another works well with toddlers and sometimes older children. When you redirect your child, be sure to explain with words that teach her what you don't want her to do.

- **Use logical consequences**

Apply clear consequences for your child's action that relate to the behavior. For example, if your preschooler throws pieces of paper on the floor, make sure she/he helps you clean up the mess. When the mess is cleaned up, the consequence is over.

The connection between students' misbehavior and teacher-imposed sanctions should be explained carefully. This connection, too, is taught and reviewed as needed.

When there isn't a clear consequence, you can take away a privilege. For young children this must happen right away. For example, a child who is playing too roughly can be made to play away from other children for a short time.

- **Encourage problem-solving**

Solving problems helps children learn about the consequences of her actions. Allow your learners to help find a solution to misbehavior and she will be more likely to make it happen.

Some **general guidelines** to be considered when handling any kind of classroom problem include the following:

- **Focus on the misbehaviour not on the pupil who misbehaved.** While handling with misbehaviour one should remember not to humiliate the disruptive student or make him lose face in front of their peers. Humiliation attacks student's status in the eyes of peers and he or she may then use a variety of strategies, all aimed at teacher's authority, in order to re-establish it. If the teacher tells the student "You're the worst behaved person in this classroom" it impacts on him as a person and is unlikely to be effective.

- **Act immediately and as quiet as possible when a problem appears.** Lack of response can be interpreted as "I don't" mind, you can carry on" and a small problem can become a bigger one. Remember that loud comments may provoke loud responses and the whole thing escalates. A fast, swift and quiet reaction is the best. Soft reprimands keep a problem more private and do not encourage loud denials and protests.

- **Reprimand in private.** It is not advisable to discuss student's misbehaviour in front of the rest of the class. A student will respond better when being given reprimand in private where she or he does not have to impress their peers. While reprimanding after the lesson the teacher avoids being get into useless debate during which the pupil wants to gain points with the other students or extra attention or show the teacher of. Disciplining the disruptive pupil in front of their peers can also have a negative effect on student's self-esteem. It will be useful to tell the student how you see the situation and how you fill about it and spell the consequences if the behaviour continues.

- **Avoid raising your voice.** Shouting to assert one's authority is a sign of losing control and raises the overall level of the noise in the classroom. When the classroom begins to get noisy the teacher may try to out-shout their students. The students may become quiet for a while but then they may get louder than they were before the teacher raised his voice. That is why quiet and soft voice can be often a better way to grab their attention.

- **Avoid anger.** The teacher who remains calm is far more effective than the one who easily loses his temper. The loss of self-control may lead to the situation when the teacher says and does things that he comes to regret later. The heated outbursts do nothing either for teacher's standing in the school or for the improvement of students' behavior.

Application Activity 5.3.2

Based on the meaning of this Rwandan proverb "*Inkoni ivuna igufwa ntivura ingeso*", propose some advice to a teacher who always beats children for coming late.

5.4. Promoting positive discipline in schools

Observe the image and interpret what is happening. What do you say about positive discipline at this school?

The positive discipline approach can play a key role in creating safer schools, where children's rights and dignity are respected, and they are equipped to achieve their full potential. Rather than enforcing good behaviour through fear, the teacher plays the role of mentor and guide, and the school makes a long-term investment in a child's development. In so doing the approach not only supports children's full development, but also improves the school environment by eliminating fear, teaching children self-discipline and encouraging greater pleasure and engagement in learning.

It is important to use a holistic approach to addressing school safety and discipline. The system adopts a whole-school approach that entails all members of the school community, including the School General Assembly Committee principals, head teachers, educators, non-teaching staff, caregivers, learners and communities working together to improve schools.

Teachers hold the keys to a better future for all. They inspire, challenge and empower innovative and responsible global citizens. They get children into school, keep them there and help them learn.

Nothing can replace a good teacher. Some learners are proud of their teachers. They normally said that they really like their teachers because the latter never scold them when they make mistakes in class. Instead, teachers gently explain it again, so that learners can learn from their mistakes without feeling ashamed and scared.

Unfortunately, not all children have the same experience with their teachers. Corporal punishments, together with other forms of discipline that involve verbal abuse, are still a regular part of the school experience for many children. The use of this method and tolerance towards it persist due to a belief that corporal punishment is an effective way of educating children.

Corporal punishment in school has been prohibited by the Law; nevertheless it sometimes continues to be practiced. Some students dislike school due to violence, including physical and verbal abuse by teachers and peers.

Corporal punishment is not an appropriate way to discipline children. It scares children, makes them sad, feel humiliated and confused, and can potentially lead them to become aggressive in return. Violent discipline and its negative impacts, such as low academic performance, poor school attendance, and school dropout, affect children's psychosocial well-being. It can have severe, long-lasting consequences on a child's future. Eliminating violence in schools, can give children back the desire to learn in a peaceful and conducive school environment.

All teachers are called for creating a conducive, enabling and safe learning environment. There is no stronger foundation for sustainable development than quality education, provided by well-trained and motivated teachers who are understanding, empathic, encouraging and respectful.

Steps to implement positive discipline in schools
- **Get to the roots**. Learn about students' backgrounds and what might lead to different behaviours. Do not make assumptions. Ask questions. Take a student away from other students and ask for an explanation, respecting dignity and privacy. Ask "Why?" questions to help students understand themselves.

- **Understand consequences**. Help the student understand the consequences, for themselves and for others. This develops critical thinking and taking personal responsibility for actions. It might be helpful, to complete a "think sheet" for students think through the roots and consequences of their actions, as well as alternative reactions.

- **Experience consequences**. The most effective punishments are the natural consequences of our actions. If a child is caught writing drawings on a desk, he may be asked to spend time cleaning desks.

- **When necessary experience punishment**. Sometimes it is not possible to learn from a natural consequence and punishment is necessary. Punishments must never involve physical pain or humiliation but can involve loss of privileges or extra work.

- **Restore confidence in the student**. Students must always understand a punishment as an opportunity to learn, from an adult who cares. Students can tell the difference between punishment out of love and out of anger or power. When students feel appreciated, they will be able to better change their behaviour. Corrective behaviour should involve restoration of respect for the student.

- **Pro-actively praise good behaviour**. Good behaviour, should be praised and rewarded, particularly after corrective punishment. Be specific in your praise. Rewards can include approval or specific privileges and freedoms.

Application Activity 5.4

What will you do to promote positive discipline at the model schools during school practice?

5.5. Preventing discipline problems

Activity 5.5

"*Prevention is better than cure*".

Interpret the above proverb in the case of positive discipline.

"*Prevention is better than cure*". (Proverb). The teacher should ensure the following in order to prevent discipline problems:

- **The physical environment:**

Students learn best in a comfortable classroom environment. Paying attention to these parameters may increase the likelihood that students will attend to their learning tasks with minimum distraction and disruption.

- **Meeting individual differences**

Some causes of behavior disruptions are related to instruction, and you can do something about this by recognizing that, for some students, the assignments are not consistent with their abilities. These include students' inability to do the work, sheer boredom, lack of challenging assignments, and expectations that are too high. Counter these possibilities by recognizing each student's uniqueness. Unmet instructional needs may cause your students to engage in attention getting behavior that undermines your classroom control. Here are some ideas for meeting instructional needs:

- **Planning**

Thorough and well-formulated planning will help you cut down on potential disruptions. If your planning allows every student to succeed, you are maximizing your chances for effective discipline. It is far better to underestimate your students' abilities during the first few days than it is to go over their heads. The worst thing that can happen is that they will feel successful.

- **Instruction**

During instructional time, you can cut down on potential disruptions by adhering to principles of good teaching. Although good instruction cannot guarantee good discipline at all times, you can reduce potential problems by considering the possibility that a strong link exists between the two. It is even more important to minimize disruptions through effective classroom management or preventive discipline in middle and high school when the periods are so short. Time is of the essence in all grades, but in secondary school you don't want to spend the whole period settling the class down or trying to get their attention.

- **Emotional objectivity**

Emotional objectivity is a key construct of an effective classroom management plan. Emotional objectivity requires that no matter how upset you may be with a student, you continue to interact in a professional manner. If you are perceived as overreacting or biased, the offender will blame you for being "prejudiced" or "making a big deal out of nothing" instead of taking responsibility. When assessing a penalty or consequence, you need to be firm and clear without apologizing to or feeling sorry for the student. Focus on the behavior and the causes instead of personalizing the behavior as an attack on you, identifying with the student, or seeing the fault as your own. Anticipate which students might act out and then purposely talk yourself into positive expectations for the day or period.

Tips to prevent discipline problems

- **Be organized.** Disorganization leads to lulls in your class which lead to learners getting bored and misbehaving. Plan your lessons well, have your supplies ready, and be as organized as possible. Think right now about what items you seem to be constantly displacing and figure out a system to help you keep track of them.

- **Deal with problems while they're still small.** Don't wait to deal with issues until they're big. Instead, address every small issue that comes up in your class. Dealing with them while they're small will help to keep them from growing into bigger, more overwhelming problems.

- **Have good control procedures.** Intentionally develop procedures that prevent problems. For example, requiring students to use a cover sheet will prevent cheating. These types of procedures should make it as easy as possible for students to choose to do the right thing and as difficult as possible for them to misbehave or make poor decisions. Monitoring classroom activities and providing feedback and reinforcement prevent discipline problems. Teachers observe and comment on student behavior, and they reinforce appropriate behavior through the provision of verbal, symbolic, and tangible rewards.

- **Teach your procedures well**. It's not enough to just think of good procedures; you have to teach them to your students. And teaching them requires 4 basic steps: clearly explain the procedure, practice it with them, correct any parts that were done incorrectly, and have them redo the procedure until they have it right. If you don't take time to properly teach your procedures, you'll end up being frustrated the whole year when students just don't seem to be following them.

- **Keep your students engaged**. The more engaged your students are in learning, the less they will cause problems. So, let your passion for teaching show and make your subject come alive. Also, remember that the one who is working is the one, who is learning, so don't just lecture all day. Get your students involved. Maintaining a brisk pace for instruction and making smooth transitions between activities keep things moving in their classrooms, which increases learning as well as reducing the likelihood of misbehavior.

- **Move around the classroom**. Don't be stuck at the front of the room. Feel free to walk around as you teach. Not only does this provide some variety, but it also helps you keep a better eye on what the students are doing.

- **Develop a rapport with your students**. If teachers want their students to follow them , they need to respect them and know that teachers care about them. So, invest in their lives. Be genuine and admit your mistakes. Be kind and approachable. Compliment them, write them kind notes, and attend their extracurricular events when possible. Give them the benefit of the doubt and show them that you love them. This regards also sharing with students the responsibility for classroom management. It is better to inculcate in students a sense of belonging and self-discipline, rather than viewing discipline as something imposed from the outside.

- **Be professional**. If your goal is for your students to like you, you're going to set yourself up for a host of problems. Instead of viewing yourself as your students' friend, you need to see yourself as their mentor. That means your interactions with them should be friendly but not familiar. Oh, and don't forget to consider your dress.

- **Require students to clear their desks**. Require students to only have out on their desks what they need for the current activity. Everything else must be put away or on the floor. When their desks are mostly clear, you can easily see exactly what they're doing, and it makes it much harder for them to be off-task.

- **Establish structure first**. I know you may have a whole list of exciting activities that you want to do with your students, but save the less structured activities until the students are used to your expectations and are doing well with a more structured environment. Then, once they understand structure, they and you should be able to enjoy a less structured activity while still maintaining control.

To prevent discipline problems, a teacher should be an effective manager and help learners to recall behavioral rules and classroom routines in much the same way as they teach instructional content, and they review these frequently at the beginning of the school year and periodically thereafter. Classroom rules are posted in elementary classrooms.

Classroom misbehavior is predictable and preventable. Providing effective instruction is likely the single best way to prevent classroom misbehavior, to increase students' on-task behavior, to enhance students' commitment and to assure students' collaboration with the teacher. There are many effective teaching methods that increase student commitment while avoiding indiscipline.

To provide effective instruction and to effectively address misbehavior whenever it occurs, teachers must accurately identify the cause(s) of classroom misbehavior, whether it is individual or collective. Teachers must also be aware that there are causes for students' misbehavior that are manageable by the teacher and that other causes are out of teachers' control. Only the former can be approached in the short term, that is, in the classroom; the latter must be approached elsewhere.

Application Activity 5.5

1) What will you do to prevent discipline problems during school practice?

2) You give your learners an assignment that is due the following week. You want them to complete it on their own to learn independent work skills. They must choose an historical event, learn as much as they can about it, and make a poster describing it. When the due date arrives, one of your learners has not made a poster. You are frustrated that he did not complete the assignment when he had so much time to do so.

For each case study, please consider:

- What could be the reasons for the child to behave in this way?

- How would you respond? Why would you respond this way?

- What steps or actions could you take to prevent the incident from happening again?

- Who would you involve?

End of unit Assessment

1) How does positive discipline lead to better schools?

2) Physical punishment is as bad as emotional punishment. Differentiate them with a clear example.

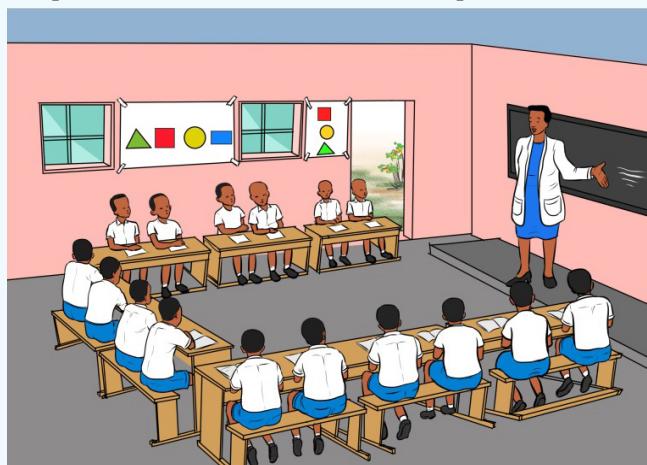3) What are the benefits of using positive discipline in classroom?

UNIT
6

SETTING UP THE CLASSROOM

Key unit competence: Make a plan for set up and management of the physical classroom environment to ensure it is conducive.

Introductory Activity

a. Visit one of your model schools to observe the classroom set up and after share with your colleagues what you have seen.

b. Look at the picture below and answer to questions

1. What are the classroom materials found on the picture?

2. Compare this photo showing classroom set up to the classroom of your visited model school and share findings.

3. Do you think it is important to plan for a classroom set up and manage physical classroom environment? Why?

6.1. Physical components of a quality classroom set up

Activity 6.1

Look at your classroom and brainstorm all items which are in the classroom.

The physical components of a quality classroom set up such as furniture, space, storage cupboard, talking walls, displayed materials, books; displayed student work, WASH materials and presentations in a classroom can significantly influence learning. A classroom that has a well-defined physical arrangement and appears organized will promote a positive learning environment (Kenyon, 2015).

A well-thought out physical arrangement is important for any type of special education setting for these reasons:

- Students learn to respect physical boundaries. There are boundaries between students' areas and teacher-only areas as well as boundaries between each of the student's individual work areas. This provides opportunities to teach students to respect other people's spaces and belongings—an important skill in all life settings.

- Students learn to anticipate the specific types of activities that will occur in specific areas of the classroom. This helps students participate more fully in the activity because they will enter the area with the mind-set that corresponds with the anticipated activity. Knowing which activity is next also can ward off misbehavior that often occurs when students are caught off guard or have inaccurate expectations regarding what is about to occur.

- Students will also learn which behaviors are acceptable and expected in each specific location of the classroom and which behaviors are not acceptable or expected in certain other classroom locations. This is a valuable life lesson that is important at home, in the community, and on the job site.

- Proper room arrangement provides predictability, which has a calming effect on many students. When students are better able to understand their environment and anticipate what is coming next, they tend to be less apprehensive. Their mental states are more conducive to learning new material. A decrease in anxiety typically translates into a decrease in misbehavior as well. Your classroom materials are readily accessible. When specific activities happen in specific areas of the classroom, the

materials needed for those activities can be located in the area where they will be used, allowing them to be retrieved quickly and easily. This decreases down time and misbehavior and increases productivity.

Other important environmental features include **temperature, lighting, and noise level**. These factors affect students in different ways and are directly related to individual learning styles. When teachers adjust the physical component of a quality classroom setup to students' preferences, the students perform better academically and are better behaved.

In reality, however, many classrooms at nursery, primary, secondary and college schools have been built using more conventional models for lecture and seminar-type courses. A teacher can consider ways to modify seating arrangements and match arrangements with the demands of classroom activities in order to help maximize student learning.
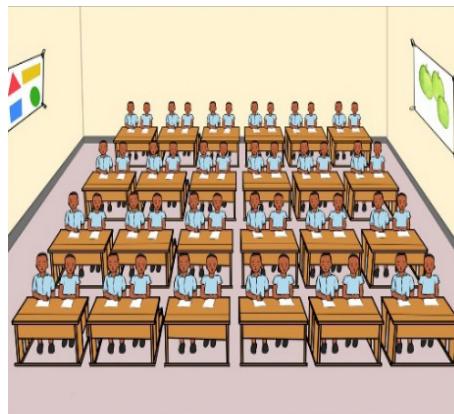
Seating arrangement

It involves arrangement of learners, desks and chairs. This determines classroom communication, interpersonal relationships and variety of daily decisions teachers must make concerning the management and use of available teaching-learning resources. (Shalaway, 2005)

It is dependent upon the teaching methods, class activities, size and shape of the classroom age and needs of learners and subject being taught.

In cooperative learning learners require moving desks to be allowed to talk to one another, this helps them to improve relationships in the class. Teachers should ensure that learners are mixed with regard to their abilities. This helps the learners with lower performance to work together with the brighter learners (Kenyon, 2015).
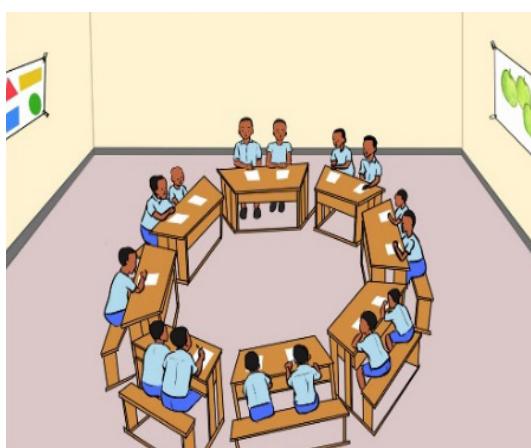
Various ways of organizing seating arrangements in classroom. (Harvey, 2013)
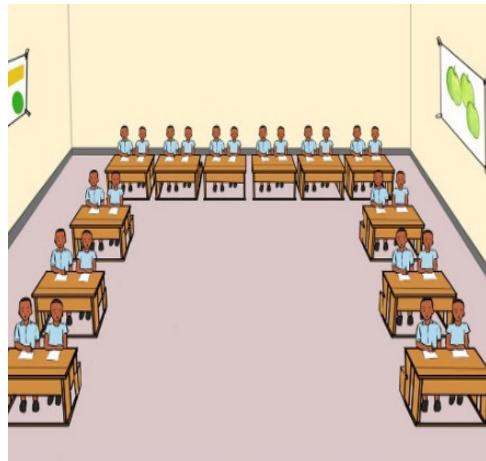
1. **Traditional classroom set up**

The traditional classroom setup typically consists of rows of fixed seating. Students face teachers with their backs to one another. This classroom seating arrangement is historically common in traditional African schools, minimizing student-student communication and largely supporting a "sage on the stage" learning environment. The highest communication interaction between teachers and students typically occurs with students in the first row or along the middle of the classroom. Students in back rows are more likely to be less engaged.
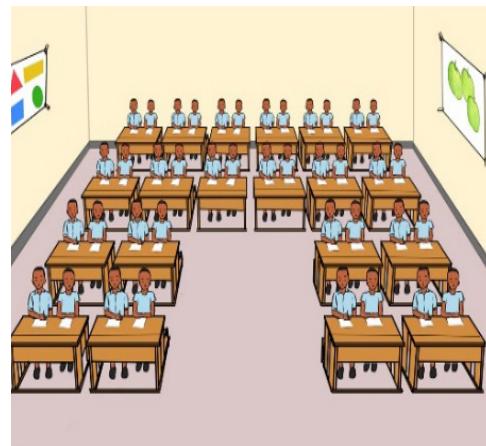
2. **Roundtable**

Many seminar-course room arrangements may consist of teacher and students sitting around a single large table. This seating arrangement can also be formed using individual desks. Students and teachers all face one another in this setup, which can support whole-class as well as pair-wise dialogue.
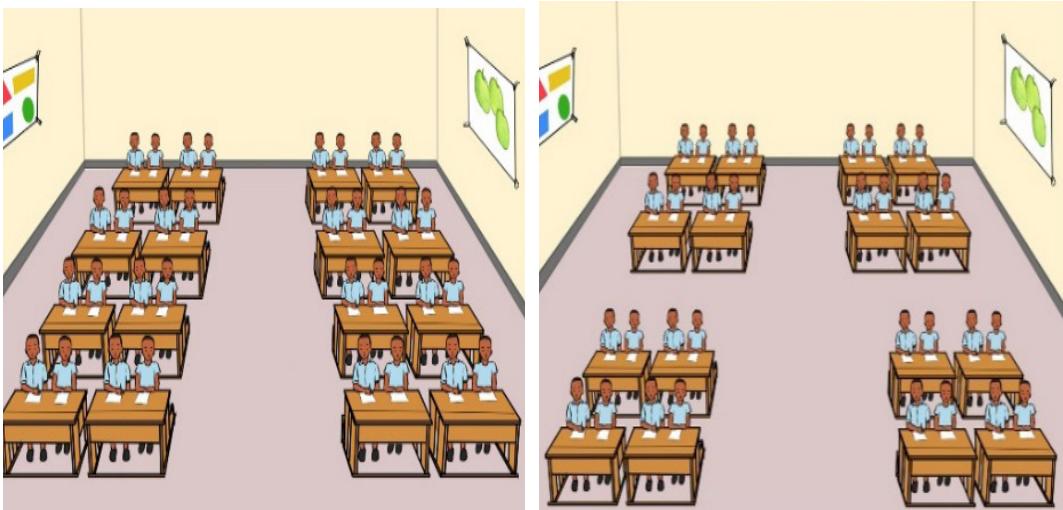
3. Horseshoe or Semi-circle

The horseshoe or semi-circle offers a modified roundtable setup, where all participants face each other while the teacher can move about the room. The horseshoe encourages discussion between students and with the teacher, although this setup tends to encourage more engagement between the teacher and students directly opposite, with slightly lesser amounts for students immediately adjacent to the teacher. A horseshoe setup can be particularly effective when the teacher wishes to project and discuss course-related material in the front of the class.

4. Double Horseshoe

This seating arrangement involves an inner and outer horseshoe, and similar to the conventional horseshoe, invites greater discussion than the traditional format. It is more limited by the backs of students within the inner circle facing students in the outer circle. However, students may also more easily interact with those nearest to them or turn around and face students behind them for group work.

5.   Pods (Groups, Pairs)

The pod or pair arrangement can be designed with rectangular, circular or trapezoidal tables, or individual desks. With regards to stations, teachers can place several tables together to form student groups (e.g. 3 - 4 students), or pairs. This arrangement can be especially advantageous when students will work in groups or pairs with their classmates for a large portion of class time. More generally, this arrangement communicates a learning community where students are expected to work with one another.

Arranging the whole- group area
- Make sure that all students will have an unrestricted view of the chalkboard.
- Consider what whole group activities will take place to determine how to arrange students' desks. Keep in mind that arranging desks in a circle promotes discussions and small clusters of desks can double as small-group meeting areas.
- Your desk should be out of the way, but in an area where you can view the entire classroom. Set aside an off-limits zone for your records and supplies.
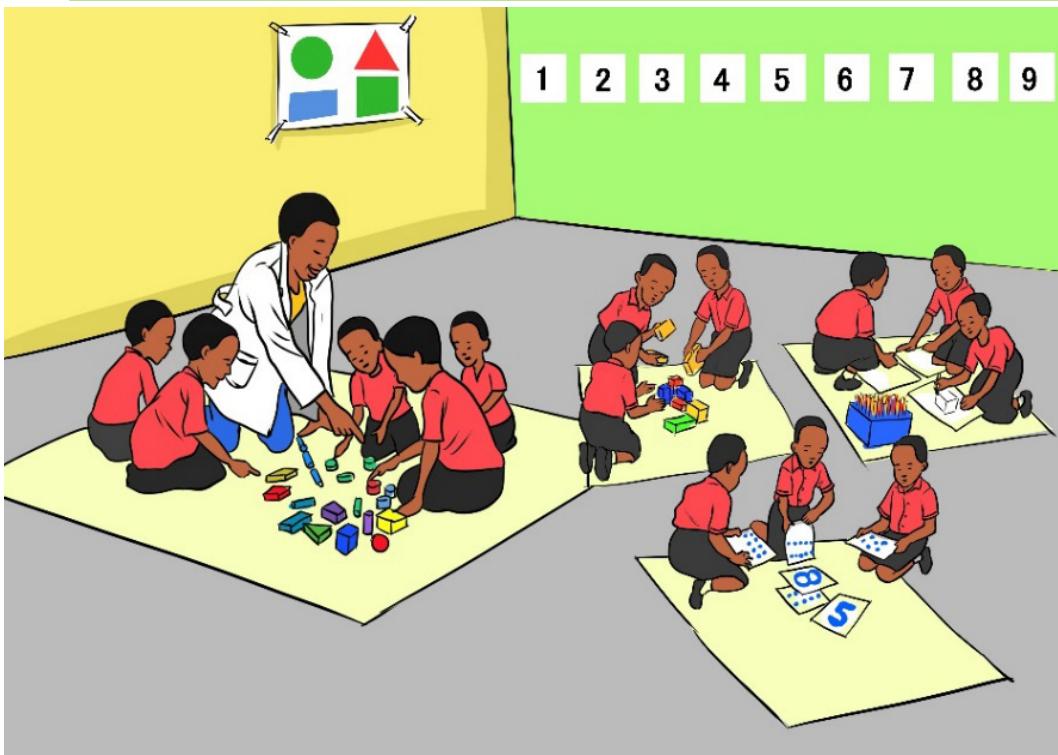
6.2. Special considerations for classroom set up in pre-primary (ECLPE)

Good classroom arrangement inspires and encourages young children to easily interact with each other and develop various skills including language, and social behavior. Poor classroom physical arrangement may affect young

children's free movement and can result into social behavior problems. Social behavior problems erupt in places that are not well managed, have no guiding rules, and have mixed objectives to achieve. Effective teachers set up their classrooms physical environment so that children can spend some of their learning time in the learning areas that interest them.

Materials that are placed in learning centers that engage children in various activities and learning should be attractive and on the age level of the young children. If the materials located in learning areas are beyond the age level of the young children, they may be hard for them to comprehend and formulate new knowledge but instead, they will cause discomfort and sometimes aggression which may cause pushing and at times fighting.

Isbell (2007) explained that "the materials placed in every learning area should match the age, development level, and the interest of those young children for which they are intended". If inappropriate materials are placed in any given learning area, children may ignore or they may not use them to explore new ideas.

The materials that are more advanced compared to the age of the children may cause some behavior problems and they may be torn or mishandled thus making some children be categorized as disruptive and yet the misbehaviour originates from the teacher. (Obaki, 2017)

How children interact with the environment and each other will influence room arrangement, available materials and what happens within the space. Room arrangements need to be well planned, organized, and be developmentally appropriate to meet all children's needs. The physical arrangement of the room needs to create a child friendly flow with clear traffic patterns that neither interfere with children's play nor promote any type of running or dangerous behaviors in the room.

A preschool classroom should be clean and free of clutter. Materials are of student interest, age appropriate and ready for hands-on learning. Materials and consumables in the room are for the children and should be stored in labelled child friendly containers or shelves (in individual children's home language). Materials and consumables need to be accessible and available for children to use freely and independently.

Little (2016) supports the use of open-ended materials and loose parts as they "allow children to be creators rather than consumers of their learning." The furniture should be child-sized which will help the children feel more comfortable as they sit in chairs that allow their feet to touch the floor with

tables lowered to about elbow height with their knees able to fit comfortably under the table. Classroom furniture should be clean with no sharp edges. All furniture in the classroom should be convenient for easy care and easy accessibility. The classroom should be furnished with both hard and soft furnishings. Young children need soft comfortable spaces to escape the hardness of typical classrooms.

Rooms should be ample enough in space to permit children and staff to move freely with enough space for mealtimes, group times, and space for interest centres and play areas. When placing furniture in the classroom, teachers should also keep in mind where electric outlets (covered with a child safety plug) and computers cables are located.

In setting up the preschool classroom, learning centers/corners are designated for specific types of exploration and activities. Organization is key in order for a child to explore what is available and where things are located for easy access and clean-up. The environment sets the stage for the learning opportunities that can occur. The importance of high-quality home and childcare settings for early childhood is indisputable. These settings exert a powerful influence on young children's development. Safety, hygiene, ventilation, light, cleanliness, design and location define quality, allowing children the opportunity to ignite their natural curiosity and wonderment through exploration of the physical landscape. This meaningful engagement with the environment is a critical foundation for development and a particularly important dimension of quality (Berlin, Rebecca, & Kenneth, 2011).

Arranging the learning corners

When planning take into account the physical features of your classroom. Keep the following things in mind:

- Use bookshelves to keep all the teaching and learning materials (books, play materials, etc.)
- Save space by using walls for posters,
- Provide comfortable seating.
- Separate learning corners of high activity from corners like the Reading/ Literacy, Arts corners, where children need silence or concentration.
- Some Art activities are potentially "messy" and are best set up on flooring rather than on a mat or carpeted area.
- The literacy, book, numeracy and construction corners are best set up on a mat or carpeted area for comfort and free manipulations.

- The dramatic play corner can be anywhere in your classroom

6.3. Adapting the classroom to the theme (ECLPE)

Activity 6.3

Observe the picture below and answer the questions.

a. Describe the classroom environment observed on the picture above?
b. Share ideas on how different classrooms are adapted to themes.

The pre-primary classroom should be set up with the goal of letting children know where materials go; however, the set up should not limit what can be done in each area. During setting up a classroom, the teacher will also need to consider health and safety. When determining a classroom design, think about how each interest center is used and, therefore, the activity level that may occur in each center.

Depending on the themes that are taught, corners can be adjusted and supplied with materials belonging to the specific themes. **Example;** During the theme: 'My home', the role-play corner can be organised as a home with cups, plates, cutlery, flask, jerry can, basins and clothes to imitate washing, pans to play

cooking etc. If the theme is: 'Institutions and occupations in my community' the role-play corner can be a shop with money (bottle tops and papers with numbers written on them) and products (food wrappers, empty blue band boxes, etc) with prices written on them.

Application Activity 6.3

After learning how you can adapt pre-primary classroom set up to the theme; create a plan with some materials for a model nursery learning environment based on a theme.

6.4. Strategies for managing classroom resources

Activity 6.4

Individually, sort these statements about the learning environment into **true** or **false** and share them with your colleagues.

a. Materials should be locked away in a storage cupboard except when the teacher is using them so that they won't get damaged by the children.

b. Young children should take responsibility for organizing materials and be able to tidy up the classroom.

c. Material should be used only by the teacher even during learning corner and there is no need to let learners know how to store them.

Strategies for managing classroom resources mean looking after classroom resources properly. Looking after resources could include the following:

- Covering of books

- Use of cupboards

- Washing of hands before handling books

- Avoiding putting inks in books

- Avoiding use of books near or while handling food

- Putting resources in appropriate place after use

- Correct storage of resources, e.g. upright or rolled up.

- Keeping resources away from sources of water, e.g. leaking roofs.

- Creating space for resources considering topics, lessons and/or options

Classroom resources make lessons lively and interesting; therefore, this asset must not be impaired by damage. Classroom resources ensure understanding of lessons. Facilitators and learners should always ensure that classroom resources are mended or repaired when they are slightly torn or damaged. Learners should always handle classroom resources delicately (Antofina, 2016).

Application Activity 6.4

After visiting a Teachers Resource Center (TRC) at your College and observing how resources are managed, share findings with your colleagues about:

    a. Strategies for managing classroom resources

    b. Roles of the teacher and learners in managing classroom resources.

6.5. Types of routines and procedures to establish

Activity 6.5

Read this scenario and answer related questions

Claude, a 4-year-old, is a new preschool child. He and the other pre-schoolers in his classroom are playing on the playground. When the teacher calls them to go inside, they all gather next to the entrance door. Claude stays in the sandbox. When the teacher approaches him and asks him to come with her, he starts crying and screaming, then drops to the ground.

Questions:

    a. According to you, what was the cause pushing Claude to stay in the sandbox?

    b. As prosperous teacher; how can you handle this situation?

Routines refer to specific behaviours and activities that are taught in order to provide smooth, uninterrupted class operation. Routines, carefully taught, can save large amounts of time during the year. When students know exactly what is expected of them in a variety of situations, the time saved can be spent teaching rather than organizing or disciplining. (Association, 1999)

Develop, teach, and enforce a specific routine for these basic situations:

- Starting up and ending the lesson
- Leaving to go to the break time/restroom
- Sharpening pencils
- Getting supplies and books
- Working in small groups
- Dismissing the class
- When assignments are complete
- Putting away materials
- Taking attendance

When routines and procedures are carefully taught, modelled, and established in the classroom, children know what's expected of them and how to do certain things on their own. Having these predictable patterns in place allows teachers to spend more time in meaningful teaching. Establishing effective classroom routines early in the school year helps keep your classroom running smoothly and ensures that no time is wasted while students wonder what they should be doing during times of transition. Classroom routines can be established for many activities, including entering the classroom in the morning, transitioning between activities and preparing to leave the classroom. The basic procedures for establishing solid routines remain the same regardless of the routine procedure that you are teaching your students.

Some tips for classroom procedures

Every teacher must develop classroom procedures in order to make their teaching easier and create a more effective learning environment for students. Teachers who have not created and reinforced procedures for each of the following situations will cause themselves undue stress while robbing their students of important classroom time (Kelly, 2019).

1. **Begin class on time:** Class begins even before the bell rings. Research shows that when teachers greet students at the door, the class period gets off to a good start. Greeting students at the door with positive verbal or non-verbal interactions can improve student engagement and motivation. A teacher who greets students at the door can remind them of the time when learning will begin. Starting class late means a loss of instructional time. For example, a loss of five minutes at the beginning of each period is a loss of 250 minutes, or five class periods, every 50 days.

While those five minutes do not seem to matter that much on a given day, when they are added up they account for a lot of lost learning time. Teachers should begin with a task that students can do independently as part of a daily routine. A journal prompt, a problem to solve, a location to identify, an independent book to read, or a graphic to analyze are all examples of independent tasks students can do.

These routines are important for classroom management at the start of class because of the number of teacher responsibilities (attendance, homework collection, announcements) that are not directly tied to instruction. When students are engaged in a task, they are less likely to misbehave. "Teaching and learning time is maximized due to efficient and seamless classroom routines and procedures. Students take initiative in the management of instructional groups and transitions, and/or the handling of materials and supplies. Routines are well understood and may be initiated by students." Beginning class on time is a learned behaviour for both teachers and students. Students change based on the expectations of their teachers. Starting class on time with a task every day can maximize the use of available teaching and learning time.

2. **Create a system for restroom use:** Students, especially young children, will need to use the restroom during class, so the teacher needs to set in place a system that is the least disruptive possible while ensuring that it is not easily abused. Specific strategies or rules that can be implemented include:

- Set a rule that restroom use is not allowed 10 minutes before or after a bell (beginning or end of class).

- Use a small chalkboard (in the corner). When a student needs to use the restroom he/she must write his/her name on the whiteboard before leaving the classroom and erase his/her name when returning to class.

Teachers can also enforce a time limit if they feel students are abusing the restroom policy.

3. **Procedures for questions:** Students should feel that they have the ability to ask for help during class. It would be a bad math teacher, **for example**, who did not help students struggling with multiplying fractions. However, a clear system needs to be set up at the beginning of the year of how students should ask for help. Teachers will want to avoid having students call out unrelated questions during a lesson or task or when they are helping other students.

Some policies teachers might want to consider:

- Require students to raise their hands,
- Ask students to short questions as during the lesson;
- Provide them designated time to ask questions during class,
- Create a "parking lot" or area where students can post questions;
- Have office hours before and/or after school when students know that they can come for help.

Some teachers have also used social media or a classroom website as a forum for students to ask questions. These platforms can help students share information as well (where it is applicable).

4. **Collecting work:** Collecting student work should be a streamlined process. However, if teachers do not have a practical plan on how they want students to turn in work, the process can quickly become an inefficient mess with papers handed in at odd times. This can lead to classroom disruptions or grading issues. If students have paper copies, there is the possibility of lost papers. Therefore, a teacher needs to decide when and how students will turn in their work. Ideas that teachers might want to consider include:

- Collecting work, particularly homework, at the door as students enter the class
- Having a specific colored folder in a designated location where students are responsible for turning in their homework before class begins.

In the digital classroom, students should know where to post work. Educational software platforms can include Google Classroom, Schoology, Edmodo, or Blackboard. Student work is time stamped when it is submitted. No matter what system is chosen, a teacher must consistently enforce that system to get the greatest benefit.

5. **Ending the class efficiently:** The same attention given to the way a teacher starts a class should be given to how a teacher ends a class. The lesson should maximize the use of teaching and learning time. "The sequence of learning activities follows a coherent sequence, is aligned to instructional objectives, and is designed to engage students in high-level cognitive activity."

The concluding activity or routine is all important for classroom management at the end of a class.

All lessons should provide time for students to prepare for a future lesson or to distribute materials. Teachers may use different strategies to assess what students learned during class such as:

- A 3-2-1 form on which students write or talk about three things they learned, two things they still want to learn, and one question they still have;

- A reflection card on which students reflect on the lesson and write down what they have learned or how this lesson can connect to real life;

- A short comprehension quiz at the end of class.

At the end of each lesson, the room should also be reset to its original formation, especially if the classroom is shared with another teacher. **For example**, if the lesson required students to move around and desks rearranged for group work, the room should be set up for the next period. Materials used in the lesson need to be returned for future use. Books should be returned to a specific location to ensure that they accounted for future use (Kelly, 2019).

Application Activity 6.5

After learning about routines and procedures to establish: Discuss how routines and predictability are important to help children feel safe and perform better.

End Unit Assessment

- Propose key considerations in order to make the plan for a conducive classroom set up and management.

- Draw a classroom set up and include all materials required for a conducive classroom environment.

UNIT 7

Key unit competence: Create a conducive environment for smooth transitions.

Introductory Activity

Read this Scenario and answer to questions related to it:

It is a busy morning in Kamanzi's family. From this situation, sixteen-month-old Gatete watches his three-year-old twin brothers, Gisubizo and Kiza, get dressed. They were just enrolled in Ruriba pre-primary school two weeks ago. Gatete is enrolled in the Amizero crèche.

"Hurry, hurry! You're going to be late for school," exclaims Monica, their mother. Kiza stomps and shouts, "I can't find my shoes!"

Monica puts Gatete on a carpet in the living room with some board books and says, "You can look at your books while I help Kiza find his shoes." Gatete pushes the books off the carpet and walks after his mother, crying. When Monica doesn't respond, he falls down and begins kicking and crying louder. Monica assures him, "I'll be right there, Gatete."

As Monica looks for the shoes in the bedroom, she calls out to Kiza, "Look under the sofa." Kiza finds them and shouts happily, "My shoes!" Monica ties the twins' shoes at the door and gives them both a kiss goodbye.

Gisubizo clings to her legs and cries, "No . . . Don't want to go." Monica gives him a big hug and tells him, "Maria is going to accompany you to school with her children today. I'll pick you up after lunch." Gisubizo lets go of his mother, "Okay . . . after lunch." Kiza pulls on Gisubizo's arm, "Let's go. I want to play with the cars." Kiza reluctantly walks away, looking back over his shoulder several times as he walks down the front steps.

Monica picks up Gatete, dries his tears, and says, "You had to wait a long time! I'm here now."

Gatete sniffs, points to the fruit bowl, and says, "Nana." Monica replies, "Would you like a banana for breakfast? That would be yummy. Would you like it on some toast with peanut butter?" Gatete nods his head and says, "Toast."

"Okay," Monica replies. "But first we need to change you out of your wet diaper and then you can eat. And, guess what? Lydia, your home visitor, will be here after breakfast. Won't that be fun?"

Questions:

   a. After reading this scenario, make a comment on it.
   b. Think about your first day early morning; preparing yourself going to school and share your experience with your colleagues. (Was it stressful? Who helped you and in which ways?)

7.1. Emotions of transitions

Activity 7.1

Think about the first day of pre-primary and primary learners at school. Describe this day and share their feelings with the whole class.

Transitions are changes that take place in our life, changes which can occur over a short or long period of time, can be physical, emotional, personal or psychological, and can be predictable or unpredictable. Life is full of changes and every child and young person will go through many transitions. Some of them may have a positive effect (such as an increased level of motivation or improved self–esteem); others may have the opposite effect. Children manage transition best when adults:

- Respond predictably and consistently to children's needs in order to develop a trusting relationship.

- Engage children in warm, supportive interactions.

- Model positive social behaviour.

The teacher must learn to recognize signs of transition anxiety, including body language, changes of behavior, or changes in their work. Sometimes a child or young person may find it easier to express his/her feelings and thoughts through art work, stories or poems, than to articulate such complex emotions verbally.

Expressing and managing emotions

Adjusting to a new environment can be stressful for children. It may involve strong feelings and emotions, such as sadness, fear, or excitement. Some children may express their emotions by withdrawing, crying, kicking, or rolling around on the floor.

Children's reactions to transition and the strategies they use to cope are often related to their developmental stage. An infant may experience separation anxiety and cry uncontrollably when a familiar caregiver is absent. Infants may self-pacify by sucking their thumb or calm themselves in response to singing or humming. Toddlers may seek adult support and comfort themselves in different ways. **For example**, they may use a familiar toy from home (a transitional object) to help them with the home-to-school transition. Preschoolers may manage emotions more independently, using a range of ways to handle strong feelings. **For example**, they may ask questions or take deep breaths to calm down. Children of all ages may display regressive behaviors for a few days or weeks during or after transition. They may show behavior they have already grown out of, such as temper tantrums, thumb sucking, or bedwetting.

Starting primary school is a predictable, intellectual transition, which can be emotionally upsetting for some children. They may experience anxiety and stress when they first attend the new setting or meet a new teacher. The ability

to build close relationships with adults (Caregivers, parents and teachers) and other children is critical for children's healthy adjustment during transition. Developmental research indicates that from infancy, children develop emotional connections and attachments to familiar adults. Trusting relationships with familiar adults provide children with security, comfort, and a strong base from which to explore new environments and learn. This is especially true in new or difficult situations when children need the reassurance and comfort of adults.

Application Activity 7.1

Prepare a role-play behaving as young children who are going to spend their first day at school, other promote in their next class, others shift from a system to another (Kinyarwanda to English transition).

Perform in front of your colleagues.

7.2. Types of transitions

Activity 7.2

Share your perception with your colleague about how children move from home to school, pre-primary to primary, lower primary to upper primary, lesson to lesson, break to lesson and move to new school. Do you find any similarities or differences in that transition?

7.2.1. Home to school transition

The home to school transition is the move young children make from home or nursery to primary school normally around age 3. During transitions from home to school or from one early education setting to another, children separate from their families or familiar caregivers and need to develop secure relationships with new, unfamiliar adults. They also develop relationships with other children in the new environment. Children with poor socio-emotional skills, low self-esteem or low self-confidence may be particularly vulnerable during the home to school transition because they lack the skills that would provide them with stronger emotional resilience to cope with new expectations and new social relationships.

Children who have had limited opportunities to socialise and manage their emotions may not have the competencies needed for a successful start at pre-primary and primary school such as turn taking and the ability to respond appropriately to different situations (Hirst, 2011).

7.2.2. Pre-primary to primary transition

Children often experience sharp differences when they transition from preschool to primary school, especially in relation to the structure of the setting and curriculum. In early learning programmes, for example, children have the space to play; in primary school they may sit in rows and behind desks.

When preschool and primary school classrooms differ dramatically, children may find it overwhelming to make the transition. Classrooms in preschool, for instance, are often arranged in groups or learning areas/corners with a schedule that balances free play, group time and one-on-one instruction. When young children move to primary school, they may find it difficult to adjust to a change in rules, routines, atmosphere, and teachers' expectations and styles of interacting. Ways of teaching and learning in primary school often tends to be more structured; children are expected to sit in rows and listen to didactic group teaching.

Another significant difference lies in how preschools and primary schools organize curricula. Whereas early childhood curricula tend to address domains of learning (cognitive, physical, social, etc.), primary schools often focus on subjects (reading, mathematics, science, etc.). Again, this switch means children must adjust.

When children move from pre-school to primary school they also experience a change of identity from being a child in pre-school to a learner in school, which means they are expected to behave in a certain way and understand the classroom rules, to learn the language of the classroom and to "read" the teacher (Dockett & Perry, 2007; Fabian, 2007; Merry, 2007).

When children enter school, they often meet a larger physical environment—and it can be difficult to find their way. In pre-school the child belongs to the eldest group of children, and suddenly he is the youngest and is forced to relate to older children. In primary school the social environment is much more complex; there is a greater number of children compared with the number of children in pre-school, and with that there will be much more competition. In primary school there are fewer adults, which mean less individual attention and interaction with adults than previously. In primary school children have less autonomy and they are often forced to discipline their own body movement.

7.2.3. Shifting from lower primary to upper primary transition

Learners' performance in learning must be maintained as they make transition from lower primary to upper primary level. In Rwanda, a learner's transition from lower to upper level can be complicated by instructional language, shifting from Kinyarwanda as medium of instruction to which is the child's mother tongue to English as a medium of instruction from upper primary to further learning. These changes can negatively impact on their learning. Teachers that understand how these changes impact on their learners are better placed to help learners make positive adjustments in order to cope with upper primary level. For instance; in the first term of primary four, it will be fruitful if teachers should explain a little bit some concepts in their mother tongue and slowly a child will get adjusted to the teaching learning process.

7.2.4. New school

Children often adapt easily to situations but moving to a new school and making new friends can be very difficult for children of all ages. There are however some steps that parents and care givers can take to make transition to a new school easier and less stressful for children. The first thing they should do is arrange a visit to the new school so that both parents and their child can become familiar with their new environment. When helping children make the transition to a new school environment, it is important to take their personalities into account.

Some children will adapt to change better than others and won't necessarily need a bunch of extra preparation. On the other hand, children that have shown difficulty in adapting to new environments may need a bit more help with the transition.

Practicing the transition to a new school is one of the best things a parent can do to help prepare the child. Parents can take children with them and practice the route to school, and even visit the school itself before the first day. Parents should also help children socialize with some of the adults that work at the school. Try to seek out staff that they know to be friendly and outgoing and introduce the child so there will be some familiar faces (Stacho, 2013).

7.2.5. Lesson to lesson transition

Transitions are times when children move from one activity to another. For instance, move from one lesson to another lesson. These changes can be difficult. Waiting even for a few minutes is a long time to children. The result is that children wander, run around, or do inappropriate things. Dealing with those behaviours further delays the next activity. Short, smooth transitions mean that more time will be spent in meaningful activities. Good lesson to lesson transitions should:

- Be varied to keep children's attention and interest.
- Help children develop self-control.
- Meet the interests and developmental (social, emotional, physical, language, cognitive) needs of children.
- Be simple, enjoyable and relevant to the children. There should not be times of stress or teacher demands.
- Prepare children for what follows by introducing objects needed for the next activity or discussing what they are to do next.
- Give children warning of an upcoming transition: "We will be cleaning up in a few minutes", ring a bell, etc.

7.2.6. Break to lesson

Teachers should remember that children are naturally energetic, and that it requires great discipline for them to sit still and pay attention after coming from break in order to follow the next lesson in a conducive classroom. It is also important that teachers prepare activities that will be carried on after break. When a teacher, could not prepare class routine, Children can become exhausted and stressed out, and may start to perform poorly in school.

Maintaining an open relationship with children's teachers is an important caregiver responsibility. Teachers can provide parents with direct feedback on many different aspects of children's growth and development, including academic, social, and emotional growth and maturity. Teachers are also great sources of ideas for how caregivers can support children's learning at home. For children who are experiencing difficulties in break to lesson transition, teachers are a vital part of planning in advance what will be done during next lesson after break. This is particularly the case when children show evidence of learning disorders or other mental health issues that negatively impact their school performance. The earlier such issues can be identified and corrected for, the less damage they will cause after break.

Application Activity 7.2

a. Explain briefly, different types of transitions.
b. Discuss the impact of different types of transitions in learning process.

7.3. Stakeholders involved in transitions

Activity 7.3

Observe this picture and provide your comments about it.

A child's adjustment to school depends on a combination of personal or background factors and environmental factors and is a process that occurs – and a function of the ecological, dynamic relationships between children, family, teachers and the community in the prior-to-school and formal school settings – rather than an event that just happens to a child.

7.3.1. How schools can help children in adjusting to the new school setting

Many schools schedule transition activities to welcome new students and their families to the school community to help ease the transition. In particular, Schools have an opportunity to:

- Implement transition practices that bridge the potential gap between prior-to-school and formal school settings,

- Enhance the mental health and wellbeing of children and support parenting.

- Foster a school-based transition program, that will increase the ease with which children adjusts to school and the likelihood that makes childhood milestone to be less stressful.

- take into consideration the complexity and diversity of the transition process by reflecting the voices of parents and carers, preschool and school staff, and children; gradually preparing and familiarising children, parents and carers with the changes associated with the transition to formal schooling; and

- use strategies that allow for continuity in terms of peers, programming for children's learning as well as ongoing communication and expectations between home, preschool, childcare and school settings.

- Introduce parents and children to teaching staff and school protocols relating to uniforms, school starting and finishing times and so on.

- Familiarise children with their new school setting and addressing children's concerns about the practicalities of starting school, i.e., 'knowing the rules', children's social and emotional skills are considered by educators, and parents and carers alike, to be important in supporting children's adjustment to the new school setting

7.3.2. How parents and carers can help their children adjust to the new school setting

Parents and carers are an important resource during transition. Children too deserve a voice which gives recognition to their important contribution to the development of school transition programs (Margetts, 2008). Listening to children and spending time conversing with them about what is happening, what will happen and why, to help orient children to the school environment, relationships and interactions they may encounter, will support their adjustment to the school setting. There is evidence indicating that parents and carers may benefit from specific information and support around how to:

- Help their child get ready for school; **for example**: providing all necessary materials for school

- Deal with the common reactions to starting school; in terms of emotions.

- Increase their child's skills to become more independent at school; **for example**: toilet training

- Manage their child's fears and separation anxiety;

- Adjust to new family routines; and Assist their child with various school homework tasks such as reading

7.3.3. How early childhood service can help children in adjusting to the new school setting

The child's prior-to-school or early childhood service is another key stakeholder in the transition process. These are members from different communities such as religious or cultural communities; they can provide essential links between schools and culturally and linguistically diverse families.

In order to promote successful transitions, early childhood services should:

- Establish and maintain a healthy ecology of flexible social connections and social support for children.

- Make provisions to ensure that transition practices are tailored to fit local conditions by involving the wider community, **for example**, schools should often have close connections with different communities – such as religious or cultural communities.

To conclude; when these stakeholders are characterized by reciprocal communication, inclusivity, trust and respect among participants, and which are flexible and responsive to individual school communities, families and children, it helps to ensure more successful transitions.

Application Activity 7.3

After learning about different actors who can support transitions, explain how these actors support young children for smooth transition.

7.4. Strategies for smooth transitions

Activity 7.4

Read the following scenario and answer to questions.

Akariza is a 3-year-old girl. She enjoys playing in the playground and interacting with friends. When the nursery teacher announces that it is time to be back in the classroom and sit on the carpet for group time, Akariza gets very upset. She throws toys and pushes other children. When the teacher comes near her, Akariza starts screaming and saying that she has not finished playing.

a. What are possible reasons for Akariza's behavior in that situation?

b. Suppose that you are her teacher, how do you think you can handle that behaviour for smooth transition?

There are a range of strategies that parents and carers can use in the context of a caring and nurturing adult–child relationship to foster their child's skill development in areas relating to growing independence, self-care, making friends, separating from the parent or carer and readiness to learn. There are positive strategies that parents and carers can use to support their children's cognitive, social and emotional development, mental health and wellbeing in preparation for the transition to school and adaption to the new environment (Stacho, 2013). These may include:

- Setting up visits to the school grounds on weekends to introduce children to the idea of starting school and to familiarise themselves with the physical surroundings of the school thereby making them more comfortable with the new environment (Dockett, Perry, & Tracey, 1997).

- Engaging in active listening techniques that allow children to express their thoughts, feelings and concerns about starting school.

- Ensuring that, from the first day of school, children arrive at school on time and have all the necessary equipment.

- Supporting children's social emotional development; for example, by assisting children to learn self-awareness, social awareness, self-management, decision-making and relationship skills.

- Setting up opportunities for children to get to know some of their peers who will be in the same class as links have been found between having a familiar playmate in the same class and increased academic competence, improved social skills and a reduction in behavioural and adjustment difficulties in children in the first year of school.

- Providing a variety of play experiences and activities such as those also provided in early childhood services, for example, art, dramatic play, science, maths, music and movement, and play with blocks, sand and water.

- Supporting the development of children's social and behavioural skills by encouraging them to take turns, to learn to listen to and follow instructions, to ask for help during school if they do not understand what the teacher is asking them to do and so forth.

Parents and carers can also be supported with high-quality information and strategies that aim to assist children's social and emotional learning.

Strategies for improving classroom transitions
- Communicate clearly when activities will begin and when they will end.

- Maintain a visual schedule that is reviewed and referred to frequently. When changes are to occur in the schedule, point them out in advance.

- Give specific instructions about how students are to switch from one activity to the next.

- Clearly teach, model, and have students practice and rehearse all procedures thatwill occur during changes of activities. This includes such things as the students' quick and quiet movement from their desks to the carpet area, putting away/taking out materials, and so forth.

- Use **signals** for transitions (e.g. playing a recording of a specific song or part of a song, flashing lights, a clapping pattern, and prompts such as "1, 2, and 3…eyes on me").

- A signal indicates that an activity is coming to an end and children need to finish whatever they are doing.

- Some teachers signal and tell students they will have a brief amount of time (3-5 minutes) to finish what they are working on before the next activity, or to clean up. They then set a timer for that amount of time.

- Primary school teachers typically use songs or chants for transitions (e.g., for cleaning up, moving to the rug).

- Provide direct teacher guidance and prompting to those students who need it during transitions.

- Acknowledge/Reward smooth transitions. Many teachers use individual points or table points to reward students or rows/table clusters of students who are ready for the next activity. The reward is typically something simple like being the first row or table to line up for recess.

- Be organized in advance with prepared materials for the next activity.

- Establish predictable routines and set clear expectations.

- Help children learn how to manage and express their emotions.

- Have realistic expectations of children based on their development and temperament

- Encourage and reinforce children's effective coping strategies.

- Teach children strategies to handle stress and manage their actions and behaviour.

Application Activity 7.4

What are strategies for supporting learners to transition smoothly?

7.5. School-readiness

Activity 7.5

Observe the picture below and answer the following questions

a. Comment on the images that are seen on the picture.
b. What do you appreciate on the picture and why?

School readiness is currently defined by three interlinked dimensions: **ready children**; **ready schools**; and **ready families**. Children, schools and families are considered ready when they have gained the competencies and skills required to interface with the other dimensions and support smooth transitions. For example, the child transitions to school, the school transitions to accepting new children into primary or nursery 1, and the families' transition to sending their children to school on time and interacting with the school (Britto, 2012).

a) **The 'ready children' dimension** focuses on children's learning and development. It refers to what children should know and be able to do in order to enter school ready and eager to learn, thereby enabling a successful transition to a pre-primary or primary school learning environment.

Success in school is determined by a range of behaviors and abilities, such as literacy, numeracy, ability to follow directions, working well with other children and engaging in learning activities. These behaviors and abilities are interrelated across broad domains of development and learning, including physical well-being and motor development; social and emotional development; approaches to learning; language development; cognition and general knowledge; spiritual and moral development; appreciation for diversity and national pride.

Children's readiness for school addresses all children, especially the economically disadvantaged and the vulnerable, including girls, children with disabilities, ethnic minorities and children living in rural areas (Britto, 2012).

b) **The 'ready schools' dimension** focuses on the school environment. It includes practices that; foster and support a smooth transition for children to primary school and beyond; and promote learning for all children.

Ready schools characteristically create continuity and maintain learning expectations for children between early learning and primary school environments. Other important quality characteristics include the practices schools use to bridge the cultural divide between home and school. The divide is greatest for children whose first language is not the same as the language of school instruction. Schools can bridge this gap by working with parents and incorporating culturally responsive practices that include the use of the child's first language. This practice promotes equity by including traditionally disadvantaged ethnic minorities. With respect to children with disabilities, ready schools adopt inclusive approaches in lieu of exclusionary educational practices and discriminatory attitudes.
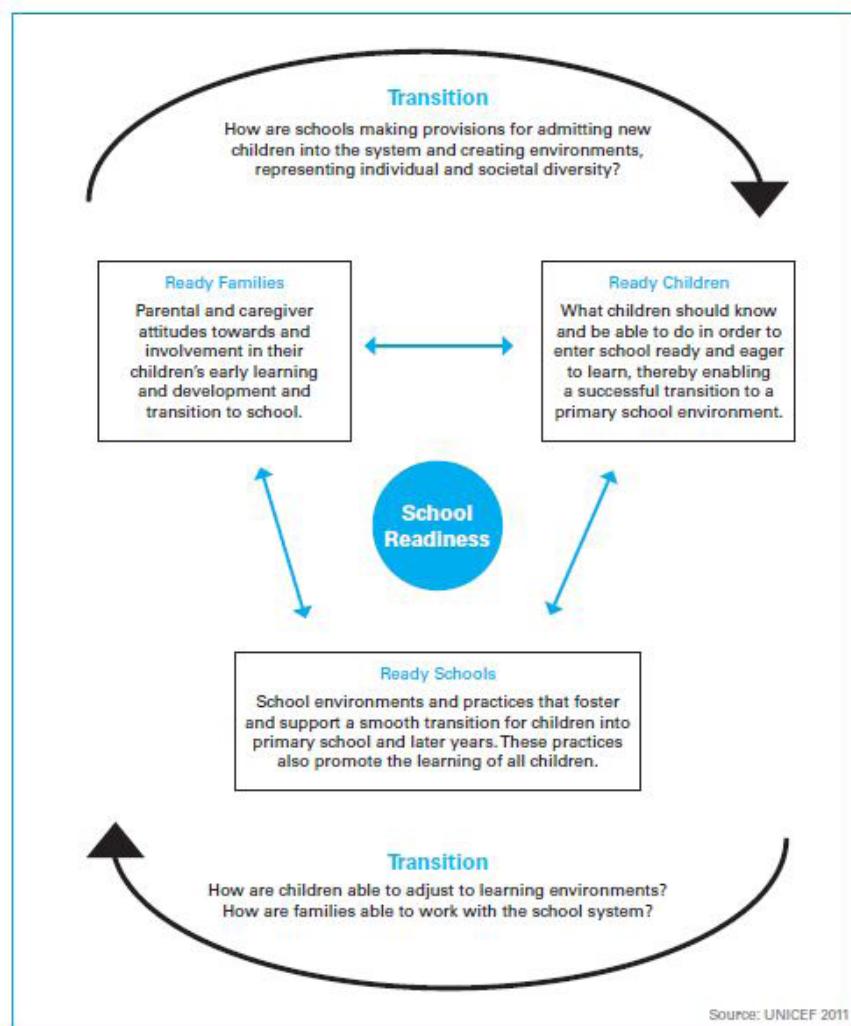
In general, the dimension of ready schools includes the overall quality of the school environment evidenced in such characteristics as sufficient class time devoted to learning; adequate supply of learning materials such as books and teaching aids; and effective teaching, pedagogic practices and teachers' competencies (Britto, 2012).

c) **The 'ready families' dimension** focuses on parental and caregiver attitudes and involvement in their children's early learning, development and transition to school. Supportive parenting and stimulating home environments have been shown to be among the strongest predictors of school performance during pre-primary, primary school and beyond. Parents' educational goals, beliefs, attitudes and commitment are

considered crucial for school success. Parental commitment to ensuring timely enrolment for young children is an important aspect of successful school transition.

Another characteristic of ready families is the learning environment provided in the home, including parents' engagement with their children in learning activities such as singing, reading books, telling stories and playing games. Supportive and responsive relationships within the family are the building blocks of children's social and emotional development and are required for success in school (Pia Rebello Britto, 2012).

School Readiness

Transition
How are schools making provisions for admitting new children into the system and creating environments, representing individual and societal diversity?

Ready Families
Parental and caregiver attitudes towards and involvement in their children's early learning and development and transition to school.

Ready Children
What children should know and be able to do in order to enter school ready and eager to learn, thereby enabling a successful transition to a primary school environment.

School Readiness

Ready Schools
School environments and practices that foster and support a smooth transition for children into primary school and later years. These practices also promote the learning of all children.

Transition
How are children able to adjust to learning environments? How are families able to work with the school system?

Source: UNICEF 2011

Source: UNICEF, 2011

All three dimensions of school readiness are important and must work together to ensure that the time of transition for the child, family and school system is smooth. Interlinked, they support each other in building competencies and preparing for the transition from home to school. School readiness is the foundation of equity and quality education. It is gaining global support as a viable means to help young children reach their full developmental potential and engage in lifelong learning. School readiness is linked to improved academic outcomes in primary and secondary school and positive social and behavioral competencies in adulthood

Application Activity 7.4

- Discuss on the interlinked dimensions of school readiness.

- Why do you think school readiness is important for learner's learning?

End Unit Assessment

With what you have learned in this unit, make a description of specific actions which will support learners to transition smoothly from one level of learning or activity to the next.

UNIT
8

INTRODUCTION TO EDUCATIONAL PSYCHOLOGY

Key unit competence: Explain the importance of educational psychology in teaching and learning process.

Introductory Activity

In Year One, you have learned about the term education and its related concepts. You also have knowledge about psychology what do you think is the relationship between the two fields of study? Is that relationship linked to teaching and learning process?

With concrete examples, justify what you think can be the importance of educational psychology to a teacher.

8.1. Concepts of educational psychology

Explain the nature and scope of educational psychology.

Activity 8.1

From the knowledge you have about terminologies related to education and psychology, what is educational psychology and what do you think is the work of educational psychologist?

Referring to your knowledge acquired in year one, list the key words related to both education and psychology.

Define those terms and relate them to teaching and learning process.

8.1.1. Defining Educational psychology

Educational psychology is a combination of two separate fields of study; psychology and education. It is a distinct discipline with its own theories, research methods, problems and techniques. Better to elaborate and show its theories, its research methods, its problems and techniques. Write a brief paragraph that explains all these

Educational psychology is one of the branches of psychology that study the behavior of the learner in relation to his/her education. As specialized branch of psychology, it concerns itself with suggesting ways and means of improving the process and products of education, enabling the teacher to teach effectively and help learners to learn effectively.

In short, it is the scientific discipline that addresses the questions: "Why do some students learn more than others?" and "What can be done to improve that learning?"

8.1.2. Nature of educational psychology

Its nature is scientific as it has been accepted that it is the Science of Education. We can summarize the nature of Educational Psychology in the following ways:

a. **Educational psychology is a science**. Science is a branch of study concerned with observation of facts and establishment of verifiable general laws. Science employs certain objective methods for the collection of data. It has its objectives of understanding, explaining, predicting and control of facts. Like any other science, educational psychology has also developed objective methods of collection of data. It also aims at understanding, predicting and controlling human behavior.

b. **Educational psychology is a natural science.** An educational psychologist conducts investigations, gathers data and reaches conclusions in exactly the same manner as the physicist or biologist do.

c. **Educational psychology is a social science.** Like the sociologist, anthropologist, economist or political scientist, the educational psychologist studies human beings and their sociability.

d. **Educational psychology is a positive science.** Normative science like Logic or Ethics deals with facts as they ought to be. A positive science deals with facts as they are or as they operate. Educational psychology studies the child's behavior as it is, not, as it ought to be. So, it is a positive science.

e. **Educational psychology is an applied science.** It is the application of psychological principles in the field of education. By applying the principles and techniques of psychology, it tries to study the behavior and experiences of the pupils. As a branch of psychology, it is parallel to any other applied psychology. For example, educational psychology draws heavily facts from such areas as developmental psychology, clinical psychology, abnormal psychology and social psychology.

f. Educational psychology is a developing or growing science. It is concerned with new and ever new researches. As research findings accumulate, educational psychologists get better insight into the child's nature and behavior.

While general science deals with behavior of the individuals in various spheres, educational psychology studies the behavior of the individual in educational setting only.

8.1.3. Scope of educational psychology

Educational psychology is concerned with children and young people in educational and early year's settings. Educational psychologists tackle challenges such as learning difficulties, social and emotional problems, and issues around disability as well as more complex developmental disorders.

They work in a variety of ways including observations, interviews and assessments and offer consultation, advice and support to teachers, parents, the wider community as well as the young people concerned.

They research innovative ways of helping vulnerable young people and often train teachers, learning support assistants and others working with children. Education authorities employ the majority of educational psychologists.

They work in schools, colleges, nurseries and special units, primarily with teachers and parents.

They regularly liaise with other professionals in education, health and social services, and a growing number work as independent or private consultants.

The work of an educational psychologist can either be directly with a child (assessing progress, giving counselling) or indirectly (through their work with parents, teachers and other professionals). Direct work involves some form of assessment to uncover a child's problem through consultation with professional colleagues, observation, interview or use of test materials.

Interventions might plan learning programmes and collaborative work with a teacher.

Recommendations are then made to determine the most appropriate educational provision for that child.

Educational psychology deals with the behavior of human beings in educational situations. Its main concern is to identify various psychological factors affecting

teaching and learning process. It describes and explains the learning according to scientifically determined principles and facts concerning human behavior. Educational psychology addresses the question – "why do some individual learn more than others?" and "what can be done to improve that learning?"

Therefore, its subject matter is revolved around teaching and learning process and educational psychologists attempt to discover:

- The extent to which the factors of heredity and environment contribute to learning;
- The nature of the learning process;
- The nature of the child;
- The educational significance of individual differences in rate and limit of learning;
- The inner change that occur during learning;
- The relation of teaching procedures to leaning outcomes;
- The most effective techniques for evaluating progress in learning;
- The relative effect upon an individual of formal learning as compared with incidental or informal learning experiences;
- To value the scientific attitude towards education;
- The psychological impact upon learner's attitude of sociological conditions;
- In few words, human learning is the central core of educational psychology.

There are three focal areas in education that concern educational psychologists such as, **learner**, **learning process and learning situation.**

a. The learner

The term learner simply means pupils or students whom individually or collectively make up the classroom setting.

In any learning situation, the learner occupies the first place. Without learners, teaching activities cannot take place.

Teaching in the classroom to a larger extent depends on the personalities, emotional state, developmental stages, cognitive development, and psycho-social wellbeing of learners in the classroom.

Thus, for teaching to be effective a teacher must have in depth knowledge about these qualities in addition to the potentialities of the learners.

b. The learning process

The learning process is the process by which people acquire changes in their behavior, improve performance, reorganize their thinking or reasoning; discover new ways of solving problems, new concept formation, etc.

All the activities that one does in the process of acquiring new information, ideas, skills, techniques and habits can best be described as the learning process.

In formal settings the learning process can be directly observed as in when learners learn how to write, draw, solve arithmetic; talk, etc, or it can as well be indirectly observed as in thinking, reasoning, remembering, problem solving and perception.

What concerns educational psychologists is the way in which this learning process takes place.

They are eager to find out and know what happens when students learn and why they learn. This is related to the question "how do people learn?"

c. The learning situation

This refers to the learning environment in which learning takes place and in which learners find themselves.

All the situational factors and personal factors that surround learning activities form the learning situation. These may include the classroom setting, the emotional climate of the classroom, school and the attitude the community has towards the school activities.

In some situations, learning is facilitated when teachers have a sympathetic attitude, when classrooms are well ventilated, sitting arrangement is conducive, and learners have affection towards each other.

On the other hand, in some situations, the learning process is impeded when the teacher is harsh, and the school surrounding is not conducive and the school authority does not care about the welfare of learners.

Therefore, the educational psychologist is interested in finding out which environment positively facilitates learning and which does not.

8.1.4. Learning as a concept related to educational psychology

a) Definition of learning

Behaviorists define learning as a relatively permanent change in behavior and mental processes resulting from experience. Behaviorism is a school of psychology (view or theory) which came up with theories defining learning as "a semi-permanent change in behavior". They argue that learning has only taken place if a change in behavior is evident (observable).

Pure behaviorists are not concerned with internal processes, but with external exhibitions. There are main theories involved: classical and operant conditionings. Therefore, learning is defined as a lifelong process of acquiring knowledge, skills and positive behavior and other elements of the culture from one generation to another.

b) Types of learning

There are so many types of learning among them we can list the following:
- Rote learning
- Meaningful learning
- Imitation learning
- E-learning

1. Rote learning

It is memorizing information so that it can be recalled by the learner exactly the way it was read or heard. The major technique used for rote learning **is learning by repetition**, based on the idea that a learner can recall the material exactly (but not its meaning) if the information is repeatedly processed**.**

2. **Meaningful learning**

This is the concept whereby learned knowledge (e.g., a fact) is fully understood to the extent that it relates to other knowledge. To this end, meaningful learning contrasts with rote learning in which information is acquired without regard to understanding. Meaningful learning, on the other hand, implies there is a comprehensive knowledge of the context of the facts learned.

3. Imitation learning

Imitation learning is also referred to as observational or modelling or social learning. Bandura and Walters are the major supporters of this theory. Imitation learning assumes that people learn social behaviour mainly through observation mental processing of information and modelling what they observe the main models for children include parents, caregivers, teachers and peers. For example, students can imitate their teachers in how they motivate them.

4. E-learning or Electronic learning

E-learning refers to the use of Information and Communication Technologies to enable the access to online learning/teaching resources. In its broadest sense, Abbad et al. (2009), defined E-learning as any learning that is enabled electronically. They however narrowed this definition down to mean learning that is empowered by the use of digital technologies. This definition is further narrowed by some researchers as any learning that is internet-enabled or web-based (LaRose et al., 1998; Keller and Cernerud, 2002).

Application Activity 8.1

1) Summarize what you know about nature educational psychology.

2) Make a paragraph highlighting the importance of works of educational psychology

8.2. Importance of educational psychology

Activity 8.2

For you as a future teacher, justify the significance of educational psychology to any professional teacher.

Referring to the focal area that concern educational psychologist the following are the points which show the importance of education psychology in education. It also shows how educational psychology and education have importance for specifically the learner and the teacher as well as other educationists. Its importance is clearly explained referring to those focal areas.

1. Learner

Educational psychology studies various factors which have impacts upon students, which may include home environment, social groupings, peer groups, his / her emotional sentiments, and mental hygiene etc. Various methods are used in order to get the desired data about the learner in order to know about him / her mentality and behaviour and its manifestations.

2. The learning process

Here educational psychology investigates how information and knowledge can be transferred and what kinds of methodologies should be used for that purpose.

3. Learning situation

Educational psychology studies the factors which are situational in nature that show how an environment like that of classroom should be managed and how discipline should be maintained. Besides it, it studies various Audio Video Aids & its role in facilitating the teaching learning process.

4. Curriculum development

Educational psychology helps curriculum developers to determine what kind of curriculum that should be made and what kinds of content that should be given to teachers to transfer to the next generation.

5. Evaluation techniques

Educational psychology helps educators to understand what kinds of evaluation techniques should be used to test the learner and to evaluate to what extend information and concept have been transferred.

Application Activity 8.2

Summarize what you know about different terminologies related to educational psychology.

As a prospective teacher, explain how the knowledge of educational psychology will help you in your future career.

End Unit Assessment

As a teacher, give advice to a graduate in accountancy who is insisting that even though he/she did not attend teacher education program he/she can be a competent teacher like a professional one.

UNIT 9

THEORIES OF LEARNING

Key unit competence: Demonstrate how theories of learning can be applied in classroom situations.

Introductory activity

In year one, you have learnt different theories of human development and pedagogical approaches, key concepts about education, schooling, learning. Read information about different theorists who contributed ideas about learning, memory, and behavior.

- What impact do these theorists have had on teaching and learning?

9.1. Behavioral learning theories

This theory was developed by different behaviorists. They include John B. Watson, Ivan P. Pavlov, B. Frederick Skinner and others like Edward L., Thorndike. Behaviourists argue that because thought processes cannot be directly observed and measured, it is difficult to study thinking objectively and scientifically. Instead, they focus on two things that researchers can observe and measure: people's behaviours (responses) and the environmental events (stimuli, reinforcement) that precede and follow those responses. Behavioural theories define learning as a "semi-permanent change in behaviour." In other words, learning has only taken place if a change in behaviour is evident (Slavin, 2012).

John B. Watson, who is generally credited as the first behaviourist, argued that the inner experiences that were the focus of psychology could not be properly studied as they were not observable. Instead he turned to laboratory experimentation. The result was the generation of the stimulus-response model. In this the environment is seen as providing stimuli to which individuals develop responses.

Three key assumptions underpin this view:

- Observable behaviours rather than internal thought processes are the focus of study. In particular, learning is manifested by a change in behaviour.

- The environment shapes one's behaviour; what one learns is determined by the elements in the environment, not by the individual learner.

- The principles of contiguity (how close in time two events must be for a bond to be formed) and reinforcement (any means of increasing the likelihood that an event will be repeated) are central to explaining the learning process.

There are two main theories involved: Classical conditioning and operant conditioning.

9.1.1. Classical conditioning

Activity 9.1.1

When you are at school, you are used to take lunch around 12:00am. What happens when you go to the dining room and you find that the food is not yet ready or when they have prepared delicious food you like?

a) Origin of classical conditioning

Classical conditioning stems from Ivan Pavlov's experiment with salivating dogs. Its basic premise is that behaviors can be conditioned by pairing stimuli with responses. Educational examples may include test anxiety or a general dislike or enjoyment of a subject. In classical conditioning, responses are involuntary or biological.

Classical conditioning is a learning process in which an association is made between two stimuli. With classical conditioning, two stimuli are linked together to produce a new learned response. One stimulus is a neutral and the other evokes a natural response. After learning the association, the neutral stimulus elicits the conditioned response.
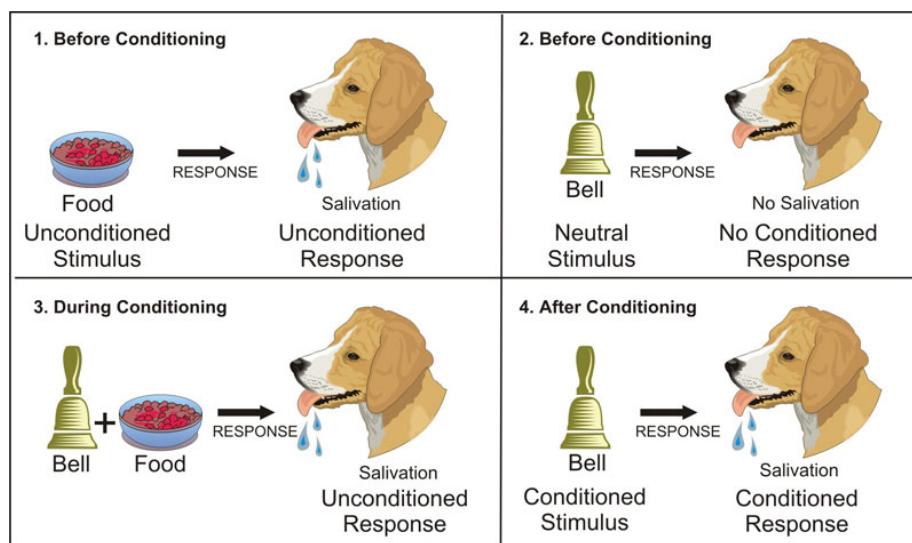
The theory of classical conditioning was introduced by Russian physiologist, Ivan Pavlov. Pavlov conducted his classic experiment involving dogs.

In his experiment, he conditioned the dogs to associate the sound of a bell with the presence of food. He paired the smell of food which was the naturally occurring stimulus with the neutral stimulus of a ringing bell. Once an association had been made between the two, the sound of the bell alone could elicit a response. The dogs responded to the sound of the bell by salivating.

In his experiment, the bell was neutral stimulus since the bell itself did not produce the dogs' salivation. However, by pairing the bell with the stimulus of the smell of the food, which did produce the salivation response, eventually, the bell by itself was able to trigger the salivation response. Thus, the "conditioning" was achieved when the sound of the bell on its own was able to make the dogs salivate in anticipation for the food (Slavin, 2012).

b) Stages of classical conditioning

There are three stages of classical conditioning. At each stage the stimuli and responses are given special scientific terms. The illustration below summarises the stages of classical conditionning:

Classical Conditioning
Source: https://www.wattsburg.org/Unit5Learning.aspx

Stage 1: Before Conditioning

In this stage, the unconditioned stimulus (**UCS**) produces an unconditioned response (**UCR**) in an organism. In basic terms, this means that a stimulus in the environment has produced a behaviour / response which is unlearned (i.e., unconditioned) and therefore is a natural response which has not been taught. In this respect, no new behaviour has been learned yet.

For example, a stomach virus (UCS) would produce a response of nausea (UCR). In another example, a perfume (UCS) could create a response of happiness (UCR).

This stage also involves another stimulus which has no effect on a person and is called the neutral stimulus (**NS**). The NS could be a person, object, place, etc. The neutral stimulus in classical conditioning does not produce a response until it is paired with the unconditioned stimulus.

Stage 2: During Conditioning

During this stage a stimulus which produces no response (i.e., neutral) is associated with the unconditioned stimulus at which point it now becomes known as the conditioned stimulus (**CS**). **For example**, a stomach virus (UCS) might be associated with eating a certain food such as chocolate (CS). Also, perfume (UCS) might be associated with a specific person (CS).

Often during this stage, the UCS must be associated with the CS on a number of occasions, or trials, for learning to take place. However, one trial learning can happen on certain occasions when it is not necessary for an association to be strengthened over time (such as being sick after food poisoning or drinking too much alcohol).

Stage 3: After Conditioning

Now the conditioned stimulus (**CS**) has been associated with the unconditioned stimulus (**UCS**) to create a new conditioned response (**CR**). **For example**, a person (CS) who has been associated with nice perfume (UCS) is now found attractive (CR). Also, chocolate (CS) which was eaten before a person was sick with a virus (UCS) now produces a response of nausea (CR) (Slavin, 2012).

c) Principles/characteristics/findings in classical conditioning

- **Acquisition phase:** This is the period during which an organism learns to associate the conditioned stimulus with the unconditioned stimulus.

- **Generalization:** This is the principle by which a stimulus similar to, but not identical with, the CS, elicits a CR. The more similar a new stimulus to the original CS, the more likely it is to elicit the CR.

- **Discrimination**: The organism learns to differentiate CS with other similar stimuli.

- **Extinction:** Extinction or cessation of the CR, occurs when the CS is presented repeatedly without the UCS. Once extinguished, a CR can be reactivated in much less time than it took to acquire it in the first place.

- **Spontaneous Recovery:** A CR will sometimes reappear spontaneously after extinction.

- **Higher Order Conditioning:** With its newly acquired strength, the CS can be used to condition the same response to other stimuli.

d) Applications of classical conditioning theory in teaching

- Teachers should avoid presenting fear-eliciting stimuli such as ridicule, bitter remarks, open hostility in the classroom, etc. otherwise learners may learn (be conditioned) to fear or hate school because of painful experiences.

- In stimulus discrimination, Pavlov noticed that the dog restricted its responses to one stimulus that had been reinforced while responses to other stimuli had not. The implication for a teacher is that when teaching, he/she should identify the most important aspects of the lesson and emphasize them. Also, a teacher should give a clear distinction of similar concepts or topics so that learners are able to distinguish between them.

- In order for the dog to be conditioned, Pavlov made several pairings of the bell and food. Therefore, the implication for a teacher here is that he/she should give learners more opportunities to use and repeat the knowledge they have acquired.

- A teacher should apply the principle of extinction in a classroom situation by reinforcing desired behaviours and extinguishing undesired ones. For instance, good performance in the lesson should be paired with secondary reinforcers such as verbal praise, prizes and good grades.

- In spontaneous recovery, Pavlov noticed that after the dog had rested it would still elicit a response that had been extinguished. The dog would recall its earlier learning. The classroom implication for a teacher here is that he/she should give pause to learners and afterwards resume. This enhances internalization of learnt material.

Application Activity 9.1.1

1) Explain how you will apply the classical conditioning theory in teaching during the school attachment.
2) Give examples of classical conditioning in everyday life.
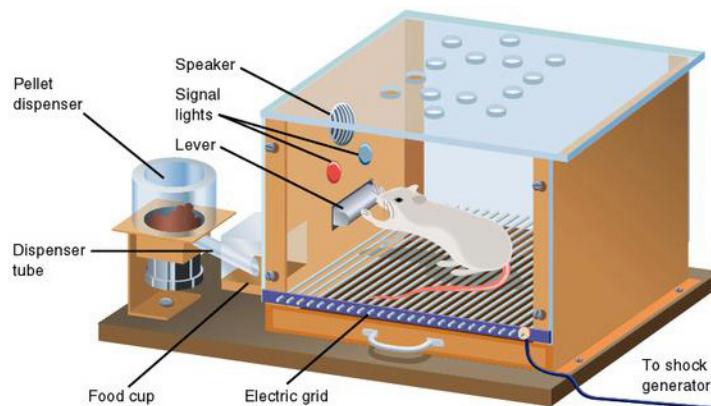
9.1.2 Operant conditioning

> ### Activity 9.1.2
>
> When you are supposed to do morning work and you don't do it appropriately, what will happen?

a) Origin of operant conditioning

Operant conditioning stems from the work of B.F. Skinner and involves the use of reinforcement to encourage behaviours. There are several kinds of reinforcers, and reinforcers may vary from student to student. Responses are voluntary or chosen in operant conditioning.
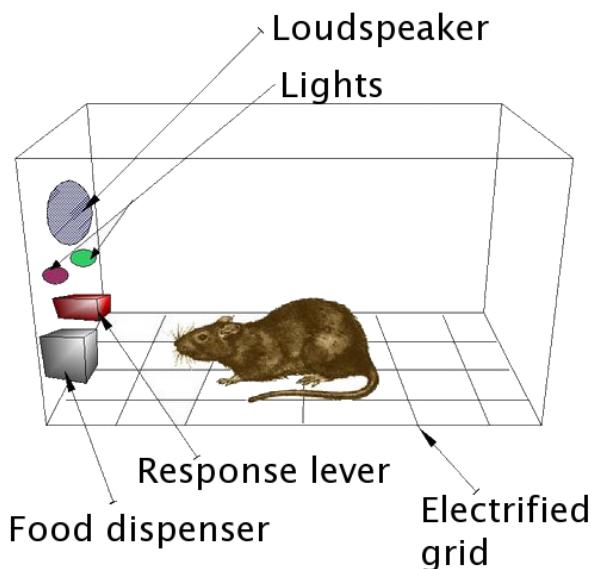
Operant conditioning is a learning process in which responses are controlled by consequences. The likelihood of a certain response occurring is either increased or decreased due to either a reinforcement or a punishment consequence. Reinforcement helps to increase a behaviour, while a punishment helps to decrease a behaviour. The term operant conditioning was coined by a behaviourist B.F. Skinner. Skinner conducted experiments with rats using a device called the Skinner box. The box was a cage set up so the rats could automatically get a food reward if they stepped on a lever. The lever caused food to be released.

Source: https://www.simplypsychology.org/operant-conditioning.html

b) Role of reinforcement and punishment in operant conditioning

From the above experiments, Skinner observed how reinforcement could lead to increases in behaviours whereas punishment would result in decreases in behaviours (Slavin, 2012).

Loudspeaker
Lights
Response lever
Food dispenser
Electrified grid

- **Reinforcement**

The reinforcement is a consequence that increases the likelihood a response will occur. If you are using reinforcement, you are trying to increase a behaviour. There are two types of reinforcement:

- **Positive reinforcement** – Positive reinforcement means adding a stimulus. Thus, positive reinforcement is the addition of a good stimulus after a response in order to encourage the response to continue. An example of this would be giving someone praise after a desired behaviour is displayed.

- **Negative reinforcement** – Is the removal of an undesirable stimulus after a response so that the response will occur more often. An example of this would be fastening your seatbelt in a car so the beeping sound will stop. Since the undesirable stimulus is removed when you fasten your seatbelt, you are encouraged to fasten your seatbelt. Negative reinforcement is often confused with punishment because of its name. However, negative reinforcement involves removing a negative consequence to increase a behaviour, while punishment seeks to decrease a behaviour (Slavin, 2012).

- **Punishment**

Punishment is a consequence that decreases the likelihood a response will occur. If you are using punishment, you are trying to decrease a behaviour. There are two types of punishment:

- **Positive punishment** – Is the addition of an undesirable stimulus after a response so that the response will occur less or stop. An example would be to give someone extra work for misbehaving.
- **Negative punishment** – Is the removal of a pleasing stimulus after a response so that the response will occur less or stop. An example would be taking away television or video games from a child for misbehaving so he or she will stop misbehaving.

c) Principles of operant conditioning:

- **The law of effect**: it states that a response that followed by satisfying or pleasant consequences (reward) tends to be repeated, while a response followed by unpleasant consequence (punishment) tend not to be repeated.

- **Law of exercise**: "law of use and disuse". It states that the more S-R connection is used, the stronger it will become. The less it is used, the weaker it will be (law of disuse).

- **The law of readiness**: when an organism is in a state in which S-R connections are ready to conduct learning, learning is satisfying otherwise it is annoying.

- **The law of similarity of stimuli**: the more similar the stimuli are, the greater the chance that corrects response will be supplied by the organism.

- **The law of contiguity/ immediacy**: it states that the reinforcement should be very close to when the response is made.

- The law of spacing: as the organism needs time for the new learning to settle and be meaningful, the more spaced out stimuli are in terms of time, the better the responses are likely to be in terms of correctness.

d)Reinforcement schedules

A little application of economic thought lead Skinner to find out if all behaviours have to be reinforced consecutively, Conceptually Skinner determined that reinforcement could take five combinations as follows:

- **Continuous reinforcement**: whereby every correct response is rewarded. Or said otherwise, behaviour is followed by its consequence each time it occurs.

- **Intermittent reinforcement:** this is based either on the passage of time (interval schedules). The consequence can be delivered based on the amount of passage of time or the same number of correct responses that vary around a particular number (variable).

Apparently, it was the variable interval administration of reinforcement that was most effective and efficiency in strengthening the bound between stimulus and response. Probably that is why human life is programmed as well. We do not get reward for everything we do, but hope and keeping hoping that our correct behaviour will one day get appreciated through rewards. This helps to maintain motivation and performance.

e) Types of reinforcers

There are three types of reinforcers:

- **Primary reinforcers:** stimulus acting as reinforcer without learning, example food. We don't learn that eating is good. Likewise, thirsty for water. Other people would include sex; the pleasure of it is unlearned. All these are based on human drives which have a physiological base. Their satisfaction is consistent with theory of drive need reduction. They are essential for maintaining homeostasis or physical balance.

- **Secondary reinforcers**: previously neutral stimulus has repeatedly paired with primary reinforcers. **Example:** the baby with the bottle, whenever he sees the bottle, smiles even when there is no milk. This is the classical conditioning as we saw it in Pavlov's experiment.

- **Generalised reinforcers:** stimuli become reinforcers through repeated pairings with primary and secondary reinforcers. These are secondary reinforcer that has become independent from being linked to primary reinforcers. Secondary reinforcers may gain their values when they can be exchanged for primary reinforcers. Examples: in human behaviour, wealth, power, fame, strength and intelligence are valued in many cultures. The external symbols of these attributes which are: money, rank, recognition, degrees and certificates, etc. are considered as generalised reinforcers.

f) Educational implications of operant conditioning theory of learning

- Teachers should decide what behaviour they want from students and reinforce when such behaviour occurs. Praise or reward good work done, do not reward or praise work that is not up to a student's capability. Learning objectives should be defined very specifically in terms of behaviour.

- Teachers should be aware of the timing of reinforcement. Obviously, it is impossible to reinforce all good behaviour, but if a teacher decides that a certain behaviour is critical, then he/she should reinforce it immediately just as the rat would immediately receive reinforcement after pressing the bar in the operant conditioning experiment.

- Punishment may cause more problems than it solves. A teacher should use it carefully, although there are occasions when nothing else can suffice. If possible, let the offending student do something else. If a teacher punishes a student, he/she should later let the student do something that can lead to being positively reinforced. Punishment should not produce hostile and defiant students who will see teachers as punishing agents. A teacher should provide feedback on progress and link rewards with progress.

- In the operant conditioning experiment whenever the rat pressed the bar it received reinforcement. Therefore, teachers should not reinforce behaviours in class in a haphazard manner. Each correct response of a learner should be reinforced.

Application Activity 9.1.2

Explain how operant conditioning process link to teaching/education by writing short case studies with classroom-based examples.

9.1.3 Trial and error learning (Edward Lee Thorndike)

Activity 9.1.3

You are at home alone and you get hungry; at this time your parents who used to prepare food for you, have gone for work. What will you do?
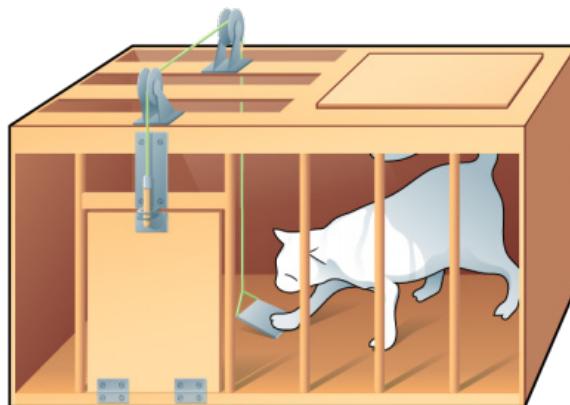
Trial and error theory of learning was put forward by a famous psychologist Edward Lee THORNDIKE (1874-1949). He conducted different experiments on chicken, rats, and cats. Thorndike explained this theory and he arrived at it after a number of experiments. According to him learning takes place through a process of approximation and correction. A person makes a number of trials some responses do not give satisfaction to the individual, but he goes on making further trial till he gets satisfactory response.

a) Cat experiment by Thorndike

Thorndike put a cat in a puzzle-box with iron bars on the sides, and a door which could be opened by catching and pulling a loop which was bending above in the centre of the box.

The cat, hungry for 24 hours, had the motivation of eating fish outside the box. But how to open the door? The cat made several unsuccessful attempts of biting the irons, striking head against these, and finally it was successful in pulling the loop.

The same experiment was repeated several times and it was found that the cat in each successive attempt took less time in reaching the goal. It took 160 seconds for the first successful attempt, but a few seconds for the last trial.

b) Limitations of trial and error learning theory

Some limitations related to trial and errors theory are:

- **Energy consuming:** The theory requires a good deal of energy because transfer of learning is minimum under trial and error.

- **Random efforts**: It is not desirable to do random efforts because doing anything without insight is meaningless. The theory ignores the role of understanding, experience, discrimination and insight in learning.

- **Emphasis on rote learning:** The theory over-emphasizes the role of rote learning.

- **Not much useful for bright students:** The theory may be useful for less intelligent and backward students but not much useful for bright and intelligent students.

- **Not much useful for higher classes**: The theory is useful in case of students of lower classes, but for students of higher classes, the theory does not provide much guidance.

c) Implications of trial and error learning

Teachers should encourage the pupils or students to try school tasks that seem to be hard for them as people learn from trying and making some errors that are eliminated during the process of learning.

Application Activity 9.1.3

Identify 4 examples based on every day and experiences where children and adult people learn through trial and errors

9.1.4. Educational implications of behaviorism theory of learning

Activity 9.1.4

Based on Knowledge gained from behaviorism theories, discuss what teachers and parents can do to promote learning.

In the conventional learning situation operant conditioning applies largely to issues of class and student management, rather than to learning content. It is very relevant to shaping skill performance. A simple way to shape behaviour is to provide feedback on learner performance, e.g. compliments, approval, encouragement, and affirmation.

A teacher can apply classical conditioning her/his advantage by helping her students to build positive associations between their learning activities and things that they already love. For example, s/he might invite students to read in an area with comfortable loft pillows and stuffed animals. S/he might create mathematics activities that include outdoor games. S/he can also help students to overcome negative associations (such as test anxiety), by slowly building a new set of associations with the students (i.e. test day is also treat day; introducing authentic assessment activities that are enjoyable, etc.) (Jack Snowman, 2015).

Instead of rewarding individual children, based on behaviour or performance, which can create competition and be demotivating, a teacher can create a reinforcement program in which the entire class or several large groups of children must depend on each other's good behaviour to receive positive reinforcers.

Tips for applying behaviourism in the classroom
- Make students active; give them chance to practice and show what they know.

- Build positive associations with learning tasks.

- Give students frequent and repeated practice, in varied contexts.

- Break tasks into achievable steps and provide positive reinforcement for achieving each step.

- Give verbal and non-verbal encouragement to reinforce both participation and success.

- Award "bonus points" to provide students with an incentive to go beyond the assigned task.

- Make learning objectives clear so that whether they are achieved is visible

- Use reinforcements immediately following the desired behaviour.

- Use the least tangible or elaborate reinforce that will work (i.e. compliments vs. prizes).

- Avoid punishments and try reinforcements instead, as much as possible.

- Establish classroom rules and routines so that students know what is expected of them.

- Teachers should avoid presenting fear-eliciting stimuli such as ridicule, bitter remarks, open hostility in the classroom etc. Otherwise learners may learn (be conditioned) to fear or hate school because of painful experience.

- In stimulus discrimination, Pavlov noticed that the dog restricted its responses to one stimulus that had been reinforced while responses to other stimuli had not. That implies that teachers when teaching they should identify the most important aspects of the lesson and emphasize them (Jack Snowman, 2015).

- In order for the dog to be conditioned, Pavlov made several pairing s of the bell and food. So, teachers should give more opportunities to use and repeat the knowledge then have acquired.

- Teachers should apply the principle of extinction in the classroom situation by reinforcing desired behaviors extinguishing undesired ones.

- In spontaneous recovery, Pavlov noticed that after the dog had rested, it would still elicit a response that had been extinguished. The dog would recall its earlier learning. The same; teachers should give pause to learners and afterwards resume so as enhancing internalization of learnt material.

- To maintain connection for longer period teacher should again review learnt materials just as Pavlov made the dog use earlier conditioned stimulus after it had rested by ringing the bell again. Maintaining a firm connection between stimulus and response for a long time is higher order conditioning (Jack Snowman, 2015).

- Teachers should decide what behavior they want from students and reinforce them when such behaviors occur by rewarding or praising them.

- Teachers should be aware of the timing of reinforcement (rewarding the important behavior).

- Teachers should use carefully punishment because it may cause more problems than it involves. If a teacher punishes a student, he/she should later let the student do something that can lead to being positively reinforced so as to avoid punishment produce hostile and sees teachers as punishing agent.

- The teacher should provide feedback on progress and link rewards with progress.

- Results of evaluation should be used to reward or to guide learners towards improvement.

- Active involvement of learners should imply doing more exercises to acquire.

Application Activity 9.1.4

Explain the educational implication of behaviourism theory of learning.

9.2. Cognitive learning theories

Activity 9.2.1

- Why do some students learn and recall information learned more than others?
- What can be done to improve that learning?

9.2.1. Cognitivism Overview

In psychology, cognitivism is a theoretical framework for understanding the mind that gained credence in the 1950s. The movement was a response to behaviorism, which cognitivists said neglected to explain cognition. Cognitive psychology derived its name from the Latin *cognoscere*, referring to knowing and information. Thus cognitive psychology is an information-processing psychology derived in part from earlier traditions of the investigation of thought and problem solving. Behaviorists acknowledged the existence of thinking, but identified it as a behavior. Cognitivists argued that the way people think impacts their behavior and therefore cannot be a behavior in and of itself. Cognitivists later argued that thinking is so essential to psychology that the study of thinking should become its own field.

Cognitivism has two major components, one methodological, the other theoretical. Methodologically, cognitivism adopts a positivist approach and the belief that psychology can be (in principle) fully explained by the use of experiment, measurement and the scientific method. This is also largely a reductionist goal, with the belief that individual components of mental function the cognitive architecture, can be identified and meaningfully understood. The second is the belief that cognition consists of discrete, internal mental states (representations or symbols) whose manipulation can be described in terms of rules or algorithms.

Cognitivism became the dominant force in psychology in the late-20th century, replacing behaviorism as the most popular paradigm for understanding mental function. Cognitive psychology is not a wholesale refutation of behaviorism, but rather an expansion that accepts that mental states exist. This was due to the increasing criticism towards the end of the 1950s of simplistic learning models. The main issues that interest cognitive psychologists are the inner mechanisms of human thought and the processes of knowing. Cognitive psychologists have attempted to shed some light on the alleged mental structures that stand in a causal relationship to our physical actions.

Cognitive theory defines learning as "a semi-permanent change in mental processes or associations." The cognitive approach to learning theory pays more attention to what goes on inside the learner's head and focuses on mental processes rather than observable behavior. Changes in behavior are observed,and used as indicators as to what is happening inside the learner's mind. The main assumption of cognitive psychology is that there are cognitive processes that take place and influence the way things are learned.

Stage theory of cognitive development

According to psychologist Jean Piaget, children progress through a series of four key stages of cognitive development. Each stage is marked by shifts in how kids understand the world. Piaget believed that children are like little scientists and that they actively try to explore and make sense of the world around them. Through his observations of his own children, Piaget developed a stage theory of intellectual development that included four distinct stages: the sensorimotor stage, from birth to age 2; the preoperational stage, from age 2 to about age 7; the concrete operational stage, from age 7 to 11; and the formal operational stage, which begins in adolescence and spans into adulthood.

Piaget's stage theory describes the cognitive development of children. Cognitive development involves changes in cognitive process and abilities. In Piaget's view, early cognitive development involves processes based upon actions and later progresses into changes in mental operations.

A quick summary of cognitive development
- The Sensorimotor Stage: During this stage, infants and toddlers acquire knowledge through sensory experiences and manipulating objects.
- The Preoperational Stage: At this stage, kids learn through pretend play but still struggle with logic and taking the point of view of other people.
- The Concrete Operational Stage: Kids at this point of development begin to think more logically, but their thinking can also be very rigid. They tend to struggle with abstract and hypothetical concepts.
- The Formal Operational Stage: The final stage of Piaget's theory involves an increase in logic, the ability to use deductive reasoning, and an understanding of abstract ideas.

It is important to note that Piaget did not view children's intellectual development at a quantitative process; that is, kids do not just add more information and knowledge to their existing knowledge as they get older. Instead, Piaget suggested that there is a qualitative change in how children think as they gradually process through these four stages. A child at age 7 doesn't just have more information about the world than he did at age 2; there is a fundamental change in how he thinks about the world.

9.2.2. *Insight learning/Gestalt theory or Intuition*

Activity 9.2.2

What do you do when you are stuck in problematic situation?

This type of learning falls into cognitive theories of learning. It is a result of gestalt theory of learning among these theories. It is resulted from the work/ contribution of group of German psychologist Marx WERTHEIMER, Kurt KOFFKA and Wolfgang KÖHLER . Their work is known as gestalt psychology which means the scientific study of form or shape or configuration. According to this theory, perceptual phenomena are only experienced as **a whole**.

Learning is not by random steps not by trial and error, not by conditioning but insight (understanding)

To demonstrate insight learning, Köhler placed a chimpanzee called Sultan in cage with a banana just beyond the bars of the cage. Sticks were put in the cage that could be used to take the food to the chimpanzee's reach.

The process of learning to reach the food was slow, but it was eventually accomplished when the chimpanzee joined two sticks together. The first joining of the sticks appeared to be almost accidental. It occurred when two sticks happened to be placed approximately end-to-end.

The chimpanzee was then able to perceive the relationship and use the two sticks to reach the food. The process of perceiving relationships is called **insight (sudden understanding).** Human learning and perception according to gestalt psychologists are influenced by the way stimuli are arranged and their arrangement may have more meaning than the stimuli themselves.

In the cognitive theory of learning, the learner is considered as already having a complex of attitudes and skills from his/her previous experience. The learner therefore perceives the learning as a whole or as a configuration and then responds to the elements of configuration he/ she sees as being significant to him or her. Doing so, he/ she organizes the stimuli in the learning situation into a meaningful pattern.

Therefore, according to gestalt theory, learning is not mere linking of associations in the learner mind but it involves arrangement of the previous ideas and experiences acquired into the present environment hence forming patterns of thoughts.

For them (eg. Köhler) learning was about:

- Gaining insight into the nature of the problem and its solution.
- Use of intuition and decision making.
- Gaining a perceptual whole.
- Mental organization and formation of mental structures.
- Construction of cognitive maps and new configurations.
- Active search for meaning and new relationships.

Classroom implications of gestalt theory of learning

- The teacher when teaching should normally organize students' experience or prior knowledge into meaningful patterns so that the students gain insight of what is being imparted to them.
- When planning a lesson, a teacher should include starting with things which are familiar and basing each step on things that students have already prior knowledge or experience or perception.
- The teacher should avoid mechanical and blind drills (repeated exercises) instead, his/her lesson structure should be based on comprehension/ understanding as opposed to mere memorization.
- When a skill has been acquired through insight, repeated application of this in normal situation should be encouraged.
- Motivation is needed for learners.
- The teacher should develop problem solving attitudes to the learners.
- The teacher should encourage reasoning, develops thinking, trains imagination and creative activities.

Application Activity 9.2.2

What are the educational implications of gestalt theory?

9.2.3. Educational implications of cognitivism theories of learning

Cognitive theory has applications in classroom situations

- Use graphic organizers (visual representations of information and concepts)

- Allow for elaboration (expand and personalize concepts to make them meaningful)

- Let students know what information is most important to learn

- Present the same ideas in more than one form

- Show students how new material relates to things they already know

- Encourage students to form visual images that capture the things they are studying

- Begin at a level consistent with students' existing knowledge base

- Help students understand the logic behind the procedures they are learning (explain why)

- Break complex skills into simpler tasks that students can practice one at a time

- Provide opportunities for practice and feedback

- The teacher when teaching should normally organize students' experience or prior knowledge into meaningful patterns so that the students gain insight of what is being imparted to them.

- When planning a lesson, a teacher should include starting with things which are familiar and basing each step on things that students have already prior knowledge or experience or perception.

- The teacher should avoid mechanical and blind drills (repeated exercises) instead, his/her lesson structure should be based on comprehension/understanding as opposed to mere memorization.

- When a skill has been acquired through insight, repeated application of this in normal situation should be encouraged.

- The teacher should develop problem solving attitudes to the learners.

- The teacher should encourage reasoning, develops thinking, trains imagination and creative activities.

Application Activity 9.2.3

Suggest tips of educational implication on cognitivism theory.

9.2.4. Constructivism (Piaget, Dewey)

Activity 9.2.4

Observe this picture below and answer questions,

What is happen on this picture? Is this activity important? If yes, why?

Constructivism learning theory states that students use cognitive processes to construct knowledge or understanding of the material to be learnt. The student is the key to learning; the students construct knowledge for themselves. Constructivism embraces a "top down" methodology. This means that rather than teaching all details that leads to the main idea, students discover the main idea and then the details. The constructivism learning theory argues that people produce knowledge and form meaning based upon their experiences. Two of the key concepts within the constructivism learning theory which create the construction of an individual's new knowledge are **accommodation** and **assimilation. Assimilating** causes an individual to incorporate new experiences into the old experiences. This causes the individual to develop new outlooks, rethink what were once misunderstandings, and evaluate what is important, ultimately altering their perceptions. Accommodation, on

the other hand, is reframing the world and new experiences into the mental capacity already present. Individuals conceive a particular fashion in which the world operates. When things do not operate within that context, they must accommodate and reframe their understanding and expectations (Woolfolk, 2013).

This theory is used to focus on preparing people to problem solving . Therefore, to be successful, the learner needs a significant base of knowledge upon which to interpret and create ideas. Additionally, with Constructivism, outcomes are not always predictable because learners are constructing their own knowledge.

- **Educational implication of Constructivism theory**

The role of teachers is very important within the constructivism learning theory. Instead of giving a lecture/use teacher talk, the teachers in this theory function as facilitators whose role is to aid/help the student when it comes to their own understanding. This takes focus away from the teacher and lecture and puts it upon the student and their learning. The resources and lesson plans that must be prepared to put this learning theory into practice are quite different from the traditional model. Instead of telling, the teacher must begin asking. Instead of answering questions that only align with their curriculum, the facilitator in this case must make it so that the student comes to the conclusions on their own instead of being told. Also, teachers are continually in conversation with the students, creating a learning experience that is open to new directions depending upon the needs of the student as the learning progresses. Teachers following Piaget's theory of constructivism must challenge the students by making them effective critical thinkers and not being merely a "teacher" but also a mentor, a consultant, and a coach.

In constructivism, students are encouraged to learn main ideas on their own through discovery learning. **Examples** include learning about compound words by playing with word strips, learning about addition and subtraction through the use of manipulative, or learning about capacity through experimentation with different sizes of objects.

Personal theories, or students' own ideas about how things work, play a large role in constructivism as teachers must attempt to provide activities that clarify and correct misconceptions. Additional constructivist strategies include presenting others' viewpoints, promoting dialogue, and emphasizing conceptual understanding rather than rote learning.

Tips for Promoting Effective Knowledge Construction

- Provide opportunities for experimentation
- Present the ideas of others
- Emphasize conceptual understanding
- Use authentic (real-world) activities
- Promote dialogue
- Create a community of learners

Tips for Creating Conceptual Change

- Identify existing misconceptions before instruction begins.
- Convince students that their existing beliefs are inadequate.
- Motivate students to learn correct explanations.
- Monitor what students say and write for persistent misconceptions.

Application Activity 9.2.4

Make a brief description of constructivism theory of learning in classroom environment.

9.2.5 Social constructivism theory (Lev Vygotsky)

Read this short story and reflect on it.

A primary physical education teacher is teaching her students the basics of football. She describes the different positions that team members might play and explains the specific roles that players in each position have. She breaks the class into two teams of eleven players each and assigns each student a specific position on the field. Yet once the ball is in motion, everyone on the field immediately runs for it, resulting in a game of "magnet" ball.

After reading this story, what do you think is missing?

How can you change the situation?

- **Social constructivism**

Social constructivism is a sociological theory of knowledge where in groups, students construct knowledge for one another, collaboratively creating a small culture of shared artifacts with shared meaning. Its origins are largely attributed to LEV VYGOTSKY. He believed that young children are curious and actively involved in their own learning, discovery and development of understanding new schema. However, he placed more emphasis on social contributions to the process of development.

According to Vygotsky, much important learning by the child occurs through social interaction with skillful teacher. The teacher may model behavior and provide verbal instructions to a child. Vygotsky refers to this as co-operative/collaborative dialogue. The child seeks to understand the actions, instructions

provided by the tutors (often parents or teachers) then, internalize the information using it to guide or regulate his own performance.
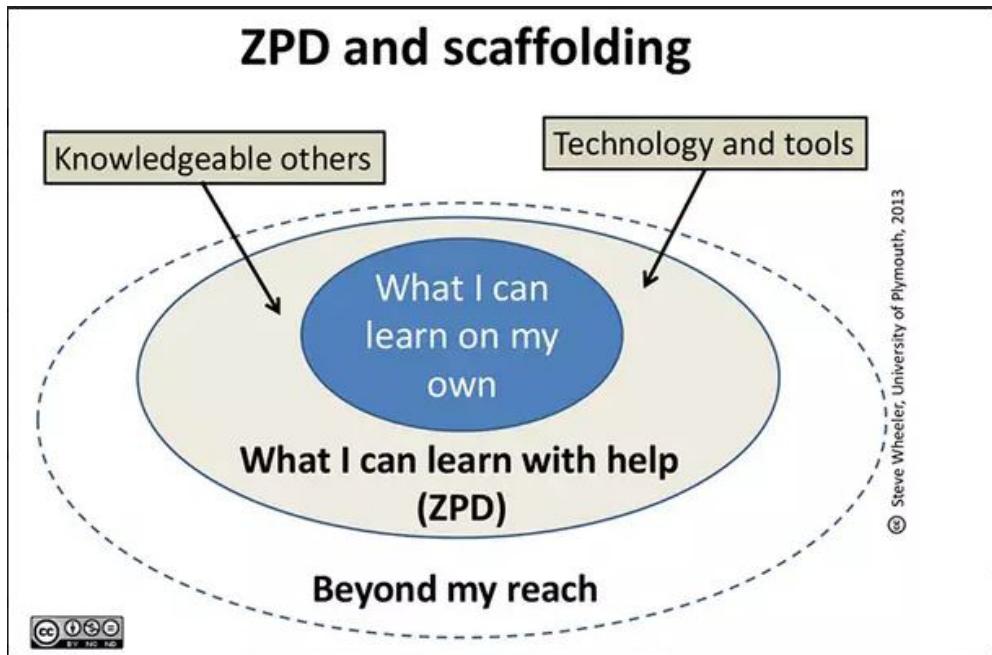
Examples: A young girl was given her first Jigsaw: alone she performs poorly in attempting to solve puzzle. The father then sits with her and describes or demonstrates some basic strategies such as finding all the corner/edge pieces and provides a couple of pieces for the child to put together herself and offers encouragement when she does so. As a child becomes more competent the father allows the child to work more independently.

According to Vygotsky, this type of social interaction involving co-operative or collaborative dialogue promotes cognitive development. For him, knowledge can best be advanced through interaction with others in cooperative activities (Woolfolk, 2013).

In order to understand Vygotsky's theory, one must understand the main principles of Vygotsky's work which are:

- **MKO (More Knowledgeable Others):** It refers to someone or instrument (technology) who/that has better understanding or higher ability level than the learner with respect to a particular task, process or concept. Although the implication is that the MKO is a teacher or older adult, this is not the case. Many times, a child's peers or an adult's children may be the individuals with more knowledgeable or experience. The key to MKO is that, they must have more knowledge about topic being learned than the learner does.

- **ZAD (Zone of Actual Development**): It refers to the tasks that a child can complete by himself. It is his ability that he already possesses to perform a certain task at a certain degree.

- **ZPD (Zone of Proximal Development):** It refers to skills (tasks) too difficult for a child to master on his/ her own but that can be done with guidance and encouragement from adults or more skilled children. This concept of ZPD is related to "difference/gap between what a child can achieve independently and what a child can achieve with guidance and encouragement from skilled pattern."As an example given above: a child could not solve the jig saw puzzle by himself and would have taken a long time to do so, but he was able to solve it following interaction with his father and has developed competence of this skill that will be applied to future jig saws. Vygotsky sees ZPD as an area where the most sensitive instruction or guidance should be given allowing the child to develop skills they will then use on their own development of higher mental function. He views interaction with peers as an effective way of developing skills and

strategies. He suggested that "teachers use cooperative learning exercises where less competent children develop with help from more skillful peers within the zone of proximal development.

- **Scaffolding:** Scaffolding instruction as a teaching strategy originates from Lev Vygotsky's theory. In scaffolding, a more knowledgeable other provides scaffold (supports to facilitate the learner's development). Those scaffolds facilitate students' ability to build on prior knowledge and internalize new information. The activities provided in scaffolding instruction are just beyond the level of what the learners can do alone. The more capable other provides a scaffold so that learner can accomplish the tasks she/ he could not complete.

Vygotsky also talked about "language" as a tool of communication where he believed that language develops from social interactions for communication purposes. Later, language ability becomes internalized as thought and inner speech. Thought is a result of language. Vygotsky stresses the importance of socialization in the development of thought and language. He believed that speech was originally social in nature and used as a communication tool (Woolfolk, 2013).

- **Educational implications of social constructivism theory**

When engaged in the process of teaching and learning, ducators should consider the following:

- **Use of zone of proximal development:** Teaching should begin toward the zone's upper limit, where the student is able to reach the goal only through close collaboration with the instructor.
- **Use scaffolding:** Took for opportunities to use scaffolding when students need help with self-initiated learning activities. Use it also to help students move to a higher level of skill and knowledge.
- **Use more-skilled peers:** As teachers, remember that it is not just adults that Vygotsky believed are important in helping students learn important skills. Students also benefit from the support and guidance of more skilled students.
- **Encourage collaborative learning** and recognize that learning involves a community of learners. Both students and adults engage in learning activities in a collaborative way.
- **Consider the cultural context of learning:** An important function of education is to guide children in learning the skills that are important in the culture in which they live.
- Encourage student's talks.
- Use dynamic assessment to measure learning potential (to see if a child moves from ZPD)

In social constructivism learning;

Teachers should**:**

- Encourage team working and collaboration;
- Promote discussion and debate;
- Set up study group for peer learning;
- In social constructivism, teachers (tutor) or peers play a vital role in learning;
- Teachers should be a facilitator (guider) by helping students to collaborate not to make competition.

9.2.6. Social learning theories (Bandura)

Social learning theory is also known as observational learning, modelling or imitation. It was developed by ALBERT BANDURA. It examines how people learn by observing models and imitating the behaviours of others. (Children learn through observing, modelling and imitating other's behaviour) it mainly helps in the acquisition of language and behaviour.

According to Bandura (1986), much of human learning is not shaped by its consequences; but is more efficiently learned directly from a mode. **For example**; if students see their friend rewarded for a good work done, they may work hard so that they are also rewarded.

a) Phases of observational learning.

- **Attention phase:** The first process in social learning is paying attention to the model. Unless learners pay attention to modelled events, they cannot learn much from them. This process enables the observer to determine which aspects of the modelled information are relevant or irrelevant. In the classroom situation, teacher as a model, gains students' attention by presenting clear information and motivating them.

- **Retention phase:** This involves symbolic coding, organization of what has been received, attention and rehearsal. In classroom, after gaining students' attention, a teacher can model the behaviour he/she wants students to imitate and then give them chance to practice. **Example:** A teacher might show how to derive a certain formula in mathematics and then students imitate him/her by trying to follow the way used and derive the formula and then retain the procedure used.

- **Reproduction:** After attending to and retaining modelled behaviour, the observer is ready to produce the behaviour. The reproduction process is influenced by the observer's capacity and whether the modelled behaviour is socially acceptable.

Motivation: Students will imitate a model because they believe that doing so will increase their chance to be reinforced. In classroom, the motivation process entails praise or grades given for matching the teacher's model.

b) Principles of social learning

- **Direct reinforcement**

It is provided by external environment **for example,** in classroom if a teacher shows how to calculate a number in mathematics and a student does it as required, the teacher may praise or reward the student; hence direct reinforcement.

- **Vicarious learning**

This refers to the learning from other's successes and failures. **Example 1:** In the classroom when some students are disruptive, a teacher may single out others who are well behaved and reinforce them. The misbehaving students may change their behaviour so as to be liked and reinforced too. **Example 2**: A boy observes his elder brother being rewarded for his good performance; he may also learn hard so as to be rewarded.

- **Modelling**

Although teachers have less influence on students' behaviour outside the school environment; within the classroom, they are the major source of modelled information in the following ways.

By observing teachers, students learn not only academic skills but also much important non-academic behaviours. Students may learn interpersonal interaction skills by observing how teachers interact with students. They also adopt teachers' attitudes towards a variety of issues, ranging from those related

to education and schooling to those extending beyond the classroom. They may even imitate mannerisms that their teachers exhibit, way of dressing, walking. A learner learns from imitating the behaviours of another person.

c) Implication of social learning in education

Since the knowledge of social learning is critical to the educational process, some applications of the principles have been suggested.

- The vicarious principle of learning should be applied when dealing with misbehaving learners. **For example,** when some students come late to school (classroom) and teacher refuses them to enter, others who have the same habit of coming late may refrain from it as a result of seeing their friends punished.

- Learning through modelling or by imitation as observing can bring new behaviour or change the frequency of previously learned behaviours. Therefore, as a model, a teacher should manifest exemplary behaviours. He/she should keep in mind that his/her behaviour, both intentional and unintentional can profoundly affect what students learn. Also, he/she can influence the attitudes, beliefs and behaviours of learners.

- A teacher should show interest and enthusiasms in the content he/she is teaching and interact with learners in an expressive manner. He/she should show enthusiasm in activities done in class. This may help learners to gain interest and show enthusiasm too, like their model.

- A teacher must firstly identify the specific social and effective students learning outcomes. He/she considers important fairness, thoughtfulness; cooperation and consideration as qualities most people agree are important.

Learning theories and evolution of teaching methods

Historically the concept of learning has evolved over time. Initially the learner was considered as a blank page on which you can write or an empty vase to be filled. The teacher was considered as a scientist, the sole owner of knowledge. With time and the evolution of science and technology, the conception of the role of the" learner" has changed and shifted from a passive role to a main role in the learning process. This evolution is due to the valuable work of educational psychologists who through their research in education field. The table below shows the evolution of teaching methods since 1904:

Approach Element	Between 1904 and 1913	Between 1913 and 1980	Since 1980
Pedagogical approach	**Transmissive teaching style** Giving knowledge from the person who has it to the one who does not have it	**Behaviorist teaching style** Sticking to exemplary behavior.	**Constructivist style** It is necessary to give a child tools that he/she may use to find/ discover himself to knowledge. **Socio-constructivist style** Children are well developed when they are together
The role of the Student	To listen attentively A student is practically passive during the teaching period	Solve tasks prepared by the teacher We propose much complex tasks to the student in instilling in the behavior we wish him to develop	Build his knowledge since he is involved in problematic situations
The role of the Teachers	To communicate / To transmit or to demonstrate knowledge	Prepare tasks that lead students towards the new knowledge. To institutionalise the knowledge	To propose problem situations
Methods	Lecturing methods It is a « frontal » pedagogy	Interrogative methods	Actives and participative methods

Error status	Errors must be avoided	Errors must be avoided because they leave behind frustrating.	Here the error is considered since it can serve during the knowledge acquisition process.
Knowledge acquisition process	Knowledge is transmitted by the teacher .	Knowledge is discovered by the student under tearcher's guidance	Knowledge is built by the student

Source: NCDC (2011):Roles, Duties and Responsibilities for Deputy Head Teacher in charge of studies, training module

The above table shows that the constructivist model of **Jean Piaget** who said that "All that you teach a child, you stop him from discovering it" and the social-constructivist model of Vygosky and Bruner who said that "If you do not put children together, they will not develop" recommend active methods that offer learners with opportunities to reconstruct their own knowledge based on the prior knowledge.

Application Activity 9.2.6

1) Discuss how principle of social learning can be applied in teaching and learning process.

2) Explain the process of observational learning theory?

End of unit Assessment

After learning this unit; explain how these theories of learning can be applied in teaching and learning processes in Rwandan classroom situation.

UNIT
10

Key unit Competence: Create a conducive and inclusive learning environment taking into consideration individual differences.

Introductory activity

As we can learn formally, non-formally as well as informally, then learning in all those forms can be influenced by different factors.

In your family, during your early age through childhood until now you have observed different people of different abilities. You have seen how people grow differently, you have seen how people perform differently, you have observed different people's attitudes, and specifically you have seen how academic performance differ among people in different schools. Then try to answer the following questions:

- How can you explain the above differences?
- If you are appointed 'Head teacher', explain how you will advise your teaching staff on factors to consider during teaching and learning process to help all learners to achieve their full potentials.

The factors that influence learning are varied and diversified. Some are related to learner (internal) others are external factors. In the text below, you will learn in detail the main factors that influence learning.

10.1. Factors related to the learner (internal factors)
10.1.1. Physiological factors

Activity 10.1.1

In your everyday life you have heard people talking about health, age, sex/gender and physical abilities. "Health, age, sex/gender have an impact on learning".

Read the following scenario and answer questions related to them.

Scenario 1: A student was given a homework and did not work on it. When reaching home, instead of letting her work on her homework, parents send her to find food at the market. Unfortunately, the money was stolen before the student reach the market. Back home the girl was crying saying that the money was stolen. Her parents who were poor could not find other money to go back to the market to buy other food, instead they insulted the girl and beat her for being unkind and careless. The next day when the girl reached the class, she was not talking, she was shy and couldn't participate as she used to do.

Questions

1. Explain the reasons for the girl's behaviour.

2. How the teacher can help the student?

3. What advice could you provide to the parents of this girl?

Scenario 2: A student of senior one called a teacher for support. The student told the teacher that there are problems at home which are going to stop her from coming again to school. The student was at the same time crying. This showed the teacher that the student is experiencing a lot of problems. The student continued to cry and the teacher insisted and asked her to be free and talk about the issues. Finally, the student said that there is a need to go to the hospital for test. The teacher asked the reasons why she wanted to go for test? The student answered that her sister got unplanned pregnancy and that she was afraid this could be the same to her.

Questions

1. From the passage above, explain how what is explained could hinder the studentlearning.2. Why do you believe that learners need advice about sexuality?

2. What are consequences associated with early sexual experience?

3. How will sex affect learning?

Physical/ biological factors

- **Health**

"Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity" (World Health Organization,1948). A physical problem can present ominous consequences on mental state of an individual.

In the domain of learning, one can notice for example that:
- Students who are sometimes sick are often absent and consequently cannot progress adequately. They miss important prerequisites for a smooth progression.
- Some malnutrition diseases such as kwashiorkor can be at origin of intellectual delay and it is obvious that a deficient child cannot progress mentally in his learning.
- Some congenital illnesses (the syphilis for example) are also at the origin of intellectual deficiencies.

- **Sex/ gender**

Gender refers to the roles and responsibilities of men and women that are created in our families, our societies and our cultures. The concept of gender also includes the expectations held about the characteristics, aptitudes and likely behaviours of both women and men (femininity and masculinity). Gender roles and expectations are learned. They can change over time and they vary within and between cultures. Systems of social differentiation such as political status, class, ethnicity, physical and mental disability, age and more, modify gender roles. The concept of gender is vital because, applied to social analysis, it reveals how women's subordination (or men's domination) is socially constructed. As such, the subordination can be changed or ended. It is not biologically predetermined nor is it fixed forever.

Sex describes the biological differences between men and women, which are universal and determined at birth. Sex depends on sex organs that one has.

The table below highlights the difference between gender and sex:

Sex	Gender
A biological aspect	A social construct
Sexual differences are inborn & universal	Gender roles vary / change according to culture, age & class.
Sex differences cannot change	Gender roles change with time, culture & technology.

Sex and gender can affect learning in different ways:

At family level, according to traditional gender roles, girls/women are responsible of caring children, preparing food, doing all kind of domestic chores, helping sick family members at the hospital and so on. This can cause absenteeism and lead to school dropout.

Physically, boys tend to be more active, stronger than girls, and by the same token more restless if they have to sit for long periods. They are also more likely than girls to rely on physical aggression if they are frustrated (Espelage & Swearer, 2004).

Performance of girls can be affected by their physiology. For example, when girls are in their period, some will get discomfort which in turn is affecting their concentration during class time or some will even not attend and this is not the case for male student.

If a female gets pregnant during school period, it becomes so hard for her to continue her studies as usual due to tremendous changes that take place during pregnancy which will not allow the woman to work in any condition. So, this make it clear that girls are affected differently from the boys.

Gender and sex differences have to do with physical behaviors, styles of social interaction, academic motivations, behaviours, and choices. They have a variety of sources primarily parents, peers, and the media. Teachers are certainly not the primary cause of gender role differences, but sometimes teachers influence them by their responses to and choices made on behalf of students.

During teaching and learning process the teacher needs to consider gender differences however, as a teacher you need to make teaching methods gender responsive to ensure that equal learning takes place. Those social roles and meaning given to males and females affect the ways learners learn and their achievement at all levels.

The teacher needs to consider the following during teaching and learning process to make his teaching gender responsive:
- **Addressing specific needs of learners:** look for such characteristics as shyness, arrogance, distraction, lack of confidence, slowness, giftedness, some come from the state of being male or female.
- **Watch out for gender specific needs of learners:** girls who are having problems because of menstrual cycle, boys who are embarrassed to speak out because their voices crack, girls who are afraid of talking because of their cultural background and girls or boys who may have been sexually

abused. As a teacher, ensure you handle such cases professionally.

- **Feedback:** classroom interaction is a two-way process involving the teacher and the learner. Classroom participation can be enhanced by ensuring that both girls and boys answer or ask questions. This is because of the fact that if it is not done well, one side will feel as if it is not part of the class.
- **Gender based distraction in classroom:** negative gender-based behavior can be distractive to the teaching and learning process. The examples can be; boys bullying girls, bigger learners bullying smaller ones, teasing, abusive language and gestures, touching, passing notes, etc. In such situation, the teacher may eliminate such kind of behavior.

- **Age**

The age is a very important factor of learning. The young individuals learn better and more easily than those who are old. In reference to developmental psychology, with emphasis on developmental stages, it is clear that learning is a lifelong process that begins early monthly before birth.

Conclusion

One learns better when he has a good health. Learning is more easily achieved for young learners. During the development, the individual is mature for such or such learning to very precise moment (sensitive period).

It has been proved that the age of 6/7 years is ideal for the beginning of primary school education. Teaching the child to read and to write a long time before school age is a bad help for him. This could create intellectual blockage. After this age, it is also not good because learning will be difficult (see sensitive period).

Application Activity 10.1.1

With clear examples, explain how physiological factors can influence the ways people learn.

10.1.2. Learning styles

Activity 10.1.2

Scenario:

It was the end of the first term, the teacher with the whole class were evaluating themselves. They wanted to check everyone's contribution during class time. Then, the teacher asked the question '**how do you learn**? Each student was supposed to answer the question. The following are their answers :

- I learn better when I read aloud to myself.
- I learn well when explaining something to others.
- I can remember names well.
- I enjoy music and memorize it easily.
- I enjoy acting and being on stage.
- When revising I read slowly.
- I cannot keep quiet for a long period.
- I am good in studying in groups.
- I prefer to hear information spoken.
- I can absorb a lecture with little effort.
- I may not need careful notes to learn.
- I often avoid eye contact in order to concentrate.
- I like background music when I study.
- I enjoy the lesson when we are using videos.
- I learn easily when the teacher is explaining.
- I enjoy working on practical work.

1. Why do you think these answers were different?

2. Relate these ways different students used to learn to human senses.

3. How a teacher will determine different leaning styles of different leaners?

4. How a teacher will help each of category in relation to those senses?

A) Learning styles

Learning styles are simply different approaches or ways of learning. Students learn in different ways, like seeing, hearing and experiencing things. Research has shown that students can perform better on test if they change study habits to fit their own personal learning styles.

In this respect, MELISA Kelly & GRACE Fleming distinguished three major types of learners:

- Visual learners who learn by sight
- Auditory learners who learn by hearing
- Tactile learners (kinesthetic) who learn by touch
- Multimodal learners learn by using different learning styles

This implies that there are four main learning styles such as:

- Visual learning style
- Auditory learning style
- Kinesthetic learning style
- Multimodal learning style

- **Visual learning style**

This is a type of learning style in which learners learn by using their sense of sight.

While most individuals without disabilities need to see the teacher's body language and facial expressions to fully understand the content of a lesson. They tend to prefer sitting at the front of the classroom to watch the lecture closely and to avoid visual obstructions (people's head).

They also learn best from visual display including diagrams, illustrated textbooks, overhead transparencies, videos, flipcharts and handouts.

Characteristic of visual learners:

- They are good at spelling but forget names.
- They need a quit study time.
- Think a while before understanding a speech or a lecture.
- They like colors.
- Understand or like charts.
- They are good with sign language.
- Prefer to see information such as pictures, diagrams, cartoons,

demonstrations.
- Easily distracted in lecture without visual aids.
- Benefit from using charts, maps, notes, and flash cards when studying.
- They are readers/observers.
- They Scan everything; want to see things, enjoy visual stimulation.
- They enjoy maps, pictures, diagrams, and color.
- They need to see the teacher's body language/facial expression to fully understand.
- They daydream; a word, sound or smell causes recall and mental wandering.
- They usually take detailed notes.
- They may think in pictures and learn best from visual displays.

- **Auditory learning style**

This is a type of learning style by which learners learn by using their sense of hearing.

The following are characteristics of auditory learners:

They learn best through verbal lectures, discussions, talking things through and listening to what others have to say. These learners:

- Often benefit from reading text aloud and using a tape recorder.
- Are not afraid to speak in class.
- May read aloud to themselves.
- They are good at explaining.
- Remember names.
- Enjoy music.
- Enjoy acting and being on stage.
- Read slowly.
- Cannot keep quiet for a long period.
- Are good in studying in groups.
- Prefer to hear information spoken.
- Can absorb a lecture with little effort.
- May not need careful notes to learn.
- Often avoid eye contact in order to concentrate.
- Like background music when they study.
- Think aloud and talk to themselves

- Participate in class discussions/debates
- Make speeches and presentations
- Read text out loud—especially when proofreading or when tired
- Create musical jingles and mnemonics to aid memorization
- Use a tape recorder during lectures instead of taking notes
- Discuss your ideas verbally with a friend or small group
- Use verbal analogies, and storytelling to demonstrate your point
- When doing math computations by hand, use graph paper to help you keep your columns aligned
- Recite information over and over to better memorize material
- May want to sit near the side or back of the classroom where there is less visual stimulation
- Dictate to someone while they write down their thoughts

- **Kinesthetic learning style**

This is a type of learning style by which learners learn by using their sense of touch. Tactile/ kinesthetic learners learn best through a hands-on approach, actively exploring the physical world around them. They may find it hard to sit still for long periods and may become distracted by their need for activity and exploration. For this reason, tactile learners may become bored more quickly than other students while listening to a class lecture. People with tactile learning style have active hands.

The following are characteristics of kinesthetic learners:

- Tactile or Kinesthetic Learners
- Prefer touch as their primary mode for taking in information
- In traditional lecture situations, they should write out important facts
- Create study sheets connected to vivid examples
- Role-playing can help them learn and remember important ideas
- May benefit by using manipulates
- Is good at sport
- Can't sit still for a long period
- Doesn't have great handwriting
- Likes science labs
- Studies with loud music on
- Likes adventure books, movies

- Likes role-playing
- Takes break when studying

- **Multimodal learning style**

Most people fit into this category. These are people with a mixture of learning preferences, such as two, three or even four strong preferences.

This means that when you are in class, you can use more easily learning style to match the mode being used by your teacher. It is not a surprise to use more than one strategy for learning and communicating, it is rather an advantage.

B) How to determine one's learning style
- Observing the learners in action: observe how he/she expresses him/herself.
- Consider the learner's interest: a learner's primary learning style is also normally reflected in his or her interests.
- See how the learner solves problems: learners tend to utilize the attribute that correlate to their learning styles.
- Talk to people and teachers who interact with the child regularly.
- Take learning style quizzes.

C) How to effectively use learning styles in class

- Match your learners' learning style with your teaching style.
- Find programs that caters to your students' strengths.
- Teach your learners to study based on his or her learning style.
- Do not completely limit your learners to a single learning style.

In the best of all possible worlds, you would incorporate all three learning styles into each of your lessons. However, this will not always be possible in the real world of teaching.

If your class warrants tactile learning style, you may include simulation, role play, debates or the use of manipulative. In other words, you need to use teaching and learning aids.

Application Activity 10.1.2

Explain how people learn and explain how effective teacher will react to those different learning styles.

10.1.3. Psychological factors that influence learning

10.1.3.1 Motivation

- **Definition**

Psychologists define motivation as an internal process that activates, guides and maintains behavior overtime. A motive is any condition of the organism that affects its readiness to start or continue in a sequence of behavior.
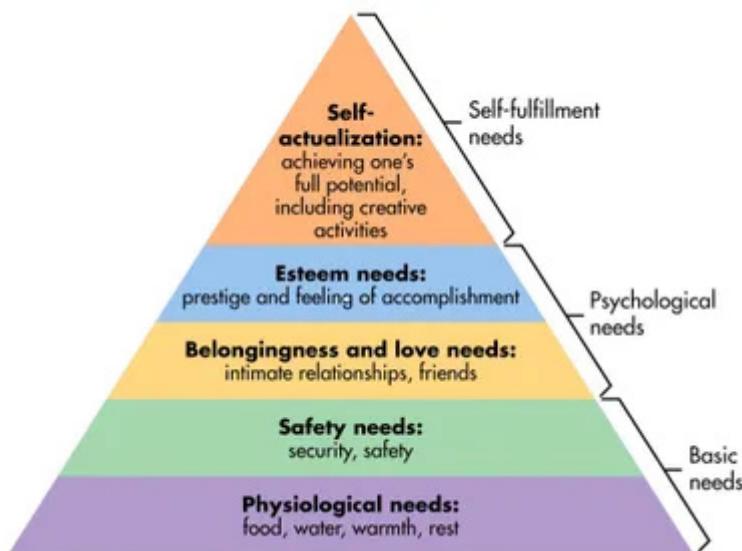
- **Maslow and motivation**

Introduction

Maslow has explained motivation in ways that many teachers and students have found realistic and appealing. He suggested that a hierarchy of five basic classes of needs or motives influence human behavior.

According to Maslow, needs at the lowest level of hierarchy must be at least partially satisfied before people can be motivated by higher level goals.

Maslow's hierarchy of needs

Source: https://www.simplypsychology.org/maslow.html

Maslow identified five very potent needs in the human being. Rated in their order of urgency, they are:

- Physiological needs;
- Safety needs;
- Love and belongingness needs;
- Self-esteem needs
- Self-actualization needs.

a) Physiological needs

These are the basis of motivation and unless they are satisfied everything recedes. Maslow emphatically pointed out that physiological needs are

biological needs and that when they are in force; all other needs become relatively unimportant. Such needs include the need for food, water, oxygen, pain avoidance, sex and medication. In general physiological needs embrace all needs which are directly necessary for one's survival.

For instance, in a hungry person, all capacities are directed towards hunger satisfaction.

b) Safety needs

Once the physiological needs are met, safety needs become the next important requirement. It is common knowledge that human being and other animals perpetually seek self –preservation and security. This becomes another ***life-and-death struggle*** that totally dominates the person.

c) Love and belongingness needs

After gratifying physiological and safety needs, the next in importance is love and affection needs. This need is manifested in our desire to make friends and to maintain cordial relationship with people. When this need is thwarted, a diverse psychological reaction (maladjustment) may result.

While love is not the same as sex, it should be noted that in many instances our sexual behavior and response is defined by our need for love, affection and intimacy.

d) Self-Esteem Needs

Humans normally experience a strong desire for reputation and prestige, for recognition and attention, for feeling and being important, useful and appreciated by the society. If this need is satisfied the effect is feeling of self-confidence. And high self esteem. Failure to satisfy this need brings about feeling of inferiority, weakness and helplessness.

e) Self-actualization needs (creativity, justice)

This is the need for maximizing one's potential becoming all that one is capable of. Individuals who have successfully developed and applied their talents and potentials effectively in any field of human endeavor are said to have actualized themselves. In other words the concept of self-actualization according to Maslow implies doing what one is fitted for, however this need is rarely satisfied.

Implication of Maslow's hierarchy of needs for teachers

- Before a student's cognitive needs can be met, they must first fulfil their basic physiological needs. For example, a tired and hungry student will find it difficult to focus on learning. Students need to feel emotionally and physically safe and accepted within the classroom to progress and reach their full potential.
- The teacher should channel student's libidinal (sexual) energy through co-curricular activities.
- Teachers should avoid behavior that make students feel insecure or fearful and fail to participate in school or classroom activities.
- Teachers should try to put student at ease and make them feel accepted and respected as individuals,
- Teachers should provide opportunity for students to satisfy esteem needs. Every student should at least experience some success, for making him/her confident, recognized and hence respected.
- As for as self-actualization is concerned, teachers should guide, encourage and reward so that the students begin to recognize their potential.

- **Importance of motivation**
- Motivation arouses and sustains interest in learning.
- Motivation initiates and energies activities in learning.
- It leads to self-actualization in learning.
- It releases tension and helps in satisfying the needs of the learner.
- **Types of motivation**

There are basically two types of motivation: intrinsic and extrinsic motivation.

- **Intrinsic motivation**

Definition: Intrinsic motivation refers to the desire to seek, of one's own will, tasks and challenges, to expand and train one's abilities, to explore and learn, without the needs of external reward. This type of motivation is mainly due to a person's own initiative to achieve the intended goal or objective. It is an internal motive which is not associated with any kind of reinforcement or reward.

Examples of intrinsic motivation

- Doing sports because you enjoy feeling alive
- Staying longer at work because you believe in your work
- Investing money because you want to become financially independent
- Traveling because you want to explore different cultures

- Learning about personal development because you want to become the best version of yourself
- Going to the playground with your children because it makes you happy
- Drinking smoothies because you want to live healthy
- Learning a new language because you want to connect to people from other nations
- Studying for school because you are curious about the topics
- Cooking because you like trying new recipes
- Arguing because you find it intellectually stimulating
- Showing love to your partner because you like to see him or her happy
- Reading a book because you enjoy the storytelling
- Writing because you enjoy the process of creating things
- Working in a low paying field because it's your passion
- Working out because you like being active and fit

Some ways of enhancing intrinsic motivation in students:
- Teachers should challenge students' skills with activities of intermediate difficulty. They should ensure that students do not become bored with easy tasks or reluctant on tasks perceived as difficult.
- Teachers should present ideas slightly different from learner's existing knowledge and beliefs.
- Teachers should allow students choices in activities and their contribution in formulating rules and procedures.
- Students should be engaged in activities, games and simulations. They should ensure that the motivational embellishments are relevant and not too distracting.
- Teachers should help students set their own goals. Normally people work harder for goals that they themselves set than for goals set for them by others.
  - **Extrinsic motivation**

Definition: Extrinsic motivation refers to the behavior of individuals to perform tasks and learn new skills because of external rewards or avoidance of punishment. This is a type of motivation, which is mainly activated by external factors or rewards and privileges, for example marks, prizes, grades, praises, etc.

Examples of extrinsic motivation

- Going to work because you must earn money
- Studying because you want to get a good grade
- Helping others because you hope for praise from friends or family
- Going to new places because you want to post it on Instagram
- Paying taxes because you want to avoid a fine
- Pursuing a degree you are not interested in because you want to make your parents proud
- Buying a new car just because it looks nicer than the old one
- Going on a business trip because your boss tells you
- Staying at home because your doctor told you to relax
- Competing in a contest because you want to get a scholarship
- Exercising because you want to lose weight
- Working extra hard because you want to become the employee of the month
- Learning to play the piano because you want to impress with your skills
- Completing tasks because you want to look good in public
- Buying stuff on sales because they are discounted
- Posting on LinkedIn because you want to get recognized by other professionals
- Participating in a survey because you want the incentive
- Reading a book because you have to prepare for a test
- Taking out your partner for dinner because he or she does not want to stay at home
- Doing tasks because you want to avoid judgment
- Participating in a sport because you want to win awards

Some other ways of increasing extrinsic motivation to learn:

- Teachers should provide clear feedback. They must provide information on the result of students' efforts or performance. This motivates students to put more effort in learning.
- Expressing clear expectations: Teachers should let students know exactly what they are supposed to do, how they will be evaluated and what the consequence of success will be.
- Teachers should reward learners for any fair attempt they make on tasks in classroom lessons.

- **Motivation in the classroom**
- Teacher should reinforce behaviors, which facilitates achievement of course objectives.
- For example: attending to instruction, completing assignment, participating in classroom activities, etc.
- Teacher should not only consider success as getting above average but also measured in terms of improvement over previous performance. This is because the past experience tends to influence students' motivation.
- Teacher should avoid making comments that demotivate learners. For instance, comments like you are stupid; you can't do anything, etc.
- Cooperative planning. The teacher should involve students in planning.

Application Activity 10.1.3.1

With reference to types of motivation explain what a teacher will do to make teaching and learning effective.

10.1.3.2 Memory and forgetting

Activity 10.1.3.2

In everyday life we are acquiring information from different sources, the information is saved in our brain for later use. This is clear in academic environment when students are asked to answer questions and eat for different tests/exams.
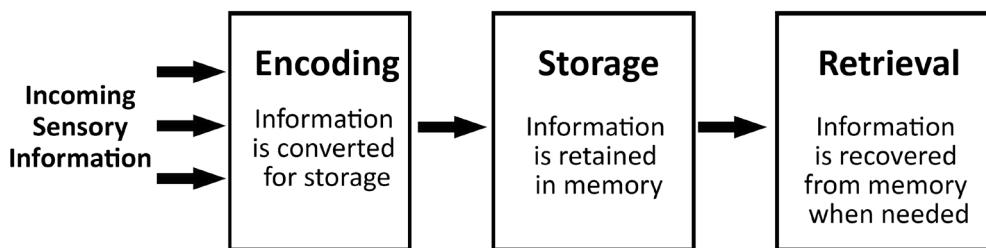
1. What do you understand by the terms human "memory" and "forgetting"?

2. Why do some people remember easily during examination period while others miss what to write

3. What strategies that a teacher can use to help leaners remember information well?

- **Definition**

Memory is an organism's ability to store, retain, and recall **information** and experiences. It is our ability to **encode**, **store**, **retain** and subsequently **recall** information and past experiences in the **human brain**.

- **Memory processes**

There are three memory processes involved in remembering information: *encoding, storage*, and *retrieval*.

Encoding	Storage	Retrieval
Information is converted for storage	Information is retained in memory	Information is recovered from memory when needed

Incoming Sensory Information →

If any one of these processes fails, memory will fail

Source: https://www.simplypsychology.org/memory.html

i) Encoding

Encoding is the process by which sensory information gets into memory. In everyday language, encoding has much in common with attention and learning. When a student is listening to a teacher, watching a movie, listening to music or talking with a friend, he or she is encoding information into memory.

Three concepts are related to encoding:
- **Attention:** this involves concentrating and focusing mental resources.
- **Rehearsal**: Rehearsal is the conscious repetition of information over time to increase the length of time information stays in memory. Rehearsal works best when individuals need to encode and remember a list of items for a brief period.
- **Deep processing**: Following the discovery that rehearsal is not an efficient way to   encode information for long-term memory

ii) Storage

Storage is the retention of information over time. After people encode information, they need to retain or store the information. Among the most prominent aspects of memory storage are the **three frames or types of memory**.: sensory memory, working memory (or short-term), and long-term memory:

Sensory memory

It holds information from the world in its original sensory form for only an instant, not much longer than the brief time. It actually lasts less than one

second. A student is exposed to the visual, auditory, and other sensations. Because sensory information lasts for only a transitory moment, an important task for the student is to attend to the sensory information that is important for learning.
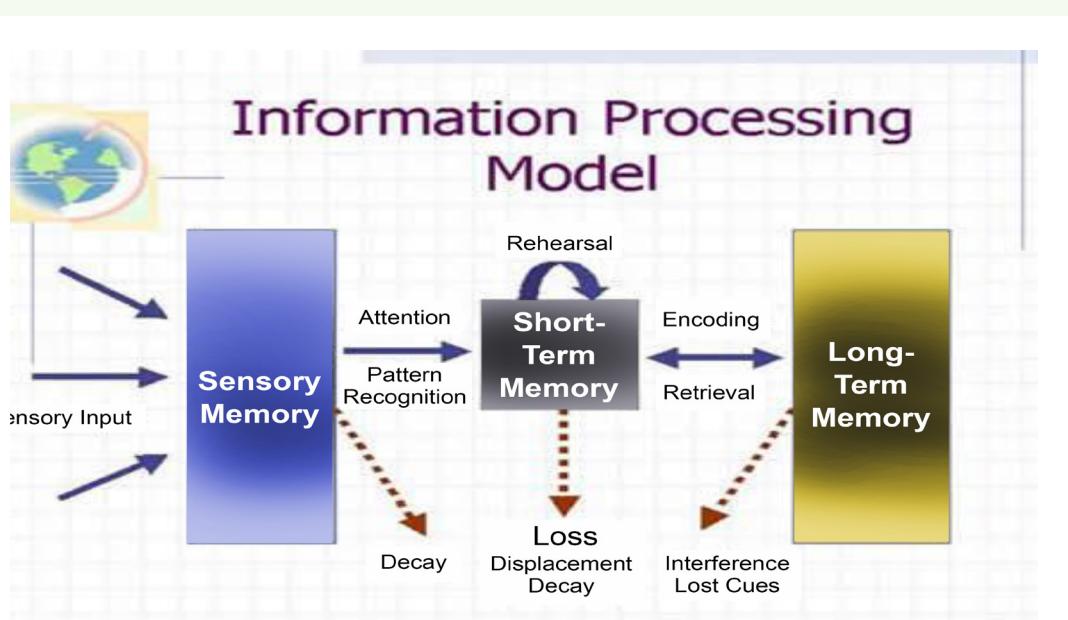
Short-term memory

It is a limited capacity memory system in which information is retained for as long as thirty seconds (the duration of short-term memory seems to be between 15 and 30 seconds), unless the information is rehearsed or otherwise processed further, in which case it can be retained longer. Compared to sensory-memory, short-term memory is limited in capacity but relatively longer in duration. Short-term memory is also called **working memory**; it contains what you are consciously aware of at any given moment.

Short term memory has three key aspects:

- limited capacity (only about 7 items can be stored at a time)
- limited duration (storage is very fragile, and information can be lost with distraction or passage of time)
- Encoding (primarily acoustic, even translating visual information into sounds).

Long-term memory

It is a type of memory that holds enormous amounts of information for a long period of time in a relatively permanent fashion. In this model, sensory input goes into sensory memory. Through the process of attention, information moves into short-term memory, where it remains for 30 seconds or less, unless it is rehearsed. Then, the information goes to long-term memory storage; from here, it can be retrieved for some purpose later.

iii) Retrieval and forgetting

Retrieval is taking information out of storage. After students have encoded information and then represented it in memory, they might be able to retrieve some of it but might also forget some of it.

Retrieval

Retrieval: retrieve means to find something and bring it back. When we retrieve something from our mental "*data bank*", we search our store of memory to find relevant information. Just as with encoding, this search can be automatic, or it can require effort.

Forgetting

Forget means being unable to remember. Forget means being unable to remember information or past events. Forgetting or disremembering is the apparent loss or modification of information already encoded and stored in an individual›s long-term memory. It is a spontaneous or gradual process in which old memories are unable to be recalled from memory storage.

Why do people forget?

The following are some reasons why people forget:

- **Cue-dependent forgetting**: fail to find an adequate cue to activate the relevant portion of the knowledge stored in semantic memory. The notion of cue-dependent forgetting can explain why a student might fail to retrieve a needed fact for an exam or even when he is sure he "knows" the information.
- **The interference**: information stored under similar categories tend to interfere with each other. There are two types of interference:
- **Proactive interference:** it happens when what we learn today interfere with what we will learn later. Past memories inhibit retention of new memories.
- **Retroactive interference:** new learned information impedes the recall of information you learned earlier.
- **The decay theory**: it is the gradually disintegration of learnt information over time when it is not used. Thus, decay theory suggests that the passage of time is responsible for forgetting.
- **Motivation theory/ repression:** unconsciously forgetting painful events because they are threatening or disturbing.
- **Physical damage:** a severe physical shock such as drug overdose or damage in the head can cause forgetting.
- **Distorting of memory:** people's memory change and distort reality.
- **Aging or disease: in case of Amnesia:** it is the loss of memory caused by brain damage, disease, psychological trauma or use of drugs. There are two types of amnesia: **Retrograde amnesia:** inability to retrieve information that was acquired before the date of accident. **Antero-grade amnesia:** inability to transfer new information into long term store.

Memory and forgetting will affect learning a lot because, whatever we learn and wherever we are, need to be used in our everyday life. Performance in classroom will depend on the memory capacity of any leaner.

Memory capacity is dependent on the brain development and other factors including the ways information is processed. This means that forgetting or loss of information can happen due to different reasons as discussed above. To this end learning process is negatively affected.

Teaching strategies for helping students improve their memory
- Motivate children to remember material by understanding rather than rotely memorizing it.
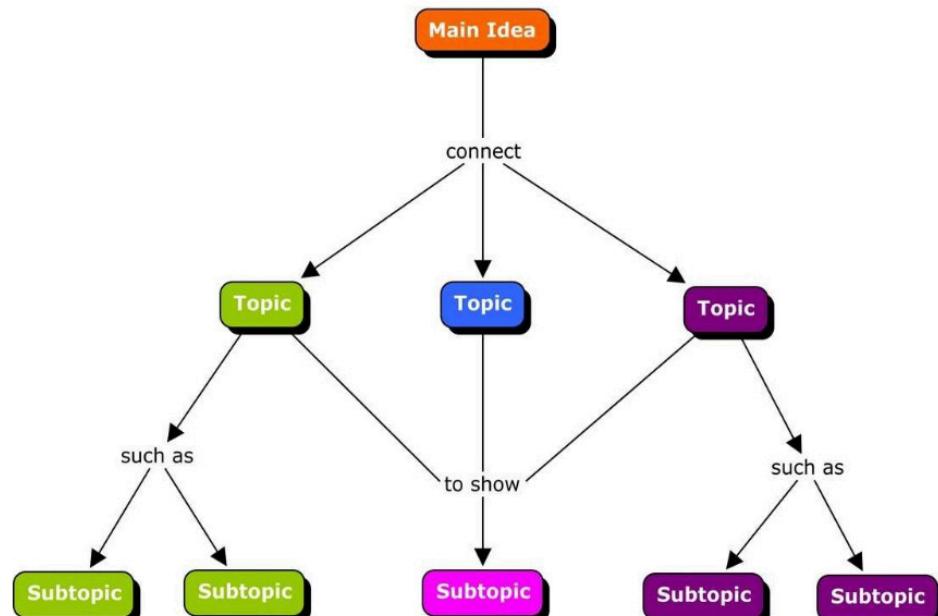
- Assist students in organizing the content they put into their memory.
- Teach mnemonic strategies: Mnemonic are memory aids for remembering information. Examples of mnemonic rhymes: using songs to remember the 12 months of a year and the alphabet. In Kinyarwanda, for remembering the 16 nouns classes, the sentence usually used is: "muba mu mirima ki binini ruka tubukuha".
- Encourage children to spread their study time and consolidate each learning episode, rather than using a long period.
- Encourage learners to ask themselves questions on what they are learning.
- Develop learners' skills to make good notes through:
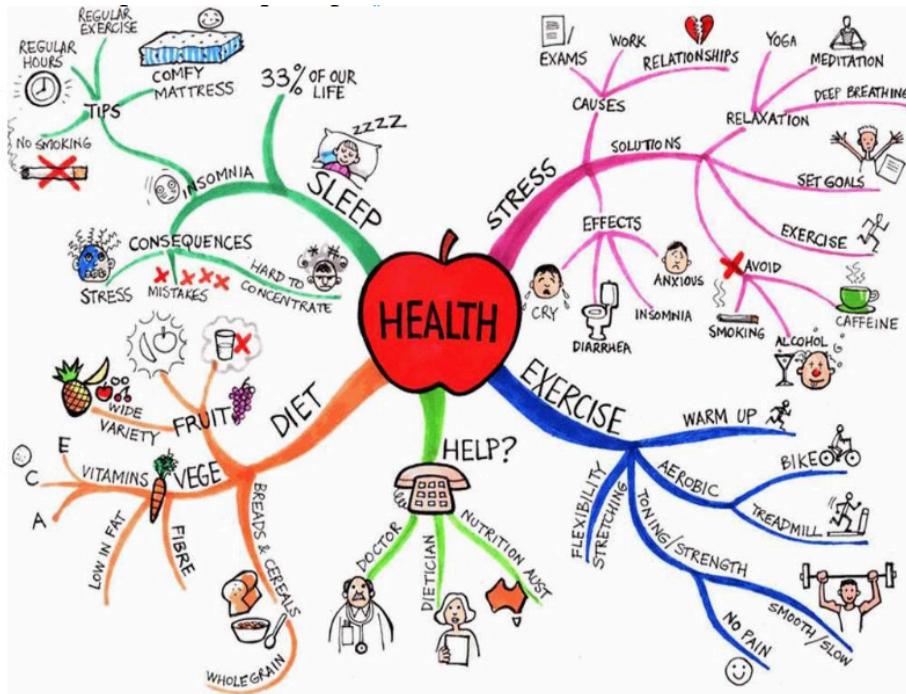
Summarizing: writing down main ideas step by step, organizing notes in your own way of understanding.

Outlining: putting ideas in a meaningful hierarchical order.

Concept map: is useful in explaining the general principles formed out of many related ideas and also the mutual relationships existing between the various general principles themselves. It is made as follow:

Example of concept maps:

Source: https://learningfundamentals.com.au/resources/

The concept map help in the following:
- To understand the content and make its summary.
- The relationship between the various ideas put forth in a lesson.
- Lead to the general principles.
- How the different general principles are themselves related •
- To prepare a classified summary of the ideas learnt in a lesson.
- Hierarchical way
- Cross linkage
- Helps the teacher to prepare the lesson for the class.
- Given as a follow up activity to pupils
- Home Assignment
- Promotes Analytical thinking in students.
- Learning become meaningful and comprehensive.

- **Educational implication of memory**

Referring to the knowledge about the memory and forgetting discussed above we can conclude that its function will negatively or positively affect learning.

The following are educational implications of memory:

- Awareness of the different memory levels of learners depending on the age level
- Knowing and understanding the student and helping him/her to overcome the traumatic experiences and unwanted feelings
- Use the memory enhancing techniques and adjustment of curriculum
- Creation of conducive environment for learning
- Methodology of teaching should incorporate the theories of memory and forgetting.
- Teachers should organize the subject content in the way that help their learners to understand and make it easy to memorize
- Use conceptual framework or concept map when possible
- Motivate learners and arouse their interest by telling them the importance of learning a given subject material.
- Connect the content to the real-life situation

Application Activity 10.1.3.2

Dissuss different ways teachers can use to enhance learner's memory

10.1.3.3 Intelligence

Activity 10.1.3.3

What do you understand by intelligence?

How intellectual capacity of someone can affect his/her learning**?**

- **Definition**

An intelligent person is able to learn, adapt to new situations, think, rationally and abstractly. Therefore, intelligence is defined as the capacity to understand the world, think rationally, and use resources effectively when faced with challenges or new situations.

According to David Wechsler (1944) "**Intelligence** is the aggregate or global capacity of the individual to act purposefully, to think rationally and to deal effectively with his environment". Gardner Howard (1983) defined intelligence as "the ability to solve problems, or to create products, that are valued within one or more cultural settings.

The only operational definition of intelligence that most psychologists have agreed on to date can be stated as follows: Intelligence is "*what intelligence tests measure*".

- **Determinants of intelligence**

  Heredity

Evidence from twin and adoption studies and selective breeding studies of animals, provide strong indications of the role of heredity in determining intelligence. There is clear evidence that, within the psychometric approach, intelligence is a lot more influenced by genetic inheritance than by the society's cultural inheritance. Genetic studies upon human behaviour have shown that intelligence development is determined by the variations in hereditary inheritance to an extent of 40%-80%. Thus, monozygotic twins who were adopted at birth and raised in different social environments obtain an IQ result in the intelligence test similar to the one obtained by dizygotic twins who grew up together.

On the other hand, studies upon adopted children have shown that, in the majority of cases, the IQ of the biological parent is a better predictor for the IQ of the child than the IQ of the foster parent. Therefore, it seems that in most cases, the weight of the family, school and social environment has a reduced influence upon changing children's IQ.

  Environment

It is simply not possible in the light of current knowledge, to determine precisely what percentage of IQ is attributable to genes and what percentage is the product of environment. A survey of several hundred of professionals with expertise in the field of intelligence revealed that the experts believe the hereditary of intelligence is 75% and 25% for environment. Human intelligence is influenced by various variables (age, occupation, experience, culture, profession) and is of different types. Being thus circumscribed, intelligence has the merit of determining various levels of performance and success in life. On the basis of intercultural and statistical comparisons there have been identified data according to which certain social activities which make the best use of certain intellectual skills can influence abstract thinking. The results of certain applicative studies show that improved and varied training—educational programs influence the development of intellectual skills, the abstract capacity of approaching and solving socio-cultural problems (Dumitriu (2010).

- **Measuring intelligence**

Over a period of years, procedures of measuring intelligence have evolved considerably, so that today there are a number of highly regarded devices for measuring intelligence.

BINET and intelligence testing

The modern intelligence testing movement was launched by Alfred Binet and his associates, who created a test to measure French school children's intelligence skills. Binet and his associates reasoned that virtually, all children follow essentially the same course of intellectual development but that some progress more rapidly than others.

Thus, children of subnormal intelligence were presumed to be "retarded" in their development. Taking this reasoning further, Binet theorized that a child of low intelligence should perform on tests of intellect like a normal child of younger age —and conversely, that a precocious child should perform like an older child of average intelligence.

Binet invented the term "*mental level*" to express a child's composite test score. This term later referred to as "**Mental Age**", corresponds to the **Chronological Age** of children –who, on the average, receive a similar test score. Thus, a 6-year old who scored as well as an average 8-year old would be said to have a mental age of 8.

Guided by this theoretical perspective, Binet and his associates developed a series of subtests covering a range of reasoning and problem-solving abilities. The end result was a fairly elaborate test that first appeared in 1905. (This is called Simon-Binet Test).

Instead of giving a person's performance on the Stanford-Binet as a mental age, Terman converted performance into a single score, which he called Intelligence Quotient or IQ. A quotient is the number that results from dividing one number by another.

The idea of an intelligence quotient was first suggested by a German psychologist, William Stern in 1912. To compute **IQ**, Stern divided **Mental Age** by **actual Chronological Age** of the person taking the test and then multiplied by 100 to get rid of decimal point.

$$IQ = \frac{MA}{CA} \times 100$$

For example, if a 6 years old child scored a mental age of 9, she would be assigned an IQ of 150

$$IQ = \frac{9}{6} \times 100 = 150$$

$$IQ = 150$$

Mental age must be calculated in months. According to Terman-Binet, there are 6 questions for each year, and each question corresponds with 2 months (12 months: 6=2).

This is an example of how to calculate mental age: an eight-year-old child has been tested in on Terman-Binet test. He succeeded all questions for seven years, two questions for 8 years and one question for nine years old.

You can find his/her mental as follow:

- First of all, he/she will be given 7 years because he/she succeeded all questions for 7 years old.
- Secondary, 4 months for 2 questions succeeded for 8 years.
- Lastly, 2 months for one question on 9 years.
- The mental age of that student is seven years + 4 months + 2 months = 7 and 6 months`

Conclusion: She/ he is 6 months late compared with his chronological age.

- **Factors that affect I.Q scores**
  - **Developmental factors**: I.Q scores tend to be more stable as children get older. Developmental problems that affect physical health and well-being may sometimes result in retardation or in deficits in brain processes. Such conditions will also have effects on children's ability to perform on certain tasks of intelligence tests.
  - **Emotional factors**: under this we include psychological stress, adjustment problems and motivation. Children who undergo a great deal of stress tend to do poorly in school. Children who have experienced large numbers of stressors showed a decline in overall I.Q. Also, too much anxiety may cause problems, covering the child's ability to attend or concentrate and lowering his or her I.Q.
  - **Family and cultural factors**: the family affects the child's motivation for school work. If the parents, for example, are indifferent about their

child's grades ignoring school reports, the child will sense that to them, school is not very important. In that case, a child may not try very hard to do well in school. Some factors that researchers think affect intelligence test scores include family size and structure and the values that the parents impart to their children. Also, family socio-economic status (SES), as measured by family income, parents' education, and the mother's working status all were linked to lowered test performance on selected Wechsler subtests. Cultural factors affect test performance in that early economic and socio-cultural deprivation experienced by disadvantaged minorities or majorities resulted in initial educational and intellectual deficits. As a result, young people from poor or disadvantaged families do poorly when they are given standardized tests.

- **Levels of IQ values**

Lewis Terman (1916) developed the original notion of IQ and proposed this scale for classifying IQ scores:

Over 140 - Genius or near genius

120 - 140 - Very superior intelligent

110 - 119 - Superior intelligence

90 - 109 - Normal or average intelligence

80 - 89 - Dullness

70 - 79 - Borderline deficiency

Under 70 – Below average

50-70 - Mild intellectual disability

35-50 - Moderate intellectual disability

20-35 - Severe intellectual disability

IQ < 20 - Profound intellectual disability

The following graph shows the IQ scores distribution in the general population in terms of intelligence values.
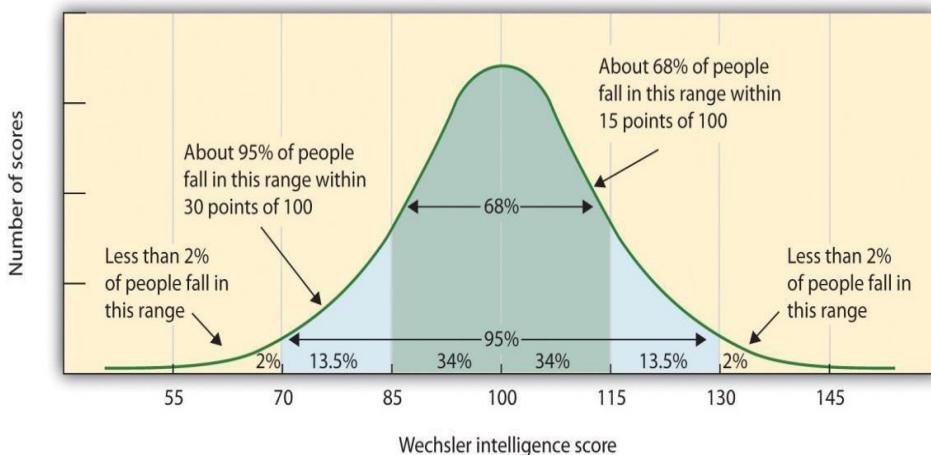
Figure: Distribution of IQ scores in the general population

- **Types of intelligence**

Howard Gardner's (1983) theory

The **theory of multiple intelligences** was developed in 1983 by Dr. Howard Gardner, professor of education at Harvard University. He proposes eight different intelligences to account for a broader range of human potential in children and adults. The table below shows different types of intelligence and related examples of tasks and activities :

Types of Intelligence	Description	Examples of tasks and activities
1. Naturalist Intelligence ("Nature Smart")	Designates the human ability to discriminate among living things (plants, animals) as well as sensitivity to other features of the natural world (clouds, rock configurations)	• Distinguish a good action from a bad one • Adopt good eating habit
2. Musical Intelligence ("Musical Smart")	Being musically intelligent means that you are able to distinguish the sounds around you and that one you have. The ability to make your own melody (music) and musically intelligent person is able to recognize, differentiate, transform, and express all kinds of musical forms.	• coach someone to play a musical instrument • identify music for malls and retail stores • lead a choir • perform a musical piece • review a musical play

3. Logical-Mathematical Intelligence (Number/ Reasoning Smart)	Logical-mathematical intelligence is the capacity to use numbers effectively and reason well. Someone who has this kind of intelligence is able to see cause and effect really well; also, they are able to identify a problem and solve it right there on the spot.	• analyze how a computer works • assess the value of a business or a proposition • perform a mental mathematical calculation • create a process to measure something
4. Interpersonal Intelligence (People Smart")	Interpersonal intelligence is the ability to understand and interact effectively with others.	• affect the feelings of others in a planned way • coach or council another person • demonstrate feelings through body language • interpret moods from facial expressions • mentor a new faculty member
5. Bodily-Kinesthetic Intelligence ("Body Smart")	Bodily kinesthetic intelligence is the capacity to manipulate objects and use a variety of physical skills. It is expertise in using one's whole body to express ideas and feelings. Examples: acting, dancing, sports, and using body language.	• arrange workplace furniture • demonstrate a sports technique • design a window display • put together a piece of modular furniture • ride a horse • stack books on a shelf
6. Linguistic Intelligence (Word Smart)	Linguistic Intelligence is the capacity to use language, your native language, and perhaps other languages, to express what's in your mind and to understand other people.	• edit a peer's paper • give an oral presentation • list the strengths and weaknesses of a product • write directions to accompany a map

7. Intra-personal Intelligence (Self Smart")	It is **self-knowledge and the ability to act adaptively on the basis of that knowledge.** This intelligence includes having an accurate picture of oneself (one's strengths and weaknesses); awareness of intentions, motivations, temperaments, and desires; and the capacity for **self-discipline, self-understanding, and self-esteem.**	• consider and decide one's own aims and personal changes required to achieve them (not necessarily reveal this to others) • consider and decide one's own position in relation to the Emotional Intelligence Model
8. Spatial Intelligence ("Picture Smart")	Spatial intelligence is the brain's ability to perceive and interpret visual stimuli. In other words, it is how our minds process what we see. Although not very recognized, spatial intelligence is very important in our lives. Sailors, pilots, sculptors, painters, and architects all exhibit spatial intelligence.	• compose a photograph • create an organizational logo • design a building • design a historic costume • design a landscape • interpret a painting • organize a storage room • pack an automobile trunk • paint a landscape
9. Existential intelligence	Sensitivity and capacity to tackle deep questions about human existence such as: What is the meaning of life? Why do we die? How did we get here?	

Source: *Adapted from: Gardner, H. (1999). Intelligence reframed: Multiple intelligences for the 21st century. **New York, NY: Basic Books.***

Individual intellectual ability is linked to his or her learning capacity. Some people are good at mathematics and sciences, others are good at languages and many other subjects. In reference to different levels of IQ and factors affecting it such as Developmental factors, Emotional factors, Family and cultural factors, it is clear that people will learn differently.

- **Educational implication**
  - In reference with levels of IQ a teacher in the classroom should consider the learners intellectual abilities and provide guidance and counselling accordingly.
  - Parental involvement should be encouraged.
  - Children should be protected from social problems that bring stress to children because this can lower their IQ.

1. Did your parents try to improve your intelligence? Do you think their efforts were successful?

2. Give some examples of how emotional intelligence, or the lack of it, influences your everyday life and the lives of other people you know.

3. Do you think that we should give intelligence tests to Rwandan students? Why or why not?

4. Give your ideas about the practice of providing accelerated classes to children listed as gifted in high school. What are the potential positive and negative outcomes of doing so?

5. Explain what a teacher needs to do during teaching and learning process in consideration with intellectual abilities of different learners.

6. Using examples from our society, explain how the environment determine and influence intelligence.

10.1.3.4 Sensation and perception

Activity 10.1.3.4

To react to any stimulation around, a person needs to get the meaning through the process of interpretation of those sensory stimulation.

1. What do you think is that process?

2. What does a teacher need to do to enhance that process which is necessary for leaners to understand different subject matters?

In the following paragraphs we are concerned with the nature of information obtained through the senses (Sensation) and the way in which we interpret such information (perception). Sensation and perception are two cognitive processes that operate so closely. Sensation and perception are fundamental topics.

The perception of depth depends on the brain's use of a number of clues. Because our behavior is so much a reflection of how we react to and interpret stimuli from the world around us.

a) Sensation

It is the process by which an organism's sense organs respond to a stimulus. It is the process whereby stimulation of receptor cells (in the eyes, ears, nose, mouth, and surface of the skin) sends nerve impulses to the brain. After reaching the brain they are registered as a touch, a sound, a taste, and a splash of color. Hence, sensation can be thought as an organism's first encounter with sensory stimuli. The sensory receptors are located in sensory organs (eyes, ears, nose, tongue, skin etc.). These receptors receive the impressions that inform of physical energy from external world. These various physical energies such as light, heat, sound, smells cannot be directly detected by our brain but are normally responded to by neurones which are special cells within our brain that receive, move, process and store information. Thus, stimulation of sense organs is mechanical.

There are five types of sensations corresponding to the five sense organs namely:

- visual (seeing-eyes)
- auditory (hearing-ears)
- olfactory (smelling-nose)
- tactile (touching-skin)
- tasting (tongue)

b) Perception

It is the process whereby the brain interprets sensations, giving information order and meaning. **It is the process by which sensations or impressions from sense organs are made meaningful.** As soon as one becomes aware of the object or organism, then sensation process changes to perception. It takes into account experiences stored in our memory, the context in which the sensation occurs and our internal state (our emotions and motivations). It is the process of forming hypotheses about what the senses tell us.

In practice, sensation and perception are virtually impossible to separate, because they are part of one continuous process. Thus, sensation and perception are so intermingled that one cannot say when sensation stops and perception begins in practical life. Without the ability to organize and interpret sensations, life would seem like a meaningless jumble of colors, shapes, and sounds. A person without any perceptual ability would not be able to recognize faces, understand language, or avoid threats. Such a person would not survive for long. In fact, many species of animals have evolved exquisite sensory and perceptual systems that aid their survival.

c) Basic principles of perceptual organisation

In the perceptual process, the senses work together to provide us with an integrated view and understanding of the world. Perception is a constructive process by which we go beyond the stimuli that are presented to us. From what we sense in our environment, the brain constructs a meaningful situation.

The following are principles that describe how we organize and construct pieces of information into meaningful wholes. They include: closure, proximity, similarity, and simplicity.
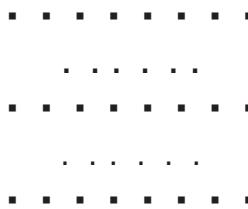
- **Closure:** We perceive things by grouping them as complete figure rather than open and breaks. We tend to ignore the breaks in the figure below and concentrate on the overall form as a triangle.
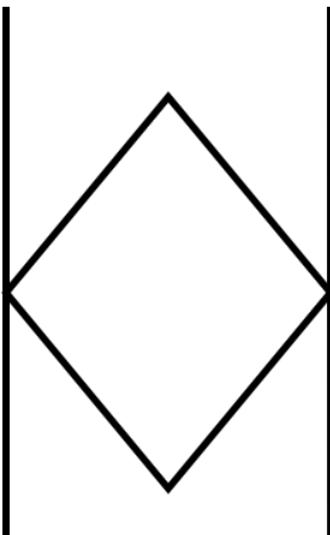
- **Proximity:** Things that are closer together are grouped together. As a result, we tend to see pairs of dots rather than a row of single dots in the following patterns.

- **Similarity**: Elements that are similar in appearance are grouped together. We see horizontal rows of dots and squares instead of vertical mixed columns below.

- **Simplicity:** When we observe a pattern, we perceive it in the most common straightforward manner. For example, most of us see the figure below as a square with lines on two sides, rather than as the block letter **"W"** on the top of the letter **"M".** We generally tend to choose and interpret the simple one.

According to Gestalt psychologists, perception of stimuli in our environment is not simply putting together individual elements. It requires an active, constructive process of the brain. It is when we put together bits and pieces of information into a whole that we can better understand and solve problems in our environment.

Example: To introduce a new health package into a community, it is important to see the culture, economic and consciousness of the people in that community. It requires an integrated approach.

- **Figure-Ground perception**

It is the perceptual relationship between the object of focus (the figure) and the field (the ground). The figure has form or structure and appears to be in front of the ground. The ground is seen as extending behind the figure. The relationship can be reversed by focusing on or attending to the ground rather than the figure (for further explanation see the Gestalt perspective of learning under the heading theories of learning).

d) Pathology of perception

Some unusual perceptive experiences

- **Hallucination**

This is perception without real object.

For example:

- Baringa' during the night
- Mental illness (psychosis).

- **Extrasensory perception**

This is the ability to pick up information or make thing happen that would be impossible under normal law of time and space. Extrasensory perception includes four specific areas:

- **Telepathy**

When two people communicate without using the normal senses; the phenomenon is known as telepathy.
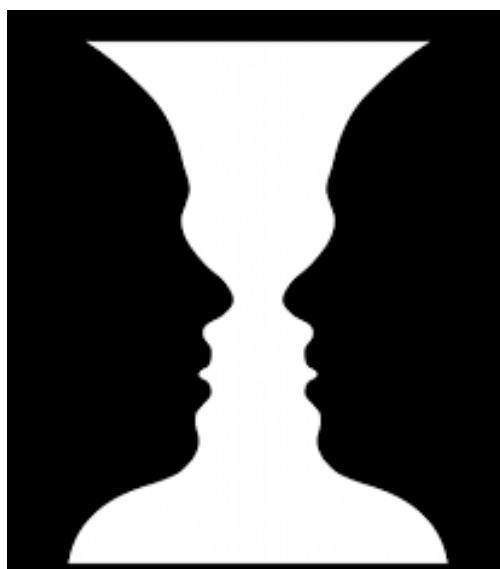
- **Clairvoyance**

This is the power to describe objects or events outside the range of one's senses that no one could possibly know about it.

- **Precognition**

This is the ability to have knowledge of something that has not yet happened. Psychologists caution however that true precognitive experiences probably relate the work of unconscious.

- **Visual Illusions**

Source: https://www.scienceabc.com/humans/what-are-optical-illusions.html

A visual *illusion* occurs when your perceptual experience of a stimulus is substantially different from the actual stimulus you are viewing." What image do you see? One person can see two black faces facing each other while other people may perceive a white vase.

e) Factors that influence human perception

- **Past experience**

Past experience plays a very important part in perception. It is one of the factors within the perceiver that accounts for the organisation of perception. When a person has already perceived a group of stimuli as one object or subject, he/she is likely to perceive it as the same object or subject in future. For instance, if a dog has bitten a child, he perceives all dogs as dangerous and runs away at their sights.

- **Needs and motives**

Needs and motives are other internal factors that influence perceptual organisation. If an individual is hungry, he is more likely to perceive the food objects in a shop than dishes on which the objects lie. The stimulation from the food object is organised as a separate object and perceived. At times when one is hungry the food served will be quite tasty even if it is not. On the other hand, when an individual is not hungry one becomes critical with respect to the quality of the food served.

- **Culture**

Culture influences perception of people to a great extent. Different individuals will perceive the same situation, object or item differently due to different social and cultural backgrounds they have been brought up in. The norms and values of a society would dictate perception to a great extent. The different beliefs different people have over the same aspect in the society may differently influence their attitude towards the same. For instance, Christians perceive cow as a source of food while Hindus perceive the same as god.

- **Level of intelligence**

Intelligence would affect perception in that different people with different intelligence levels will have different judgements, initiative, sensations, ability to comprehend, ability to reason, to solve problems and finally to interpret the perceived object or situation. Moreover, intelligence being global adjustability will make different people to adjust differently to different situations.

- **Attention**

Attention is the selective activity of the mind (consciousness) or process of getting an object of thought clearly in the mind. When a person is showing attentive attitude, his restless random movements stop and his whole body is oriented towards the source of the stimulation. For example: visual attention, tactual attention, etc.

f) Pedagogical conclusion
- Enhance student's observation spirit by experiencing them a lot in observation.
- Get students used to observe deeply.
- Start by simple to complex; easy to difficult.
- Consider the whole first before getting in separated parts.
- Encourage education by using senses.
- Use teaching and learning aids that have good qualities.
- Challenge learners with tasks that require them to pay attention and concentrate on the activities.
- Consider the age level of learners.

Application Activity 10.1.3.4

1. Briefly describe the differences between 'sensation' and 'perception'.

2. List and explain the principles of perceptual organization.

3. With examples, explain what a teacher can do when teaching to strengthen perception of learners.

10.1.3.5 Interest

Activity 10.1.3.5

- Why do we need to be interested in what we are doing?
- Does a teacher need to make the lesson interesting? Why?

a) Definition

We can define interest as:

- A feeling of curiosity or concern about something that makes the attention towards it;
- A power, quality or aspect of something that attract attention, concern or curiosity;
- Something that somebody enjoy doing.

Example: The food interests a hungry person.

b) Types of interest

- **Direct interest:** it is the interest aroused by the immediate satisfaction of the need.

  The direct interest is positive on child's personality while indirect interest is negative because it is based on fear of negative sanction or punishment, but it tends to make a positive student. Example**:** eating

- **Indirect interest:** it is the interest satisfied in a distant time.

Example: studying foundations of education in order to succeed national examination.

c) The link between interest and effort

The interest and effort are interdependent. Interest stimulates effort and effort in turn increases interest.

d) Importance of interest

Interest is very important in our daily activities. Interest makes our attention to be sustained. It stimulates our attention and effort in order to satisfy our needs. It helps us to memorize. It facilitates our perception, etc.

e) Pedagogical conclusion

- The teacher must know the dominant interests of the child, their evolution and taking them into account in teaching learning process.
- Develop child's intellectual interest especially in studying.
- Arouse learners' interest by considering their preferences in the lesson.

10.1.3.6 ATTENTION

a) Definition

Attention is the cognitive process of selectively concentrating on one aspect of environment while ignoring other things. Attention is the process or act of concentrating on one or more environmental factors that your five senses experience (Barkley, 1997). For example, listening carefully to what someone is saying while ignoring other conversations.

b) Forms of attention

When it comes to studying or learning, one of the most important ingredients is focus and attention. In case of learning, you'll need to focus or concentrate on the subject matter being thought. To learn how to adapt, knowing the four kinds of attention related to cognition is a must. These include: sustained attention, alternating attention, divided attention, and selective attention.

- **Sustained Attention**

It's pretty simple to catch anyone's attention but it is certainly a challenge to sustain or keep it for any considerable amount of time. Sustained attention is the ability to keep that focus or concentration for long periods of time even if the individual is exposed to the repetitive action or activity. This is the kind of attention that is usually used for majority of the learning and working activities like listening to a teacher lecture the whole hour, read books and notes the whole night to review, in answering test or exercise questions, completing an extensive project, or perhaps, regularly working on a repetitive task. This kind of attention should be very beneficial but it is the kind that is oftentimes very hard to acquire or achieve.

- **Selective Attention**

When faced with a number of environmental factors or stimuli, the human brain naturally responds by selecting a particular aspect or factor to focus on. This is known as selective attention. Selective attention is the ability to select from the many factors or stimuli and focus to only one that you prefer or your brain selects. This is not really a special and hard to achieve kind of attention. Almost all people use this cognitive ability almost all the time. Every day, people are usually exposed to a number of environmental factors at home, at the school, at the office, etc but their brains respond by focusing only to the particular factors that matter most or those that people choose to focus on. By better understanding it however, the person is better able to select the appropriate stimuli to devote his or her attention to.

- **Alternating Attention**

The next kind of attention is the alternating type. As its name suggests, it's the ability to switch or immediately transfer your focus or concentration from one activity to another. The brain also instantly adapts even if the succeeding activity has a different level of knowledge or comprehension required. Similar to selective attention, alternating attention is also an ability that is used almost all the time. Every day, you need to make sudden changes on your activity or action which also requires your attention to shift.

- **Divided Attention**

The last kind of attention related to cognition is an interesting one, divided attention. Divided attention is the ability of an individual to focus or concentrate on two or more environmental factors, stimuli, or activities simultaneously. In its simplest form of explanation, experts call it the ability to multi-task. Multi-tasking is considered a desirable talent for those who are gifted with this ability. But, this means that it will be very difficult for other people to acquire this skill. Divided attention or the ability to multi-task can be learned through practice or gaining expertise in a certain kind of activity.

Psychologists proposed three ways of arousing child's attention:
- **From 0 to 2/3 years:** focusing on affection;
- **From 2/3 to 6/7:** focusing on competition;
- **From 6/7 to 11/12:** get child to be attentive in his activities.

c) Factors influencing attention
- Interest: interest and curiosity are very important in the increasing of

attention.

- One's will
- Good physical conditions: good health, good climate.
- Changing things: (especially on children) purified air, etc.
- Removing Distracting things.
- Teacher's personality.
- Fear of punishment.

d) Importance of attention

Attention is important in all intellectual activities. It is useful in the good functioning of all mental activities such as intelligence, reasoning, memory, judgment etc.

e) Causes of attention weakening

- Lack of discipline,
- Inadequate interruption,
- The health state,
- Lack of interest,
- Absent mindedness;
- Behavioral problems,
- Galloping imagination.

f) Ways of enhancing students' attention

- Stimulate their senses especially sight and hearing by using attractive colours and raising high voice.
- Movement, change, contrast and doing unexpected things stimulate attention.
- Repeating something many times facilitate attention.
- Using attractive teaching (learning aids).
- Using active methods
- Preparing subjects which interest students.

g) Attention and absent-mindedness

Absent-mindedness is not the lack of attention. But it is habitually inattentive where somebody tends to be preoccupied or forgetful.

What can a teacher do to improve learners' attention during teaching and learning process?

10.1.3.7 Imagination

Activity 10.1.3.7

Discuss what you know about the term imagination and suggest its importance to you as a teacher.

a) Definition

The imagination is the ability to form images and ideas in the mind, especially of things never seen or experienced directly. It is also a conscious mental process of evoking ideas or images of objects, events, relations, attributes, or processes never before experienced or perceived.

b) Forms of imagination
- **Passive or reproductive imagination**: It is imagination by which mental images perceived by the senses are elicited.
- **Active, constructive or creative imagination**: It is imagination by which the mind produces images of events or objects that are either uncertainly related or unrelated to past and present reality.

c) Some imaginations which are not common or non-common imagination
- **Dreams:** A sequence of images that appear involuntarily to the mind of someone.
- **Illusion:** misperception of external stimuli.
- **Hallucination:** sensory perception in the absence of external stimuli.

d) Importance of imagination
- Imagination reduces the sorrow or grief of the moment by hoping of the good future.
- Imagination stimulates creativity and innovation.
- The imagination is important for apologetics.

e) Some ways of developing child's imagination

- Developing some topics on choice;
- Ask them to do inventive drawing;
- Doing dramatizing exercises;
- Facilitating role playing at school;
- Making some objects for particular use.

N.B.: Imagination is not sufficient only; it must go with reasoning.

f) Pedagogical conclusion

- Images come from what we have seen by using our senses. So, we must shape students' imagination by:
    - Showing them good images or pictures;
    - Telling them good stories;
    - Make the loving music;
    - Etc.

- Telling students that a good imagination must be accompanied by intelligence and reasoning.

- Prevent them from basing their belief on dreaming.

Application Activity 10.1.3.7

Describe what a teacher needs to do to develop imagination of learners.

10.1.3.8 REASONING

Activity 10.1.3.8

What is reasoning and how a teacher can help learners to develop their reasoning?

a) Definition

- It is the process of thinking in which conclusions are drawn from a set of facts.
- It is also thinking directed towards a given goal or objective.
- To reason is the ability to think logically and analytically.

Although reasoning was once thought to be a uniquely human capability, other animals also engage in reasoning.

b) Forms of reasoning

- **Deductive reasoning (From general to particular)**

Deduction is a process of reasoning in which reasons are given in support of a claim. The reasons, or justifications, are called the premises of the claim, and the claim they purport to justify is called the conclusion.

Example
- Premise 1: All humans are mortal,
- Premise 2: Socrates is a human
- Conclusion: Therefore, Socrates is mortal

The reason in this argument is valid because there is no way in which the premises, 1 and 2, could be true and the conclusion 3, false.

- **Inductive reasoning (From particular to general)**

Induction is a process of drawing a conclusion about an object or event that has yet to be observed or occur, on the basis of previous observations of similar objects or events.

For example, after observing year after year that a certain kind of weed (unwanted plants) invades our yard in autumn, we may conclude that next autumn our yard will again be invaded by the weed; in this cases we infer, or reach a conclusion based on observations. The observations or assumptions on which we base the inference, the annual appearance of the weed, constitute the premises or assumptions.

c) Importance of reasoning
- Reasoning helps us to extend our knowledge.
- Reasoning is a fundamental instrument of science.

d) Pedagogic conclusion

It is important to make your students reasoning develop because:
- All sciences are the result of abstraction. So, we must start from the concrete to abstract and after observation abstract is very important.
- We have to associate induction with deduction and vice-versa.
- Induction is used in languages to teach grammar and in sciences and mathematics.

Discuss the importance of reasoning and show what a teacher can do to develop learners reasoning abilities.

10.1.3.9 Judgement

Activity 10.1.3.9

In our everyday life we are affected by conclusions and or decisions we make ourselves. And this is done through evaluation of evidence in the form of making a decision.

- In your own words how do you define judgement?

- What is the importance of judgement when someone is engaged in academic activities?

a) Definition

Judgment is the ability to form correct conclusion based on knowledge and experience. It is also the considered as evaluation of evidence in the form of making a decision.

b) Elements of judgment

In all judgments, we distinguish three elements which are:

- **Subject:** the being that you can assert or deny.

- **Predicate:** what you assert or deny. This is what we call attribute.

- **Copula**: A verb which join the subject of a sentence to the predicate. It must be the verb to or other similar verb.

c) Classification of judgments

The classification of all judgments is done according to different criteria:

- **Considering objective, there are:**
  - Objective judgment: It is a judgment which is in accordance with reality and not based on feelings. Example: The pot is breakable.
  - Subjective judgment: It a judgment which is based on feelings. It is also called skewed judgment.

- **Considering quality:** There is positive and negative judgment according to wether the expressed connection is convenience or inconvenience.

- **Considering quantity there is:**
  - **General or universal judgment** which concerns all subjects.

    Example: All people are mortal.

  - **Particular judgment** which concerns some subjects.

    Example: Few people are good.

  - Individual or singular judgment which concerns on subject. Examples: That man is big; This student is weak.

d) Importance of judgment

- All thoughts are directly or indirectly related to the act of judging. The true knowledge is based on judgment. So, to be intelligent, to be wise, to have common sense, depends on our ways of judging.

- Common sense is the good judgment as it is seen in everyday life; it discerns the true to the false, the good to the bad, etc.

- Learning is affected by ways an individual judge because when learning an individual need to receive information and decide on what to he/she considers as correct or incorrect. Therefore, poor judgement will lead to poor learning by accumulating wrong information blindly.

e) Pedagogical conclusion

- We must consider judgment as an important thing in education.

- Judgment must be developed in all branches: sciences, history, etc.

- We have to enhance students' critical sense by not accepting everything.

Application Activity 10.1.3.9

Justify what a teacher can do to help leaners improve their judgement in their everyday work.

10.2. Factors related to the environment (External Factors)

10.2.1. Family related factors

According to Fraser (1998), learning environment refers to the social, psychological and pedagogical contexts in which learning occurred that affect the student's attitude and the achievement.

Definition

According to advanced learner's dictionary, family is defined as a group consisting of one or two parents and their children. Habighust and Levine (1990) observed that parents of all classes realize the importance of education. Different families create environment that influence children's intellectual growth and educational motivation in different ways. Children are the ones who give the family its character. It is only in such situation that a family can untie its climate relationship and perform its functions of rearing, protecting and educating the children.

Family was also defined as the smallest segment of the society where family members discuss various topics of interest sharing freely their thoughts - happiness, frustration, fear, pain and joy etc. This is possible because the pillar of trust develops right from the childhood when child interacts with father, mother and elders and as he/she grows the trust and topic they share change with time and family members.

The composite set of behavioural settings in which individuals within a community act with diverse consequences in this context therefore, the environment is conceptualized in agglomeration of all conditions that affects children.

A. Family environment

Shertzer and Stone (1981) observed that family influences including child rearing practices and socio-economic level appear to affect vocational development. The family could be regarded as an essential agent of education. In Africa, before the Western Civilization, the family was responsible for playing the role of teaching knowledge skill and attitude. Today, the family is still playing such role of educating children. Wilson (1992) suggested that family environments were much more in influencing adolescent's aspiration. The social upbringing of the child begins with family. It is the family that makes the child to identify himself with the society, culture, religion or social class. The family continues to exercise a strong influence over the child's live and academic performance in the school. It must be noted that families differ vastly in terms of their significance in the social order. Some have more prestige, money and some have wider experience and knowledge of how to operate within the social or school environment.

Okonzua (1990) noted that there are quite a few parents who feel that once they have accomplished a feat, but contrary to expectations, a lot more work has to be put in, in rearing the child until maturity.

B. Family size

Family size is the total number of people consisting of parents and their children. It is worthy to mention that the family size is one of the factors that determines the academic performance of students. Large family size creates in the upbringing of their children and identified problem of feeding- insufficient food, poor clothing, insufficient fund, disciplinary problem and malnutrition. Students need nutritious food and regular medical care. These things help them get a good start in life and lessen the chances that they will later have serious health problems or trouble learning. Nutrition plays a vital role in the development of students. If a student is hungry in school, he/she is less likely to concentrate. This idea dates back to early psychological finding that, before one can be complete, basic need must be met.

Women's World (1984) asserted that most parents do not care for their home again. They do not even plan on how many children they want to have. Students who disrupt schools with extreme problems come mostly from poor home with large family size.

Havighurst and Livine (1990) observed that although parents of all class realize the importance of education, they do not stimulate children to learn in the same way. It is clear that a home environment plays a very crucial role in a child's educational development.

C. Socio-economic status of parents

Socio-economic status of parents has relationship with categories and movements among categories which result into social stratification.

Basing on the income, level of education and occupation, people in modern societies have been put in three major categories:

- High socio-economic status: it comprises the rich people.
- Middle socio-economic status: it encompasses moderately rich people.
- Low socio-economic status: it includes the poor and those with low or little education.

It the society, we can find movements among or within social classes. This is termed as **social mobility.** Education is a tool of social mobility. According to Nelson Mandela, "*Education is the great engine of personal development. It is through education that the daughter of a peasant can become a doctor, that the son of a mine worker can become the head of the mine, that a child of farm workers can become the president of a great nation. It is what we make out of what we have, not what we are given, that separates one person from another*" .

Socio economic status of parents affect their children learning in way that children can even drop out schools. Nwa-chili (1981) highlighted that socio-economic characteristics of the family have a bearing on the child's success or failure in school. They have a bearing also on the child's entry into school, and the duration of stay and achievement at school. A child from high and middle socio-economic class is more likely to experience and acquire an elaborated long wage code while the child from the lower socio-economic class is faced with a restricted language code. A school is of course predominantly concerned with language elaborate code, therefore making it easy for a child from higher or middle class to adjust.

It is the environment of middle class that decides how a child's hereditary factors will be utilized. Environment exerts an influence on mental development. Children who spend their early age in economically and privileged homes seem to perform more intelligently.

D. Parents' educational level

Sarigiani (1990) noted that parental educational level or attainment has been found to be significantly related to the educational attainment of their children in both rural and urban areas. The children of more educated parents tended to have higher aspirations and higher education plans. Both these students help illustrate that those children from parents with higher education levels tends to do better than the less advantaged group. Children in turn are then disadvantaged when their parents have a lower education level as well. It may form a cycle of uneducated family members.

Application Activity 10.2.1

With relevant examples, explain how family related factors can affect learning.

10.2.2. School environment

Activity 10.2.2

Perhaps you have heard information saying that some schools perform better than others and this is true. Why do you think some schools perform better than others?

It makes sense that students would do better when they learn in positive environments. After all, most people would agree that some environments are more conducive to learning and academic performance. A student taking a test in a quiet, peaceful room will almost certainly do better than a student taking the same test in a loud, chaotic room.

The location of the school, its surrounding, leadership (pedagogic follow up), teaching method, curricula, the number of students in classrooms and timetable make school environment; all these things can influence the learning of students.

A. Factors related to the school leadership

The style of leadership influences the way learners work in the school and affect their performance'

Types of leadership styles

There are four major styles of leadership which apply well in the educational setting. While each of these styles has its good points, there is a wide berth of variation, and in fact, transformational leadership is truly an amalgamation of the best attributes of the other three. Let's explore how servant leadership, transactional leadership, and emotional leadership compare to transformational leadership.

- **Servant leadership**

Servant leadership takes the focus from the end goal to the people who are being led. There is no sense of self-interest on the part of the leader, who steps back and supports only the interests of the followers. Guidance, empowerment and a culture of trust are hallmarks of this style of leadership. A servant leader puts complete trust in the process and in his or her followers, assuming that those within the organization will align with its goal.

The primary issue with servant leadership is that it's not viable on an organizational level, in large part because it does not keep its eye on the prize. With the focus being so entirely upon the needs of the people within the organization, the goal of the organization is nearly completely lost and therefore not attained. Education happens in the real world, where unfortunately people have shortcomings and quite often need guidance in order to get things going in the right direction. Transformational leadership offers that same focus on the individual, while building an investment in the end goal of the organization and thereby creating a push to achieve it. Transformational leadership takes service leadership to the next level.

- **Transactional leadership**

Give and take is the hallmark of transactional leadership – it is indeed modelled just like a business transaction. Of course, the employer/employee relationship is largely transactional as is.

Employers need work done and employees do that work in exchange for money. That "quid pro quo" ("something for something") is the heart of the workplace, and everyone is generally happy with this arrangement, but it only works if everyone involved sees it that way. In education, there is often more at stake for employees who quite often understand their jobs to be more than just a simple exchange of services for money, but rather see their higher purpose. Money is

therefore not the motivating factor.

This is where transformational leadership can step in to compliment transactional leadership, taking the whole process as step further by building upon other forms of motivation outside of simply the exchange of goods and services for money. However transformational leadership only really works of the leader is able to keep up the charisma and interpersonal relationships which are required for it to work. When transformational leadership fails, the last resort is quite often transactional leadership, which is easy and straightforward, if less than effective in the long term.

Perhaps the biggest contrast between transformational and transactional leadership is that the latter is laissez faire, in which the leader allows employees to do as they like, whereas the former is completely hands on and intrusive in its nature.

- **Emotional leadership**

Where transactional leadership was concerned primarily with the exchange of goods and services, emotional leadership is concerned with the feelings and motivations of followers. It takes the focus completely to the other side of the spectrum – demanding that leaders be emotionally intelligent themselves and then to motivate through the use of that emotional intelligence.

Emotional leadership and transformational leadership have a great deal in common with each other. With emotional leadership, the leader taps into their emotional center in order to find the path to guiding their followers. People sometimes argue that transformational leadership requires that same level of influence over emotions, however there is a fundamental difference in the two in that transformational leadership is by necessity a rational process rather than an emotional one.

- **Transformational leadership**

Transformational leadership takes from each of the other kinds of leadership its best qualities and then uses those, along with a deep sense of shared purpose, to motivate subordinates. While the other forms of leadership focus on one singular aspect or another, transformational leadership takes a broad view of the issues surrounding leadership and then uses those as a driving force for meeting the overall goals of the organization. For education in particular, transformational leadership offers the best of everything – from tapping into the emotions of workers to offering the compensatory core that is the case for all forms of business, to guiding from a place of support.

However, since transformational leadership is informed by all of these various types of leadership, it's always a good idea for leaders to learn more about these other styles so as to offer a deeper understanding of these forms so as to offer those in whose service they are the best support and guidance possible.

B. Factors related to the teacher

- **Teacher's Personality**

Personality is key component or aspect of professional attitude of teacher having significant impact upon the student's academics. Students are considered a keen observer, observe the teacher from all aspects. Some teacher having such type of personality which motivates the students to adopt his/her personality. It is necessary for teacher to adopt an impressive personality for motivating the students towards its adaptation in academics as well in routine life.

Here are some of practices of the teacher that affect learner performance in the classroom, in the school and society in general.

- **Teacher's qualification**

This affect learning in a way that teachers who are not qualified to teach the subject they are teaching may give inadequate material or fail to properly impart material to learn.

- **Length of the material**

Too much learning content in too short period may also affect learning. This does not allow students to fully understand and grasp the information imparted to them.

- **Motivation in classroom**

Teacher who do not motivate learners in the classroom create a demoralizing situation, learners may lose interest or even hate the subject.

- **Teacher's planning**

Teachers' planning is a crucial element of teaching and learning process as it precedes the process and its significance goes to the achievement of the learners. Importance of lesson planning was discussed in Foundations of Education, year one, unit 8.

- **Teacher's relationship with learners.**

Although not all students can have good relationships with their teachers, teachers should be aware that strained relationship immensely affects a student's academic performance. Poor relationship causes anxiety and conflict which are detrimental to the effective learning. Students who hate a teacher or who are hated by the teacher, psychologically become disturbed and cannot learn properly. Students' problems become worse if their fellow students also reject them for the same reason.

C. Factors related to the school location

- **Rural and urban schools.**
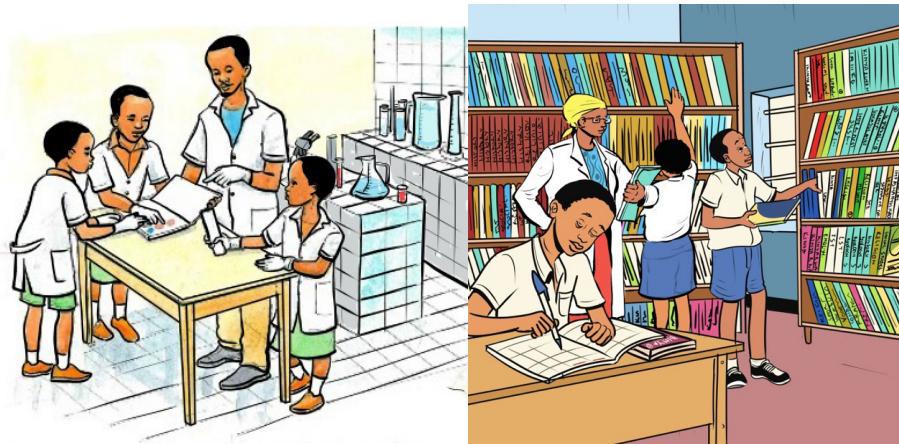
A research by Oworye, J.S. (2011) showed that there is a significant difference between the academic achievement of students in rural and urban secondary schools as measured by senior school certificate examinations. To him, the geographical location of schools has a significant influence on the academic achievement of students. Also he pointed out that uneven distribution of resources, poor school mapping, facilities, problem of qualified teachers refusing appointment or not willing to perform well in isolated villages, lack of good road, poor communication, and nonchalant attitude of some communities to school among others are some of the factors contributed to a wide gap between rural and urban secondary schools. Schools located in rural areas lack qualified teachers It is because, they do not want going to rural areas that lack social amenities. They prefer to stay in urban schools. It is also observed that a lot of coaching of urban students is done to prepare them for public examinations, thus promoting the spirit of competition and rivalry that may be lacking in the rural pupils, probably, owing to limitations in exposure and experience. Also, the study has proven that students in urban areas had better academic achievement than their rural counterpart. In other word, students in urban locations have a very advantage of favourable learning environment that apparently enhance their academic performance.

- **Living near the school.**

Advantages of living near a school

When looking for a new home, parents need to consider many options. If children are going to attend the neighbourhood school, the proximity to the school is one item that should be seriously considered. There are significant benefits to living near a school. The convenient and safer location provides greater flexibility in daily time management while simultaneously instilling childhood independence. Therefore, schools should be located near the residences of the communities to be served.

D. Equipment, teaching and learning materials

Images above give us the information about equipment and or facilities of the school. School facilities and students' academic performance has a high degree of relationship. Therefore, it is possible for the students' academic performance to depend on school facilities.

A conducive environment for students would enhance effective and efficient teaching and learning. There is a fact that, it is not just important that schools should be richly artistic with educational facilities. It is equally very important that such facilities be well managed and maintained by the school administrator, teachers, students, stakeholders, community, parents and other educational agencies to facilitate the schools in relation with the over increasing enrolment calls for proper and timely maintenance culture of the available school facilities.

The neighborhood, parents' level of education socio-economic living conditions of the family can also influence the learning of students.

Application Activity 10.2.2

Assume that you are a parent, with the knowledge you have about schools and their environment, select the characteristics of the best school to which you would like to take your children.

10.2.3. Educational effect of having knowledge of factors that influence learning

Activity 10.2.3

Review all the factors that influence learning and predict the qualities of an effective teacher.

The knowledge of factors influencing learning will help the teacher:
- To cater for individual differences when teaching a given subject.
- To motivate learners.
- To use varieties of methods when teaching.
- To detect learning styles of learners and teach them accordingly.
- To communicate with parents about the problems of learners.
- To create a conducive and inclusive environment in the classroom.

Application Activity 10.2.3

With examples explain educational effects for teaching factors influencing learning.

End unit Assessment

1. With examples, explain different categories of factors that influence learning.

2. With examples, describe a conducive home and school environment you would like your child to stay in with reference to different factors that influence leaning.

UNIT
11

CHILDREN'S RIGHTS AND RESPONSIBILITIES

Key unit competence: Display commitment to ensuring children are respected and their legal rights upheld

Introductory Activity

1. Which major world event, in which 50-60 million people died, prompted the start of Human Rights laws?

2. Why do we need Children's rights?

11. 1. Key concepts

Activity 11.1

What do children need to grow well?

Right: what an individual deserves. E.g. a TTC student has a right to go to the health center for treatment if they are sick.

- **Human rights**: rights and freedoms every human being is entitled to. Human rights belong to all human beings without any discrimination. Examples of human rights include: right to life, right to education and decent work, right to freedom of speech, etc.

- **Responsibilities**: duties we have to our families, the society, or ourselves. E.g. a TTC student should report to the discipline office to ask for permission to go to the health centre if they are sick.

- **Violations**: actions that break rules of society and usually harm another person in some way. E.g. If a TTC student is sick and goes out of the school without informing the relevant authority, then they are violating the rules of the school.

- **Abuse**: is action, behavior, or inaction by one person that hurts another, emotionally or physically. E.g. A student calls names a fellow classmate with an intention to get them hurt

- **Duty bearers**: People held responsible for protecting the rights. According to the law, parents, schools, and the government are "duty bearers" held responsible for protecting child rights. Violations of these rights are punishable by law.

- **Law:** legal obligation to which failure may inflict punishment. There are different types of laws depending on how they were established.

- **Signing the convention:** when a country signs the convention becomes a party/member to that convention. All the countries have signed the UNCRC.

- **Ratify/Ratification**: '**Ratification**' is an act by which a State agree by signing to be legally bound by the terms of a particular treaty. The country that ratified the treaty/agreement is hold accountable for its implementation. To **ratify** a treaty, the State has to first sign it and then fulfils its own national legislative requirements. So far only USA has not yet ratified the UNCRC.

Application Activity 11.1

With examples, explain the following concepts: right, human rights, violation, duty bearer, responsibilities, abuse, law.

11.2. Categories of rights

Activity 11.2

In which categories can you put people's needs?

Categories of child rights

Category	Definition	Examples
1. Survival (provision)	Basic needs that children must have to ensure good health for physical growth, i.e. Having basic needs met	• Right to life • Right to have enough food • Right to shelter • Right to clothing • Right to have clean water • Right to health care
2. Development	Opportunities that will enrich children's lives and contribute to their skill and personal development i.e. Education and experience which allows a child to successfully develop into an adult	• Right to be with parents or with those who will care for them best (Parental love/care) • Right to education, special care and training, if needed, and the right to free primary education, Special care for children with disabilities • Right to play and the right to meet with other children
3. Protection	Measures to keep children safe from all forms of harm whether man-made or natural disasters,i.e. Protection from harmful influence	• Right not to be hurt or neglected • Physical, sexual, or emotional abuse • Right to be kept from forced labor, not to be used as a cheap worker • Right not to be used as a soldier in wars • Right to be protected from danger • Right not to be deprived of liberty • Right to privacy

4. Participation	Opportunities for children to express an opinion and make choices in matters affecting their lives, i.e.taking part in the wider society and having an input into relevant decisions	• Right to have a name and nationality • Right to have a say in things affecting them • Right to express ideas and opinions about things affecting them • Right to practice their religion • Right to get information they need • Speak their language • Right to speak in their own language • Right to learn about and enjoy their culture • Right to know about their rights and responsibilities

Source: UN General Assembly, Convention on the rights of the Child, 20 November 1989, United Nations, Treaty Series, Vol.1577, p.3,

Application Activity 11.2

The following are the child right based on the UNCRC. Group them into four categories learned above

The right to life (art 6)	The right to health care (art 24)	The right to enough food and clean water (art 24)	The right to privacy (art 16)
The right not to be used as a cheap worker (art 32)	The right not to be hurt or neglected (art 19)	The right not to be used as a soldier in wars (art 38)	The right to be protected from danger (art 36)

The right to be with their parents or with those who will care for them best (art 9)	The right to meet with other children (art 15)	The right to special care, education and training, if needed (art 23)	The right to a free primary education (art 28)
The right to a name and a nationality (art 8)	The right to have a say about things that affect Them (art 12)	The right to have ideas and say what they think they think (art 14)	The right to practice their religion (art 14)
The right to learn about and enjoy their own culture (art 30)	The right to know about their rights and responsibilities (art 42)	The right to get information they need (art 13)	The right to speak their own language (art 30)

11.3. International legal framework of child's rights (UNCRC, African Charter)

Activity 11.3

Are children's rights the same for all children in the world, or each country has its own rights? Discuss.

11.3.1. Summary of the UN Convention on the Rights of the Child (UN-CRC)

#	Article	Category of child right
Article 1	Everyone under 18 years of age has all the rights in this Convention.	
Article 2	The Convention applies to everyone whatever their race, religion, abilities, whatever they think or say, whatever type of family they come from.	

Article 3	All organisations concerned with children should work towards what is best for you.	
Article 4	Governments should make these rights available to you.	
Article 5	Governments should respect the rights and responsibilities of families to direct and guide their children so that, as they grow, they learn to use their rights properly.	Protection
Article 6	You have the right to life. Governments should ensure that children survive and develop healthily.	Survival
Article 24	You have the right to good quality health care and to clean water, nutritious food and a clean environment so that you can stay healthy. Rich countries should help poorer countries achieve this.	Survival
Article 11	Governments should take steps to stop children being taken out of their own country illegally.	Protection
Article 16	You have the right to privacy. The law should protect you from attacks against your way of life, your good name, your family and your home.	protection
Article 19	Governments should ensure that children are properly cared for, and protect them from violence, abuse and neglect by their parents or anyone else who looks after them. -	protection
Article 32	The government should protect you from work that is dangerous or might harm your health or education.	protection
Article 33	The government should provide ways of protecting you from dangerous drugs.	protection
Article 34	The government should protect you from sexual abuse.	protection
Article 35	The government should make sure that you are not abducted or sold.	protection

Article 36	You should be protected from any activities that could harm your development.	protection
Article 37	If you break the law, you should not be treated cruelly. You should not be put in a prison with adults and you should be able to keep in contact with your family.	protection
Article 38	Governments should not allow children under 16 to join the army. In war zones, you should receive special protection.	protection
Article 40	If your are accused of breaking the law, you should receive legal help. Prison sentences for children should only be used for the most serious offences. -	protection
Article 9	You should not be separated from your parents unless it is for your own good - for example, if a parent is mistreating or neglecting you. If your parents have separated, you have the right to stay in contact with both parents, unless this might harm you.	developmental
Article 10	Families who live in different countries should be allowed to move between those countries so that parents and children can stay in contact or get back together as a family.	developmental
Article 31	You have a right to relax and play and to join in a wide range of activities.	developmental
Article 17	You have the right to reliable information from the mass media. Television, radio, and newspapers should provide information that you can understand, and should not promote materials that could harm you.	developmental

Article 18	Both parents share responsibility for bringing up their children and should always consider what is best for each child. Governments should help parents by providing services to support them, especially if both parents work.	developmental
Article 14	You have the right to think and believe what you want and to practise your religion, as long as you are not stopping other people from enjoying their rights. Parents should guide children on these matters.	developmental
Article 15	You have the right to meet with other children and young people and to join groups and organisations, as long as this does not stop other people from enjoying their rights.	developmental
Article 20	If you cannot be looked after by your own family, you must be looked after properly, by people who respect your religion, culture and language. -	developmental
Article 21	If you are adopted, the first concern must be what is best for you. The same rules should apply whether the adoption takes place in the country where you were born or if you are taken to live in another country.	developmental
Article 22	If you are a child who has come into a country as a refugee, you should have the same rights as children born in that country.	developmental
Article 23	If you have a disability, you should receive special care and support so that you can live a full and independent life.	developmental
Article 25	If you are looked after by your local authority rather than your parents, you should have your situation reviewed regularly.	developmental

Article 26	The government should provide extra money for the children of families in need.	developmental
Article 27	You have a right to a standard of living that is good enough to meet your physical and mental needs. The government should help families who cannot afford to provide this.	developmental
Article 28	You have a right to an education. Discipline in schools should respect children's human dignity. Primary education should be free. Wealthy countries should help poorer countries achieve this.	developmental
Article 39	If you have been neglected or abused, you should receive special help to restore your self-respect.	developmental
Article 7	You have the right to a legally registered name and nationality. Also the right to know and, as far as possible, to be cared for by your parents.	participation
Article 8	Governments should respect children's right to a name, a nationality and family ties.	participation
Article 42	The government should make the Convention known to all parents and children.	participation
Article 29	Education should develop your personality and talents to the full. It should encourage you to respect your parents, your own and other cultures.	participation
Article 30	You have a right to learn and use the language and customs of your family whether or not these are shared by the majority of the people in the country where you live.	participation

Article 12	You have the right to say what you think should happen when adults are making decisions that affect you, and to have your opinions taken into account.	participation
Article 13	You have the right to get, and to share, information as long as the information is not damaging to yourself or others.	participation
Article 41	If the laws of a particular country protect you better than the articles of the Convention, then those laws should stay.	participation

Reference: UN General Assembly, Convention on the rights of the Child, 20 November 1989, United Nations, Treaty Series, Vol.1577, p.3,

11.3.2. Summary of the African charter on the rights and welfare of the child

#	Article	Category
Article 1	Member States of the Organisation of African Unity Parties will recognise the rights, freedoms and duties in this Charter and will adopt laws these rights. Any custom, tradition, cultural or religion practice that is inconsistent with these rights are discouraged.	
Article 2	A child means every human being below the age of 18 years.	
Article 3	Every child should be allowed to enjoy the right and freedom in this Charter, regardless of his or her race, ethnic group, colour, sex, language, religion, political or other opinion, national and social origin, fortune, birth or other status.	Developmental
Article 4	If children can voice their opinions, then those opinions should be heard and taken into consideration during legal and administrative proceeding	Developmental
Article 5	Every child has a right to live.	Developmental
Article 6	Every child has a right to be named and registered at birth.	Developmental

Article 7	Every child who is capable of communicating his or her own views should be allowed to express his or her opinions freely.	Participation
Article 8	Every child has a right to free association and freedom of peaceful assembly, in conformity with the law	Participation
Article 9	Every child has a right to freedom of thought, conscience and religion.	Participation
Article 10	Children have the right to privacy.	Protection
Article 11	Every child has the right to an education, to develop his or her personality, talents and mental and physical abilities to their fullest potential. This education also includes the preservation and strengthening of positive African moral, traditional values and cultures. Government should also take special measures in respect of female, gifted and disadvantaged children, to ensure equal access to education for all sections of the community.	Developmental
Article 12	Children have the right to play and to participate fully in cultural and artistic life.	Developmental
Article 13	Every child who is physically and mentally disabled has the right to special protection to ensure his or her dignity, promote his or her self-reliance and active participation in the community.	Protection
Article 14	Every child shall have the right the best attainable state of physical, mental and spiritual health. This includes the provision of nutritious food and safe drinking water, as well as adequate health care.	Developmental
Article 15	Children should be protected from all forms of economic exploitation and from performing any work that is likely to be hazardous or to interfere with their physical, mental, spiritual, moral, or social development.	Protection

Article 16	Children should be protected from all forms of torture, inhuman or degrading treatment and especially physical or mental injury or abuse, neglect or maltreatment including sexual abuse.	Protection
Article 17	Every child accused or found guilty of having broken the law should receive special treatment, and no child who is imprisoned or should be tortured or otherwise mistreated.	Protection
Article 18	Families are the natural unit and basis for society, and should enjoy special protection.	Protection
Article 19	Children should whenever possible, have the right to live with their parents. No child should be separated from his or her parents against his or her will, except when authorities believe it would be in the child's interest.	Developmental
Article 20	Parents or other person responsible for the child should always act in the best interest of the child.	Developmental
Article 21	Government should do what they can to stop harmful social and cultural practices, such as child marriage, that affect the welfare and dignity of children.	Protection
Article 22	Children should not be recruited as soldiers, nor should they take a direct part in fighting wars.	Protection
Article 23	Refugee children should receive appropriate protection and humanitarian assistance.	Protection
Article 24	Those who adopt children shall ensure that the best interest of the child shall be the paramount consideration.	Developmental
Article 25	Children who are separated from their parent should get special protection and should be provided with alternative family care. State should also take all possible steps to trace and reunite children with parents.	Developmental

Article 26	States should address the special needs of children living under regimes practicing, racial, ethnic, and religious or other forms of discrimination.	Developmental
Article 27	Children should be protected from all forms of sexual exploitation and sexual abuse.	Protection
Article 28	Children should be protected from the use of narcotic and illicit use of psychotropic substances.	Protection
Article 29	Government should take appropriate measures to prevent the abduction, the sale of, or traffic of children for any purpose.	Protection
Article 30	States should provide special treatment to expectant mothers and to mothers of infant and young children who have been accused or found guilty of breaking the law.	Developmental
Article 31	Children have responsibility towards their families and society, to respect their parents, superiors and elders, to preserve and strengthen African culture values in their relation with other members of their communities.	Participation

Reference: *Organization of African Unity (OAU), African Charter on Human and People's Rights ("Banjul Charter), 27 June 1981, CAB/LEG/67/3 rev.5,21 I.L.M. 58 (1982*

Application Activity 11.3

After reading African charter on the rights and welfare of the child, highlight those rights which are unique to African child and explain why.

11. 4. Rwandan laws and policies relating to child's rights

Activity 11.4

Search the Rwanda's legal documents and show how Rwandan laws are reflected in the international legal framework of child's rights.

Apart from all the above-mentioned Children's Rights, Conventions on the Rights of the Child and African Charters on the Rights and Welfare of the Child which were signed and ratified by Rwanda; the Government of Rwanda has developed and elected a number of laws and policies protecting the Child' Rights in different domains of life. In the text below, some examples of laws protecting the Child's Rights in Rwanda are presented.

The following is the legal framework for child protection in Rwanda:

- **Childbirth registration and identity/nationality**
    - Law n° 14/2008 of 4/6/2008 relating to the registration of the population and identity cards (Article 8) and
    - Law n° 42/1988 of 27/10/1988, Civil Code First Book – Concerning people and family (Article 117) obliges parents or foster care parents to register a child within first 15 days from birth.

- **Child soldiers**
    - Child law No. 27/2001 of 28/04/2001 (Article 19),
    - Presidential Order n° 72/01 of 08/07/2002 establishing Army General Statutes, in its article 15, prohibits child inscription into the army for conscription into Rwanda Defense Forces (RDF)
    - Optional Protocol to the Convention on the Rights of the Child on the Involvement of Children in Armed Conflict, all prohibit inscription of child into the military.

- **Child labor**

Domestically, there is labor law of 2009 which forbids child labor. Minimum age for employment is 16 years but under some favorable working conditions particularly to do with health and safety conditions and nature of work**.** The Ministerial order N^0. 06 of 13/07/2010 determining the list of worst forms of child labor, their nature, categories of institutions that are not allowed to employ them, and their prevention mechanisms. This order identified five forms of child labor as those that should be considered as the "worst forms of child labor," including domestic work outside the family sphere; agricultural activities on tea, rice, and sugar cane plantations; work in brickyards and sand extraction quarries; crushing stones; and prostitution.

- The labor law provides for labor inspectors at least one per district and one of their attributions is to monitor child labor.
- Internationally, the Government of Rwanda (GoR) has ratified or

acceded to the following but not exhaustive international instruments proscribing child labor:

- The International Labor Organization Conventions 138 and 182;
- The United Nations Convention on the Rights of the Child (CRC)
- CRC Optional Protocols on the Involvement of Children in Armed Conflict and on Child Trafficking, Child Prostitution, and Child Pornography.
- The African Charter on the Rights and the Welfare of the Child.

- **Alternative care**

The Convention on the Rights of the Child (CRC) and African Charter on Rights and Welfare of the Child (CRWC) are international and regional laws to which Rwanda is a signatory to. Article 24 of the CRC states that "*States Parties recognize the right of the child to the enjoyment of the highest attainable standard of health and to facilities for the treatment of illness and rehabilitation of health. States Parties shall strive to ensure that no child is deprived of his or her right of access to such health care services".* Article 15 of the Rwandan child law also stresses this fact. The Minister of Gender and family Promotion issues instructions governing systems of placing children in foster families.

There are no known Statutes of law which governs and determines organization and functions of foster care homes in Rwanda. However, the Ministry of Gender and Family promotion passed national guidelines on a minimum package of services for orphans and other vulnerable children (OVCs) as a technical input to help stakeholders provide quality services to OVC and to support the GoR in its role of ensuring that child rights are not violated. Public institutions, the civil society, the community in general and international organizations are required to adhere to those guidelines.

- **Child trafficking**

Rwanda is signatory to several International Conventions related to child trafficking and they include:

- Convention for the Suppression of the Traffic in Persons and the Exploitation of the Prostitution of Others;
- Additional Protocol to the UN Convention against Transnational Organized Crime to Prevent, Suppress and Punish Trafficking in Persons, Especially Women and Children
- Final Protocol to the Convention for the Suppression of Traffic in Persons and the Exploitation of the Prostitution of Others

- Supplementary Convention on the Abolition of Slavery, the Slave Trade, and Institutions and Practices Similar to Slavery
- Slavery Convention of 1926 amended by the Protocol of 07/12/1953
- ILO Convention n° 29 Concerning Forced Labor
- There is a law n⁰ 51/2018 of 13/08/2018 relating to the prevention, suppression and punishment of trafficking in persons and exploitation of others.
- Under the new law, especially in Article 18, if trafficking in persons is committed on Rwandan soil, a convicted person can be imprisoned from 10 up to 15 years and a fine of 10 up to 15 million Rwandan francs.
- But if such a crime is transnational, the imprisonment is increased from 20 up to 25 years and a fine of 20 up to 25 million Rwandan francs.

• **Sexual abuse**
  - International instruments against Child sexual abuse applicable to Rwanda include CRC,
  - Optional Protocol to the Convention on the Rights of the Child on the sale of children, child prostitution and child pornography
  - ACRWC explicitly proscribe sexual abuse against a child.
  - Child law of 2001 and penal code of 1977 also impose severe punishment to child sexual abuse.
  - GBV Law N°59/2008 of 10/09/2008 prohibits sexual slavery , indecent assaults and sexual torture which carries life imprisonment
  - Due process: There are specialized juvenile chambers in competent courts and administrative rules which ensures due process and speedy trial of perpetrators of crimes against children. In case a child is in conflict with the law, the law guarantees him/her a defense counsel free of charge. However, this is only applicable in criminal matters.

• **Physical abuse**

  - Article 15 of the Constitution of the Republic of Rwanda prohibits torture and its all forms.
  - Rwanda is a signatory to the Convention against Torture and Other Punishment, Cruel, Inhuman or Degrading Treatment. Also, CRC and ACRWC proscribe physical abuse. Due process and legal aid, is the same as above and constant.

- Rwandan Child law and penal code also proscribe and punishes for such acts of child physical abuse.

- Law N°59/2008 of 10/09/2008 on Prevention and Punishment of Gender- Based Violence prohibits gender-based violence against a child (Article, 7). Article 18 prohibits child neglect on basis of his/her sex and it carries a prison sentence from 6 months to 2 years. Article 23 prohibits sexual slavery with prison sentence of 10 to 15 years.

- **Underage marriage**
  - The child law of 2001 particularly in its Articles 47-50 explicitly proscribes under 18 marriages made to both boys and girls. Harsh sentences of minimum 20 years of prison sentence are spelt out for those involved in under 18 marriages. A light sentence of maximum of two years is determined for adults luring into marriage children between 18-21 years. The law punishes even those convicted of aiding and abetting in under age marriages.

  - Labor law which sets 16 years minimum for employment also allows children to seek employment and to engage themselves in economic activities including commercial. Such engagements keep children under 18 and 21 occupied and have less time for redundancy to think and be lured into early marriages. Redundancy is considered as one of the contributing factors to child marriages. Employment and engagement into economic activities reduces poverty which has largely been counted as dominating factor of forced and early marriages.

  - African Charter on the Rights and Welfare of the Child (Article 21) prohibits marriages under 18 and Rwanda as noted above, is a signatory. It is also a signatory to the International Convention on Consent to Marriage, Minimum Age for Marriage and Registration of Marriages.

- **Child refugee protection**
  - Rwandan Constitution (Article 25) and the Rwandan Child law recognize the right to asylum Rwanda.
  - Law n° 34/2001 of 5/7/2001 relating to refugees as modified and completed by Law n° 29/2006 of 20/7/2006 (O.G. n° 15 of 1/8/2006
  - The country is also a signatory to various refugee and stateless persons Conventions which include:

- Geneva Convention on Refugees,

- Protocol to Geneva Convention Relating to the Status of Refugees (UN),

- OAU Convention Governing the Specific Aspects of Refugees Problems in Africa,

- Convention on the Reduction of Statelessness and Convention relating to the status of Stateless Persons.

- The Rwandan Child law in its Article 49 provides that "Any child who seeks to obtain refugee status or who is considered as a refugee in accordance with applicable laws, whether alone or accompanied by his/her parents or any other person, receives protection and humanitarian assistance in order to allow him/her to enjoy the rights that are recognized to him or her". Article 49 of the dame draft law provides for foster care to child refugees.

- **Discrimination**
  - Rwandan Constitution (article 11) prohibits discrimination of any form inter alia; *ethnic origin, tribe, clan, colour, sex, region, social origin, religion or faith, opinion, economic status, culture, language, social status, physical or mental disability or any other form of discrimination.* However, as it can be seen in this Article, discrimination does not include discrimination criteria of age to cater for children.

  - Law n° 47/2001 of 18/12/2001 instituting punishment for offences of discrimination and sectarianism does not cover age. It defines discrimination in its Article 1 as *any speech, writing, or actions based on ethnicity, region or country of origin, the colour of the skin, physical features, sex, language, religion or ideas aimed at depriving a person or group of persons of their rights as provided by Rwandan law and by International Conventions to which Rwanda is party*;

  - Law N° 01/2007 of 20/01/2007 relating to protection of disabled persons in general in its Article 18 states that "*No discrimination of any form shall be subjected upon a disabled person in matters related to employment*" Article 27 provides sanctions to the perpetrators of discrimination against disabled persons as follows*: Any person who exercises any form of discrimination or any form of violence against a disabled person, shall be punished with the heaviest penalty among the penalties provided by the Criminal Code and those of the special laws relating to such a crime.*

1) Explain how children's rights are reflected in the Rwandan laws.

2) What should be done by the teacher/school to make all the above-mentioned Rights, Conventions and Laws known and respected by children and parents?

11. 5. Law relating to the rights and protection of the child, integrated child rights policy, justice for children policy

Activity 11.5

After searching, identify the general principles relating to the rights of the child in Rwanda.

Summary of the law No.54/2011 of 14/12/2011 relating to the rights and protection of the child, integrated child rights policy, justice for children policy.

Child right	Article
General principles relating to the rights of the child	
All children are born equal and should enjoy the rights and freedoms granted by the Rwandan laws without any discrimination.	Article 4
It is not allowed to discriminate children based on their birth conditions e.g. say a child is legitimate, illegitimate or natural.	Article 5
Decision making, whether judicial or administrative, should take the child's interests into account.	Article6
If a child is required to speak in a court, in an administrative institution, or any other decision-making organ, he or she is given a representative to speak on his/her behalf plus his or her opinion is considered based on his age and maturity on the subject under consideration.	Article 7
Every child has right to life. Deliberate abortion is punishable by the law unless allowed for specific circumstances provided by other Rwandan laws.	Article 8

A child is given compensation if he/she is a victim of accident. If the accident results in the child's death, the compensation will be given to his/her family. Compensation may be for moral loss, financial loss or bodily injury.	Article 9
The family, the community, and the government must ensure children enjoy a well- balanced growth, morally, spiritually, physically, socially and psychologically.	Article 10
Civil rights, freedom and duties of the child	
A child has right to an identity: name, nationality and family relations. No one should change a child's identity without permission.	Article 12 and 14
A child should be given name immediately after birth. The name should not be ridiculous in any ways.	Article 13
A child has the right to know his/her parents, stay with them and to be protected by them. Both parents' names will be recorded in the register of births and any other register of the population regardless of the child's birth circumstances. When it is not possible to live with parents, the child has the right to obtain from them the necessary care and to be allowed to visit them if it does not affect anyone's security or the public order. In the case of divorce, children under 6 years should stay with their mothers.	Article 15, 16, 36 and 37
A child has right to freedom of speech, thought, conscious and religion on advice and guidance of parents and guardians but without forcing.	Article 17
A child has right to join association of her/his choice.	Article 18
A child's privacy should be respected. No one should interfere with a child's privacy in a way that endangers her/his dignity or honour.	Article 19
Children should get timely information, rest and leisure.	Article 20
Child responsibilities	
Children must respect any human being, especially parents and guardians. Children should help parents in proportion to their capabilities.	Article 21
A child must love her/his nation and they must go to school (basic education) and work hard for success.	Article 22 and 23
Birth family and foster family of the child	

Each child has the right to have a family that provides to them all the protection and affection necessary for decent development. In the case of a child who cannot live in their family, the relevant authority must give the child a foster family, an adoptive family or a social welfare institution. The child or a member of the foster family must report to the relevant authority if the child faces violence and mistreatment within the foster family.	Article 24, 27, 28, 29, 30 and 35
Parents and legal guardians have responsibilities towards appropriate direction and guidance, education, social-emotional development, civic education and the national culture.	Article 25
The government must support poor families to meet the needs of children in terms of nutrition, health care, education, clothing and housing.	Article 26
A child can speak in a court case about his or her violence and mistreatment in the foster family, directly or indirectly through an adult or psychologist of their choice. The relevant authority will rule on whether the child returns to the foster family or not.	Article 31, 32, 33, 34
Substitution of a child's family	
A child or her/his foster family may request that the child be deprived of her/his biological family.	Article 38
A child will only be put in a social welfare institution if she/he is deprived of their parents and has not yet found a foster or an adoptive family, is born in prison and none of their relatives has accepted to receive them at 3 years, the court has ruled the placement of the child and there is no foster family to receive them, is a refugee and has not yet found her/his parents, is a vagrant under fourteen years and procedures to identify their parents are still in the process.	Article 39
Child's health and welfare	
The government is responsible for the cost of health insurance of orphans and other vulnerable children. Local authorities are responsible to certify such vulnerability. All children must be affiliated to some form of medical insurance.	Article 41 and 45

Children with special physical or mental disability, children with specific diseases shall be placed in special institution for care and treatment. An order of the minister in charge of children determines rehabilitation and social reintegration mechanisms at the end of the health care of the child.	Article 42, 43, 46, 54 and 55
The government takes all necessary measures to ensure that the child enjoys their right to good health such as access to timely immunization, proper nutrition, and clean water. Parents and guardians must not give alcoholic drinks to children, drugs or ask them to associate with those things. They should not take children to bars, nightclubs and other places where drugs are sold or consumed.	Article 44
Education of the child	
Primary education is compulsory and free, parents and guardians should avoid whatever may lead children to drop out.	Article 47, 48
Children in emergency, exploitation and vulnerable children and orphans	
Children seeking refugee status, children affected by disaster or armed conflicts get protection and humanitarian assistance first.	Article 49, and 50
No one should ask children to do the work that is likely to put them at risk or compromise their education, harm their health, physical, mental, spiritual, moral or social development such as drug trafficking, usage of alcohol, cigarette business and consumption, prostitution, beggary, slavery, or kidnapping. Children under the age of 17 must not be employed in the mines.	Article 51, 52, 57
Children in conflict with the law	
A child under the age of 14 cannot be held criminally responsible for their deeds. Parents and guardians will pay the damage caused by such children. Any crime committed by the child will be ruled upon by taking into consideration her or his personality.	Article 58, 59

The judge on a child's crime will consider alternative sentence to imprisonment such as deferred, placement in re-education center to ensure the child's social welfare. The privacy of a child under prosecution must be respected and protected at all stages of criminal proceedings. The government shall provide legal assistance to a child who has no guardian when she/he is tried before courts.	Article 62, 63,
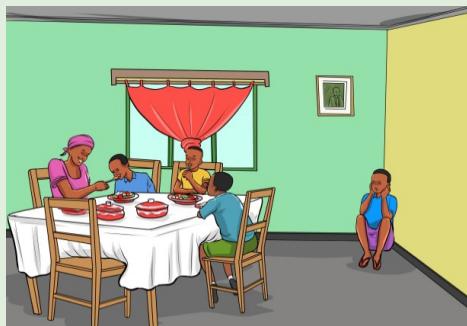
Application Activity 11.5

Categorise the principles of child rights in Rwanda.

11.6. Child abuse

11.6. 1. Types and signs of child abuse

Activity 11.6.1

Picture 1

Picture 2

Picture 3

Picture 4

Picture 5

1) Observe and describe the pictures above.

2) Think-Pair-Share: Have you witnessed such practices in your community? What happened and what has been done?

a) Types of child abuse

Types	Definitions	Examples
Psychological violence	Harming someone's feelings. Making them feel as though they have no value. Making them feel afraid.	• Making threats • Teasing • Intimidating • Insulting • Bullying • Humiliating • Ignoring
Physical violence	Harming someone's body. Making them feel pain or discomfort.	• Holding • Punching • Kicking • Caning • Shoving • Throwing something at someone

Sexual violence	Forcing someone to have sex when they have not agreed. Touching someone in a sexual way when it isn't wanted.	• Rape • Defilement • Indecent touching • Showing off private parts • Speaking about someone sexually in a disrespectful way
Neglect	When action is NOT taken that is needed to care for a child's health or well-being.	• Leaving child alone for long periods without supervision • Keeping child locked in a room • Not feeding child • Not getting medical help for child when sick
Child Labor	Forcing children to work instead of going to school and without receiving proper wages.	• Preventing a child to go to school because he/she has to take care of cattle • Lying to a child that working will lead to better life than studying.

b) Common signs and symptoms of child abuse

- Stomach pains
- Sudden or unexplained changes in behaviour (becoming sad and withdrawn or acting out)
- Fear of someone or some place
- Running away from home
- Nightmares
- Bedwetting
- Self-harm
- Abuse of drugs, alcohol, or other substances
- Possession of unexplained amounts of money or material items
- Visible bruises or broken bones

Application Activity 11.6.1

With examples from your community, explain the types of child abuse. Identify the possible symptoms/signs of abused child.

11.6. 2. Strategies to ensure children's rights are respected

Activity 11.6.2

Explain what is done in families to satisfy children's needs.

Actions to protect against abuse

- **Speak up if experiencing abuse, or seeing signs in others**

  Children should be taught to be brave and speak up if experiencing abuse. They should be able to face the abuser and tell them that their actions are hurting and unlawful. For moderate child abuse and violence, the case should be dealt within the family or by the neighboring community and local leaders. For severe child abuse and violence of child rights, the family member, the neighbor or the local leader should report the case to the relevant authority so that urgent actions are taken.

  Most children do not know their rights, and they do not have the necessary skills to face their abuser, therefore it is the responsibility of adults to speak on their behalf when their rights are threatened.

- **Child abuse cases should not be kept secrets**

  People are often afraid to report child abuse cases because they don't want to break friendship ties with the abusers. Although there is no value to keep away from other people's problems when there is something you can help with, people should also know that the Rwandan child law holds responsible both the abuser and whosoever watches them and refuse to take actions that fall in the best interest of the child. Teachers should role model for other members of the community by respecting child rights in the school environment but also advocating for child rights in their communities. Any case of child abuse should in the school environment should be discussed and dealt with by the school administration with collaboration of the teaching staff.

- **Observe behaviors and actions of others carefully**

  People should always observe the behaviors and actions of others carefully. Sometimes we do not pay attention of what is happening around us. By failing to pay attention on the bahaviors and actions of others, we fail to notice what others might be doing which are likely to endanger children rights. The truth is that many people have little knowledge about child rights. Some parents and guardians are not aware of child rights and are likely to be frustrated when someone criticize them for not respecting their children's rights, therefore it will always be beneficial to talk with them in a kind way if there is some of their behavior that goes against child rights.

- **Teach people about what abuse is and what to do if it happens**

  Child rights were not in the Rwandan school curriculum until the 2015 Competence- Based Curriculum, this means that many people have little or no knowledge of child rights. There are many cases of child rights violations in our community although only a few cases are openly discussed or brought to public knowledge. In most cases, only severe cases of child rights abuse are addressed in the communities we are living in. Most children do not know their rights and may not have the skills and knowledge necessary for facing the abusers especially when they are relatives or employers. Child rights should be explicitly discussed by schools in their professional development meetings so that teachers know which conduct is likely to compromise child rights in the school environment.

- **Abusers of child rights should be punished**

  Whether in the school environment or local communities, people charged and convicted of child rights violations should be punished. Punishing abusers of child rights will pave a way to prevention of violations of child rights that were likely to occur in the future. In addition, criminal proceedings and crime convictions related to child right abuse is another way of teaching the people about child rights. While punishing abusers of child rights is necessary, people should strive to ensure that more preventive measures are in place so that crimes against child rights are prevented way before they occur. While punishing child rights abusers, the relevant authority should take into account the best interests of the child. Care should be taken if the punishment given is likely to worsen the child's general welfare.

- **Provide medical care and emotional support to victims of abuse**

The Rwandan child law makes it clear in its articles 42-55 that the government will take all necessary measures to ensure that victims of child rights abuse get the right and timely intervention such as medical care, psychological and counselling support as well as social rehabilitation. The Rwandan child law prevents people from tampering with the privacy of the victims of child abuse, therefore, parents, guardians, the local communities, and the relevant authority should take care while acting on child abuse cases; they should not report cases in the public or on social media without the permission from the relevant authority.

- **Take action to protect the child from further abuse**

Victims of child right violations should be protected from further abuse. There are provisions by the Rwandan child law and many other local and international laws, orders and treaties related to support mechanisms for victims of child abuse. Some of those interventions include placement of children in foster families or charity institutions, re-admission to educational opportunities, provision of financial or psychological support to victims as well as other forms of rehabilitation. People convicted of child right violations should be tried and convicted to prison sentences, so that they may not repeat the abuse on the victim or other children.

Application Activity 11.6.2

Explain the possible actions that should be taken after the child is abused or to prevent the abuse.

Design or create a chart that shows some of the child's rights and some of the child rights' abuse.

End Unit Assessment

1. Identify children's rights which are unique to African child and explain why.

2. With examples, compare and contrast

- Duty bearer vs responsibilities

- Violation of the rule vs abuse

3. Identify the principles of child's rights in Rwanda highlighted in the law no. 54/2011 of 14/12/2011 relating to the rights and protection of the child.

4. Explain the types of child abuse observed in your community

5. What would you do to stop child abuse in your community?

6. Group children's rights scattered in the table below into four categories learned in this unit.

The right to life (art 6)	The right to health care (art 24)	The right to enough food and clean water (art 24)	The right to privacy (art 16)
The right not to be used as a cheap worker (art 32)	The right not to be hurt or neglected (art 19)	The right not to be used as a soldier in wars (art 38)	The right to be protected from danger (art 36)
The right to be with their parents or with those who will care for them best (art 9)	The right to meet with other children (art 15)	The right to special care, education and training, if needed (art 23)	The right to a free primary education (art 28)
The right to a name and a nationality (art 8)	The right to have a say about things that affect Them (art 12)	The right to have ideas and say what they think they think (art 14)	The right to practice their religion (art 14)

The right to learn about and enjoy their own culture (art 30)	The right to know about their rights and responsibilities (art 42)	The right to get information they need (art 13)	The right to speak their own language (art 30)

UNIT 12

GENDER RESPONSIVE TEACHING

Key unit competence: Make decisions regarding the teaching and learning environment and interactions with students to ensure both girls and boys are successful.

Introductory Activity

Read this scenario and answer to questions related:

Mutesi, a female student recently joined a primary 6 class at a Primary School in Cyete. She comes from a poor family, as seen from her worn out uniform. During one of the group tasks, the class teacher assigned Mutesi to a group whose members were sitting on the floor. When the teacher asked her to stand up and respond to a question during a discussion, she stood up to answer and accidentally exposed her torn panties. Her fellow group members (both girls and boys) laughed at her. Mutesi did not report to school the next day.

Questions:
- What would you say about this particular class management?
- What would teacher do to avoid causing learners embarrassment as well as tension in the class?
- What should the teacher do to convince Mutesi to come back to school?
- Comment about the students' behaviour in this situation and how the teacher should deal with it.
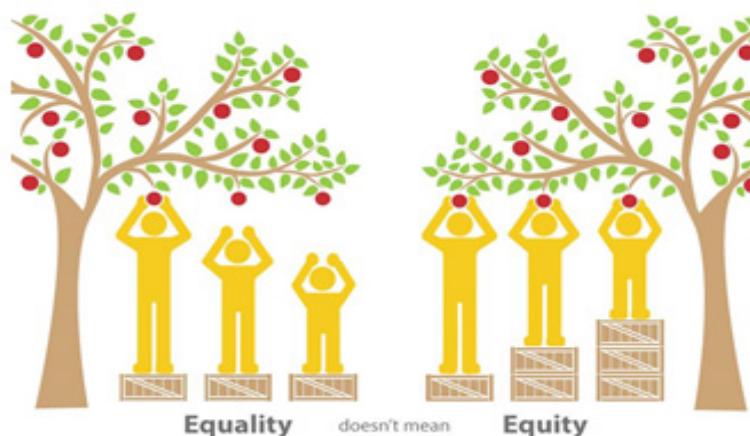
12.1. Gender concepts

Taking your former school as an example, answer the following questions:

1. What subjects are more preferred by girls/boys at your former school?

2. Which kind of punishments were given to female/ male learners at your former school?

3. Were teachers and school leaders fair when punishing girls and boys?

4. Were both girls and boys fairly encouraged to respond to questions in class?

5. *How were boys and girls at your former school, encouraged to participate in class representativeness?*

Equipping pre-service and in-service teachers with knowledge, skills, attitudes and value to empower them to respond adequately to the learning needs of both girls and boys through using gender-aware classroom processes and practices increases teaching and learning quality; which has a significant impact on academic access, retention and performance of learners. Yet many teachers in African countries including Rwanda, conditioned by male-dominated values in their communities, employ teaching methods that do not provide equal opportunity to participation for girls and boys. Neither do these methods take into account the individual needs of learners, especially girls. This unit flows light to pre-service and in-service teachers to be more gender aware and equips them with the skills to understand and address the specific learning needs of both sexes. It develops teaching practices that engender equal treatment and participation of girls and boys in the classroom and in the wider school community (Mlama , 2005).

- **Gender versus sex: Gender** refers to the socially constructed roles, behaviors, activities and attributes that a given society considers appropriate for men and women. **Sex** refers to the biological and physiological characteristics that define men and women. It is defined as the anatomical and physiological characteristics that signify the biological maleness and femaleness of an individual (Susan et.al, 2007).

- **Gender roles** are defined as the social roles that a person is expected to fulfill based on his or her gender. These vary among different societies and cultures, classes, ages and during different periods in history. Gender specific roles and responsibilities are often conditioned by household structure, access to resources, specific impacts of the global economy, and other locally relevant factors such as ecological conditions.

- **Gender stereotypes** are ideas that people have on masculinity and femininity: what men and women of all generations should be like and are capable of doing (e.g., girls should be obedient, are allowed to cry, and boys are expected to be brave and not cry, women are better housekeepers and men are better with machines, or boys are better at mathematics and girls are more suited to nursing).

- **Gender sensitivity** means the ability to recognize and/or the recognition of gender equity and equality issues.

- **Gender equity** is the process of being fair to women and men. To ensure fairness, measures must be taken to compensate for historical and social disadvantages that prevent women and men from operating on a level playing field.

- **Gender equality** refers to the elimination of all forms of discrimination so that all girls and boys and /or women and men have equal opportunities and benefits. In terms of education, it is beyond the equal participation of boys and girls – i.e., it also includes performances as well as creating gender-responsive institutional arrangement.

Equality   doesn't mean   Equity

- **Gender responsive** refers to planning and carrying out programmes, policies or activities in ways that consider the different needs of men/boys and women/girls and involve them in decision making, participation and opportunities. This usually requires developing specific actions to bring about more equitable gender relationships, and it may require clearly targeted budget allocations.

- **Gender awareness** refers to an understanding that there are socially and culturally determined differences between women/girls and men/boys based on learned behaviors which affect their ability to access and control resources.

- **Gender blindness** is the failure to recognize and address the different needs and interests of males and females.

- **Gendered language** is commonly understood as a language that has a bias towards a particular sex or social gender. In English, this would include using gender-specific terms referring to professions or people, or using the masculine pronouns (he, him and his) to refer to people in general.

- **Gender mainstreaming** is the process of incorporating a gender perspective into policies, strategies, programmes, project activities and administrative functions, as well as into the institutional culture of an organization.

- **Gender assessment** examines how a programme or project addresses and responds to gender disparities and inequalities through its objectives, activities and policies.

- **Gender needs** are an acknowledgement that girls/ women and boys/ men often have different needs. These include basic needs or survival needs that relate to inadequacies in living and working conditions, such as toilet facilities, food, water, housing, clothing and health care. These needs can be classified as either strategic or practical.

- **Gender discrimination** refers to denying opportunities and rights to individuals on the basis of their sex.

- **Gender bias** refers to unequal treatment of persons in relation to opportunities, expectations and more based on their sex.

- **Gender based violence** is violence derived from gender norms and roles as well as from unequal power relations between women and men. Violence is specifically targeted against a person because of his

or her gender, and it affects women disproportionately. It includes, but is not limited to, physical, sexual and psychological harm (including intimidation, suffering, coercion and/or deprivation of liberty within the family or within the general community).

- **Sexual harassment** is the unwanted conduct of a sexual nature affecting the safety or dignity of women, men, boys or girls, including the conduct of superiors and peers. In addition to a forced sexual act, sexual harassment includes abusive language and gestures, sexual advances, touching and groping, passing unwanted notes, and character assassination through graffiti or gossip.

- **Gender roles are** defined as the social roles that a person is expected to fulfill based on his or her gender. These vary among different societies and cultures, classes, ages and during different periods in history. Gender specific roles and responsibilities are often conditioned by household structure, access to resources, specific impacts of the global economy, and other locally relevant factors such as ecological conditions.

- **Social construction** is a process through which a given community assigns, institutionalizes and legitimizes gender roles and relations.

- **Gender empowerment** refers to the expansion of people's capacity to make and act upon decisions (agency) and to transform those decisions into desired outcomes, affecting all aspects of their lives. It entails overcoming socio-economic and other gender inequalities in a context where this ability was previously denied.

- **Gender-transformative** is where both men and women are helped as more gender-equitable relationships are promoted. A transformative approach identifies ways of engaging men and women to examine, question and change institutions and norms that perpetuate inequalities.

- **Patriarchy** literally means rule by the male head of a social unit (for example, a family or tribe). The patriarch, typically a societal elder, has legitimate power over others in the social unit, including other (especially younger) men, all women and children.

- **Femininity** refers to a set of attributes, behaviours and roles generally associated with girls and women. **Stereotypical characteristics**: emotional, dependent, sensitive, passive and nurturing.

- **Masculinity** refers to possessing qualities or characteristics considered typical of or appropriate to a man. **Stereotypical characteristics**: strong, unemotional, competitive, aggressive and self-confident. Masculinity can be practiced by either men or women. Men/boys engagement refers to a programmatic approach that involves men and boys as clients and beneficiaries, partners and agents of change in actively promoting gender equality and women's empowerment.

- **Gender construction** is socialization processes that start from birth through which gender is constructed.

- **Gender socialization** is the process by which society's roles, values and norms, including those pertaining to gender, are taught and learned.

It is a lifelong changing process and often an unconscious process where expectations are reinforced with rewards and punishments (for example, boys or girls may receive negative sanctions for not following 'gender-appropriate behaviour').

Application Activity 12.1

- Define key concepts related to gender.
- Explain how these concepts can have an impact on classroom environment.

12.2. Factors influencing gender inequalities

Activity 12.2

Reflect on this scenario and answer the questions.

Aline misbehaved in class. Her teacher made her always come to the front of the class and caned her. He made an example out of her, telling other pupils that nothing good comes from women.

Questions:
- Which kind of attitude is manifested by the teacher in this story?
- t Explain how the teacher's attitude affect Aline and all girl learners in this classroom?

The following are some of the factors that may prevent girls to go to schools and hence, are a base to gender inequalities.

- **Patriarchal attitudes**: define girls' destiny in terms of marriage and family, so that their parents see little value in educating them. Even if they are sent to school for a few years, early marriage and pregnancy force them to drop out before completion.

- **Gilrs'contribution to the family economy** in terms of unpaid work, both inside and outside the home is another reason for parents to keep them at home or pull them out of school, especially in times of economic stress. If they go to school, they have to make up their quota of work before and afterwards, as a result of which they may be too exhausted to learn.

- **Distance and physical infrastructure** raise concerns about safety and 'honour'. Parents are reluctant to send their daughters to schools outside the village or far from home, especially in situations of conflict. Unsafe school buildings and the absence of amenities such as separate toilets also pose barriers to their education.

- **The school environment** may expose girls to sexual harassment and abuse by boy students and male teachers. In such cases, the presence of women teachers can help convince parents that schools are safe places for their daughters.

- **The content and process of education** are often dull and irrelevant to real life. Textbooks reinforce gender stereotypes by casting women in subordinate roles. Methods of teaching are often gender biased, with boys getting more attention and affirmation from teachers than girls.

- **Poverty and the rising cost of schooling** are major reason why many girls are not in school. Cuts in the education budget in many countries have resulted in higher school fees and additional charges for school maintenance which poorer families find difficult to bear. Discontinuance of incentives such as free textbooks and school meals adds to the cost of schooling. In such situations, poor families tend to keep their daughters home to contribute to the family economy and use their scarce resources to educate their sons.

- **HIV/AIDS** has become a major barrier to girls' participation in education. In countries affected by the pandemic, girls are forced to drop out of school, earn a living and take care of families where most of the adults are either ill or dead.

- **Teen pregnancy** is a very common issue and girls many times are forced to drop out of school when they get pregnant either because they are kicked out or simply because they don't have support to care for the baby once it is born (Swainson, 1995).

Some countries show a reverse gender gap with fewer boys than girls in school. This occurs when mistaken notions about masculinity drive boys to the streets at an early age, or because they are sent to work by their families as they can earn more than girls, or because they think education is irrelevant, or because they turn to criminal activity. Although uncommon, this is a serious gender issue that must be addressed through focused strategies (Mlama , 2005).

Application Activity 12.2

With a focus to Rwandan society, explain some of the factors that hinder gender equity in family, community and school settings?

12.3. Impact of gender stereotypes in educational success

Activity 12.3

Read these statements as they are written below . Do you agree or disagree?
- Boys are stronger than girls.
- Girls should do what boys tell them to do.
- Girls can't do Math.
- Girls are more emotional than boys.
- Caring for children is a girl's job.
- Girls want to get married more than boys.
- Sports are more important to boys than girls.
- Boys need to find a good job while girls need to find a good husband.
- A boy who likes cooking and looking after children is not a real boy.
- Girls are better at sweeping and cleaning than boys.

As explained above, gender stereotypes are ideas that people have on masculinity and femininity: what men and women of all generations should be like and are capable of doing (e.g., girls should be obedient, are allowed to cry, and boys are expected to be brave and not cry, women are better housekeepers and men are better with machines, or boys are better at mathematics and girls are more suited to nursing) (Mlama, 2005).

The following are examples of gender stereotypes and gender related problems and their impacts on boys' and girls' education. :

- **Role models**

  Stereotype: Textbooks and learning aids typically depict male heroes.

  Impact: This reinforces the notion that boys are superior and that girls must confine themselves to subordinacy.

- **Activities and careers**

  Stereotype: Some textbooks depict boys/ men as engaging in physical activities (carrying heavy objects, chopping wood, ploughing fields). They are portrayed as policemen, doctors and engineers. Girls/ women are invariably shown engaging in housework (cleaning, cooking, washing) and becoming nurses and teachers.

  Impact: Boys are encouraged to aspire to the higher status and better paying jobs that are acquired by prioritizing education. The nurturing, caregiving and homemaking role of girls is constantly reinforced, as a result of which they do not see their role in public life and nation-building.

- **School and classroom tasks**

  Stereotype: Boys and girls may unknowingly be treated differently. The school monitors are usually boys; class representativeness tend to have more boys than girls. Housekeeping tasks (cleaning classrooms, washing midday meal utensils) are relegated to girls while tasks that involve the use of tools (ringing the bell, operating the television and LCD) are assigned to boys.

  Impact: Boys are encouraged to be assertive, take control of tools and technology, and demonstrate leadership. Relegating housekeeping tasks to girls reinforces their domestic role.

- **Teacher expectations**

  Stereotype: Teachers reinforce stereotypical gender roles in their differing expectations of boys and girls. For example, boys who do not do their homework are asked if they will 'stay at home like a girl' to humiliate them.

  Impact: The superiority of boys over girls and the importance of education for boys are constantly emphasized.

- **Learning environment**

  Stereotype: Teachers may foster learning environments in which boys are encouraged to succeed while girls are allowed to fail. Boys may be praised and rewarded more often than girls. Similarly, harsher punishment may be meted out to boys than girls to 'toughen' them up. Girls may be criticized more often for giving a wrong answer. Boys may be called to answer questions more often than girls.

  Impact: Boys are continually reminded that they must do well in their studies to be able to fulfill their role as income earners. Absenteeism among girls is not taken seriously. As a result, both boys and girls come to believe that education is relevant only for boys.

- **Physical segregation in the classroom** (Susan.et.al, 2007)

  Stereotype: Girls and boys should not mingle after a certain age.

  Impact: Girls and boys are seated separately in the classroom. Disruptive boys are made to sit with the girls. Physical segregation and the absence of sex education in the curriculum lead to unhealthy attitudes towards sexuality among young children. Consequently, they grow up believing that normal interaction, such as sitting together and talking with each other, is taboo. Making unruly boys sit with the girls reinforces the idea that girls are somehow inferior and to sit with them is shameful.

- **Essential facilities**

  Stereotype: Even when schools do have toilets, they usually lack soap, water, sanitary napkins, dustbins and an area where girls having their period can rest.

  Impact: The lack of these basic facilities is commonly cited as a reason for the high drop-out rate among adolescent girls.

- **Games and sports**

  Stereotype: Girls tend to be denied or restricted in their access to play and sports because they are expected to be ladylike and demure.

  Impact: This is detrimental to the healthy development of girls as it discourages them from indulging in enjoyable physical activities that promote health, fitness, team spirit and healthy competition.

- **School management and operations**

  Stereotype: When the headmistress is a woman, male teachers may attend meetings and speak at the SDMC (Meaning in full?) on her behalf. The cleaners are always women.

  Impact: This reinforces the message that women should be docile, are better suited to housekeeping activities and should play a subordinate role while men take the lead role.

- **Response to harassment**

  Stereotype: In more extreme cases, teachers may indulge in or ignore sexual harassment of girl students by other students or teachers.

  Impact: Since the system encourages boys to believe that they are superior to girls, many find it difficult to accept that a girl can thrive academically. This may result in harassing girls whom they view as threats to their masculinity.

Application Activity 12.3

After learning this lesson; propose strategies to work against gender stereotypes in the classroom.

12.4. Gender socialization process (ECLPE)

Gender socialization is the process through which children learn about the social expectations, attitudes and behaviours associated with one's gender. Gender socialization begins at birth, intensifies during adolescence and contributes to gender inequalities in education, employment, income, empowerment, and other significant outcomes of well-being during adolescence and later in life. As children attain a sense of their own gender identity (i. e., knowing whether they are a girl or a boy), they pay heightened attention to information related to gender, and especially to same-gender models. This gender awareness, in combination with an early exposure to gender from multiple sources of socialization such as parents, siblings and peers, has immediate consequences on children's attitudes and behaviours toward members of their own and other-gender group. For example, children may favour their own gender in their attitudes (having more positive feelings towards own-group members) and

show gender discriminatory behaviours (preferring to interact with members of their own gender only) (Mlama, 2005).

Gender is one of the first social categories children become aware of. By the time they are three years old, they have formed their gender identity. They also begin to learn cultural gender stereotypes: that certain behaviours, activities, toys and interests are typical for boys and girls. Although children play an active role in shaping their gender identity development, their knowledge about gender comes from many **sources of socialization**, including parents, peers and teachers.

- **Parents** provide children with their first lessons about gender. Although gender-egalitarian attitudes have increased in many cultures over the past decades, parents and especially fathers typically have different expectations for their sons and daughters with regard to personality traits, abilities and activities. Parents' roles inside and outside the family also influence children's conception of gender roles. Children who are exposed to father's child care involvement may be less likely to endorse gender stereotypes. In addition, father's participation in domestic duties and/or child care is associated with a lower likelihood of violence toward children. Finally, parents reinforce gender stereotypes when they provide their sons and daughters with different toys, or when they describe general patterns about each gender (e.g., "girls like dolls while boys like football").

- **Peer** interactions are another important way in which children learn about gender. During early childhood, children prefer to play with peers who share similar interests or who they believe share those interests, and thus are more likely to be socialized by their same gender peers. While spending time with their friends, boys and girls learn what is appropriate for one gender or the other. This gender socialization can be direct or indirect. For example, children learn about gender stereotypes through their peers' direct comments (e.g., "long hair is for girls while short hair is for boys") and/or negative reactions when failing to conform to their gender expectations. Likewise, children learn and adopt gender-stereotypical behaviours (boy-typical versus girl-typical behaviours) as they spend more time interacting with members of their own gender.

- **Teachers** are another source of gender socialization. Similar to parents, teachers have gender expectations, model gender roles, and reinforce gender-stereotypical behaviours in their classrooms. For example, educators may reinforce gender stereotypes by labelling and organizing students in group activities or by creating different activity centres for

boys and girls. This gender segregation in turn highlights gender as a social category and reinforces children's gender stereotypes and avoidance of cross-gender playmates.

Although it is clear that parents, peers and teachers socialize children to think and act in gendered ways, boys' and girls' development is also influenced by biological factors, such as sex hormones, which influences children's preferences for activities. As such, gender's development might be best described as resulting from the interaction between gender socialization and biological factors (Mlama, 2005).

12.4.1. Examples of gender socialization in many societies

There are many examples in many societies that show how gender socialization is reinforced in different cultures by the "agents of socialization", who in turn are influenced by factors such as the socio-economic conditions of a country, gendered and political structures, social and cultural norms, the global media, and their own local communities and networks. Here are some examples:

- Dressing male and female children in different colours: pink for girls and blue for boys Giving young children different toys to play with (e.g. cars for boys, dolls for girls.

- Commenting on the appearance of little girls ("You are so pretty; "What a nice dress you have") and pointing out the activities and abilities of boys ("You run so fast"; "You are so strong").

- Expecting girls to be "useful around the house" while expecting boys to be "wilder", climbing trees and being active.

- Believing that "boys don't cry", while it is acceptable for girls to do so.

- Focusing on a girl's appearance and making known the expectations they have for her as a daughter and later on a wife ("She looks like her mother, she has good hair, a light colour and good nose... when she grows up, she will help her mother and take care of her siblings"). Boys also attract comments about their appearance, but typically these focus on their ability to defend the clan and provide for the family ("He looks stronger! He will defend his family and kinship").

12.4.2. What should be done to promote positive gender socialization

The best way adults can help support children's gender development is by:

- Exposing them to various types of feminine and masculine toys and activities and to counter-stereotypic models (ex. policewomen, male nurses / encouraging daughters to ride bikes and sons to go to dance lessons).

- Creating play environments well suited for either boys or girls.

- Avoiding gender-stereotyped comments and by challenging children's biases and gender stereotypes.

- Making sure children have plenty of opportunities to interact with and learn from boys and girls through mixed-gender activities.

- Letting young children explore other roles.

- Promoting gender-neutral clothing (e.g. black and white with prints), and activities.

- Being a living example and modeling non-traditional behavior (and exposing children to other role models).

Such approaches provide their children with less traditional concepts and less divisions between what it means to be a boy and a girl.
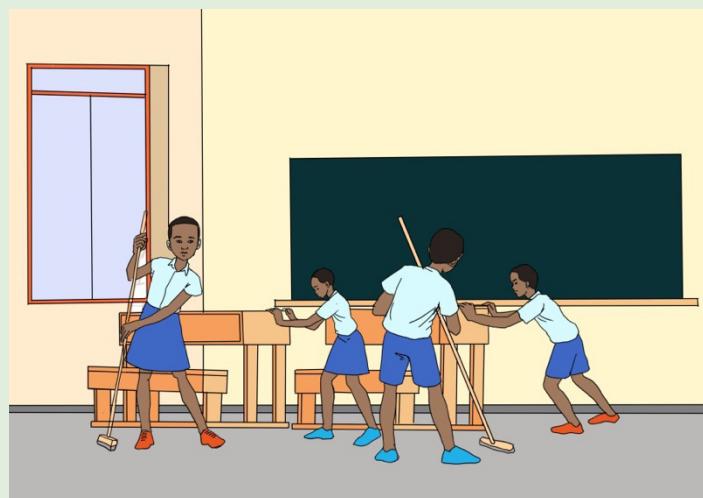
Application Activity 12.4

After this lesson;

1. Which gender bias is likely to be used in teacher-student interactions in your school/classroom?

2. What should be done to reduce gender bias and promote positive gender socialization?

12.5. Gender-responsive pedagogy

Observe this picture and answer to question bellow

- What is the impact of working together (girls and boys, men and women)?
- In your school, identify activities that involve both contribution of girls and boys.

A gender responsive school is one in which the academic, social and physical environment and its surrounding community take into account the specific needs of both girls and boys. This implies that the teachers, parents, community leaders and members, and the boys and girls are all aware of and practice gender equality. It also assumes that school management systems, policies and practices recognize and address the gender- or sex-based needs of both girls and boys. In addition, in a gender responsive school, the academic delivery including teaching methodologies, teaching and learning materials, classroom interaction, and management of academic processes, is gender responsive. The students, both girls and boys, are empowered to practice gender equality and to protect the democratic and human rights of both genders. The concept extends right to the physical environment in the school – including buildings, furniture and equipment that are also gender friendly (FAWE, 2004).

In order to arrive at such a school, a holistic approach involving various interventions is required. The holistic intervention package can include the following elements:

- Undertaking gender **sensitization of parents, community leaders and members**, teachers, girls and boys in order to raise their awareness and understanding of the need to support girls' education.

- **Training teachers** in the skills for making teaching and learning processes responsive to the specific needs of girls and boys.

- **Empowering girls with skills for self-confidence**, assertiveness, speaking out, decision making and negotiation in order for them to overcome gender-based constraints to their education.

- **Empowering boys with skills to de-link from gender oppressive attitudes** and practices such as macho-ism, bullying and sexual affronts and to develop the self-confidence needed to accept gender equality positively.

- Training the school community in the skills necessary to **improve their reproductive health** and protect themselves against sexually transmitted diseases, particularly HIV/AIDS.

- Training the school community to **manage sexual maturation issues of both girls and boys** with particular emphasis on menstruation management.

- Training teachers and students in guidance and counselling skills.

- Establishing **guidance and counselling desks** in order to provide services for the social and psychological development of girls and boys.

- **Providing scholarships and support** to needy girls and boys to ensure that they do not drop out of school.

- Providing **gender responsive infrastructure** including:
    - Boarding facilities in case of long distance from school.
    - Separate and adequate toilets for girls and boys.
    - Adequate and clean water and sanitation, especially to enhance menstruation management and the overall health of the school community.

- Carrying out **activities to promote the participation of girls in science, mathematics and technology** (SMT) subjects.

- Establishing a gender responsive school management system that ensures gender equality in the governance and operation of the school.

- Undertaking **gender training of the school management team**, including the school board, parent–teacher association, heads of departments and prefects, in order to raise their awareness on the need to support girls' education.

- Involving the community and other stakeholders in monitoring and taking action to ensure improved enrolment, attendance and performance of girls.

- **Establishing a database** to track student performance and welfare as well as the levels of gender responsiveness of all aspects of the school.

Gender- inclusive teaching strategies

Gender- inclusive teaching is teaching with content and pedagogy that acknowledges and overcomes gender-based constraints so that both girls and boys can be successful learners.

Teachers can make a difference in students' lives every day. They have a powerful influence on students' success in and outside of the classroom, through the content they teach as well as the expectations they set. When teachers make the decision to learn about and practice gender-inclusive teaching, they are making a commitment to value and nurture the potential of every student, helping to create more prosperous and sustainable communities. Gender-inclusive teaching proactively addresses challenges that both girls and boys may face in receiving an excellent education.

Creating a **gender-friendly learning environment** applies to all grades and all subjects. Gender-friendly learning should not just happen in a specific course subject or after-school club; rather, it is a style of teaching that should be applied in a variety of settings. Math, Science, Social Studies, Language, Technology, Art, and many more subjects can all be taught in a gender-friendly environment (MINEDUC, 2017).

Several actions to strengthen gender responsive pedagogy are proposed in the table below.

Element	Suggested actions
Classroom set-up	- Make a seating arrangement that mixes girls and boys. - Arrange the desks in a way that encourages girls to speak out and overcome their shyness. - Have appropriate size, shape and weight of desks and chairs (i.e. easy to get out of in a skirt). - Put visual aids on the walls that send positive gender responsive messages.
Teaching methods	- Survey students on their views on gender-related issues. - Design group work with equal numbers of girls and boys. - Use small group activities or pair work. Boys and girls who are hesitant to speak in front of the full class are often willing to contribute to smaller groups of classmates. - Give specific tasks and instructions so each learner has a role in the group. - Talk about boys' and girls' rights in the classroom, so that both genders understand they have the same rights. - Design team-building exercises to build confidence. - Allow for inquiry-based learning, individual choice and accommodation of pupils' interests. - Make learning relevant to real-life contexts. - Do not discriminate when selecting which pupil should participate in certain activities. - Use a variety of engaging techniques such as role-play, debates, case studies, explorations, practicals, and experiments that will encourage participation from all students. - Monitor participation of students carefully to make sure that all are given a chance and that the dominant students don't sideline more quiet ones.

Teacher Language & Interactions	- When citing examples in classroom discussions, be intentional with your gender-based pronoun use. For example, try to use male and female pronouns equally, or use general-neutral pronouns.
	- Establish ground rules for a respectful environment where learners are not subject to harassment or ridicule.
	- Avoid making stereotyped comments ("Boys aren't shy." "Girls can't play football.").
	- Challenge gender stereotypes head-on (e.g. respond to comments that define masculinity and femininity)
	- Deal with sexual harassment as you would any other form of bullying.
	- Tell pupils that they are competent, in-control, and can challenge things and people that hurt them.
	- Promote dialogue, model and act in ways that affirm genuine and multiple possibilities for young boys and girls.
	- Give boys and girls time to formulate questions or responses. The wait time will often seem longer to you than it does to pupils, so be sure to give them enough time to catch up, think through the issue, and put their thoughts into words.
	- Remind girls and boys that questions are welcome, and that the person who asks a question is doing a favor for all the others.
	- Never compare children or judge them by their categories; encourage them to discover and pursue their talents and interests.
	- Look for opportunities for you to interact with individual girls and boys in addition to the interactions that are possible in front of all the other pupils; for example, before and after class, in the transition to group work, or while groups are working.

	- Consider calling on pupils by name (instead of relying on volunteers), but keep in mind that being called on can be both motivating and intimidating. Be sure pupils have had a chance to prepare for answering the question, and that they are given a reasonable amount of time to formulate aresponse. - Provide feedback on the nature and quality of participation you observe during class work to girls and the boys. Let boys and girls know what their participation is adding to the subject of study, and if they need to make changes in their patterns of participation. - Seek feedback from boys and girls on their perceptions. Do girls and boys perceive that they have opportunities to participate, or value ways in which participation contributes to their learning?
Materials	- Review textbook language in terms of questions, examples, and illustrations, to make sure they are girl and boy friendly and NOT reinforcing stereotypes. - Revise or supplement the curriculum to ensure equal representation of females and males. - Assign students to identify a famous person (female for boys and male for girls) and have them write a biography to present in class. The purpose of the assignment is to remind students that success is not based on gender. - Highlight influential females and males who have made distinct contributions to their fields. It is important for girls and boys alike to encounter significant contributions, both current and historical, from men and women. - Pay attention to how resources are distributed, especially if they are limited, to ensure that both boys and girls get a chance to use all materials for experiments, games, research, etc.

School management	- Provide separate and adequate bathrooms for girls and boys.
	- Provide girls with necessary accommodations at school during their menstrual cycle.
	- Provide girls and boys with access to clean drinking water.
	- Enforce anti-bullying policies, including zero tolerance for harassment in the classroom.
	- Encourage students who have to travel a long distance to school to form mixed-gender teams to walk to school together.
	- Create a safe space for girls where they are able to discuss issues that relate to the girl child, such as reproductive issues, life skills, entrepreneurship skills, and leadership skills. The same space should be created for boys.
	- Establish guidance and counselling programs to care for the psychosocial issues affecting boys and girls; ensure there are sufficient male and female teachers or counsellors.
	- Re-admit girls to school after having a baby; and sensitize other students to make sure the environment is friendly to teen-mothers
	- Introduce career guidance: role modelling by female and male professionals such as engineers, doctors, and pilots.
	- Host a career fair with representatives from the community who hold gender-atypical jobs. Follow up after the career fair, planning individual meetings with students to encourage those interested in jobs that counter stereotypes.
	- Encourage the participation of girls in "boys'" sports and create sports clubs (for example, a football club) for them to join
	- Organize a schoolyard clean-up day and challenge students to understand that caring for their physical surroundings and environment is everyone's responsibility and not determined by gender.

After learning this lesson; identify actions, which are supposed to be done in your school/classroom but are not yet done appropriately.

What advice could you give to stakeholders involved in gender responsive teaching related to those actions which are not done appropriately?

12.6. Checklist for monitoring gender responsive schools

Activity 12.6

In previous lessons, we have seen different aspects of learning and teaching process. We have also learned that gender integration must be emphasized in each and every aspect. How will you ensure that your school environment is conducive for gender responsive learning?

Monitoring gender responsive schools should focus on aspects of learning and teaching processes in all subjects to ensure gender integration. In addition, school leaders will ensure that the overall school environment is conducive for gender responsive learning.

For effective monitoring and evaluation, checklists would be developed for each aspect of gender (MINEDUC, 2017).

Indicators	Questions
Teachers' skills in Gender Responsive School	- How many teachers have been trained in Gender Responsive pedagogy? - How many male teachers? - How many female teachers? - Which organization offered the training? - What was the duration of the training? - Where did it take place?

Physical environment	- Is the type of furniture used in the school appropriate for girls and boys? Are laboratory stools too high for girls wearing skirts? Are library shelves too high to access? Are desks too small? - Is there a system for awarding academic and social excellence? How many boys and girls benefited last year? - What is the system for keeping track on the enrolment, retention, dropouts, performance of boys and girls? - What measures have the school put in place to ensure that girls have access to sanitary pads, especially the needy students? - What safety and security measures are in place for students especially at night? For girls and for boys?
Tracking students' performance and welfare	- How many boys and how many girls are in each grade? - How many girls and how many boys repeated a grade last year? - How many boys and girls dropped out last year? - How many girls dropped out due to early marriage, household chores, etc. - What is the performance of the students by gender for every year and for every grade and in national examinations? - How many teenage pregnancies were there in the last academic year? - How many girls were made pregnant by teachers, students, community members in the last academic year?

	- How many incidences of gender-based violence (sexual harassment, rape) were there in the school in the last academic year? Committed by teachers? Students? Community members? - How many cases of bullying were reported in the school in the last academic year? - How many HIV/AIDs infected students are there in the school? How many boys? How many girls?
Tracking of teachers' performance and welfare	- Does the school have a database for tracking teachers' performance and welfare? - How many male and how many female teachers are there in the school? - How many male and female teachers does the school have for each subject? - What type of qualification do these teachers have by gender? (certificate, diploma, degree) - How many teachers' accommodations are there? How many are occupied by male and by female teachers?
Non-teaching staff	- How many male and how many female non-teaching staff are there in the school? - How many non-teaching staff have been trained in gender issues?
Gender-responsive lesson plan	- How many teachers are producing gender-responsive lesson plans? - How many teachers are using gender-responsive lesson plans? - Provide samples of gender-responsive lesson plans in different subjects.

Gender-responsive lesson delivery	- What types of gender-responsive teaching methodologies do teachers use? - What techniques do teachers use to ensure that both boys and girls participate equally in the lesson? - What techniques do teachers use to encourage girls to speak out? - What techniques do teachers use to know if the students have understood the lesson?
Gender-responsive language use	- Are the teachers aware of what kind of gender-insensitive language is used in the classroom? - Is abusive language used in the classroom? Who are the perpetrators? Teachers? boys? girls? - Who are the victims of the abusive language used in the classroom? Female/male? - What techniques do teachers use to eliminate such use by themselves and by the students in the class?
Gender-responsive teaching-learning materials	- How does the school ensure that both boys and girls have equal access to textbooks, library facilities, laboratory equipment and other learning materials? - Have the teachers analysed textbooks for all subjects for gender responsiveness? - Are the textbooks used in school free from any gender stereotypes? - If textbooks contain gender stereotypes, what action have teachers taken to deal with gender stereotypes? - What types of gender-responsive teaching aids have teachers produced?

Teaching–learning methods	- What techniques do teachers use to ensure that boys and girls participate equally in all subjects? - What techniques do teachers use to help students overcome fear and inhibition? Fear of speaking, fear of sciences and Maths, fear of practicals, fear of technology, etc. - What techniques do teachers use to adapt learning activities to the level of the learners?
Teacher's feedbacks to students' answers	- How many boys/girls were asked by the teacher in the lesson? - How many boys/girls have received motivation from the teacher during the lesson? - How many boys/girls have been supported by the teacher during the lesson?
Gender-responsive conflict management	- How many cases of gender-based conflicts have been reported during the last 6 months? - Who are the perpetrators of the conflicts? Male teachers? Female teachers? Boys? Girls? - How do teachers handle gender-based conflicts in the classroom? - Have the cases decreased in the past six months? - How many teachers have been trained in handling gender-based conflicts in the classroom? - What techniques do teachers use to avoid inappropriate sexual behaviour towards students?
Teachers' attitudes and behaviour	- How many male teachers have shown negative attitudes towards girls and female teachers? - How many female teachers have shown negative attitudes towards boys and male teachers? - Haw many teachers have exhibited inappropriate behaviour towards students?

Learners' attitudes and behaviour	- How many male students have exhibited negative attitudes towards female students and teachers?
	- How many female students have exhibited negative attitudes towards male students and teachers?
Parents' attitudes and behaviour	- How many parents exhibit negative attitudes towards boys? Girls?
	- How many parents treat boys and girls unequally?
	- How many parents favour boys over girls? Girls over boys?
	- How many parents withdrew girls from school in the last one year? How many withdrew boys from school?
Gender responsive School management	- Does the school have a gender responsive school management system in place?
	- How many men and how many women in each management structures:
	- Head and Deputy
	- SGAC (School General Assembly Committee)
	- Department heads
	- Student council
	- Student clubs' representatives
	- Which of these structures are headed by men and which are headed by women?
	- Has the school management team undergone gender training?
	- How many men are trained?
	- How many women are trained?
	- What was the duration of the training?
	- Which organization offered the training?
	- When did it take place?

	- Give specific rules and regulations that make the school gender-responsive.
	- Is the code of conduct for both students and teachers gender-responsive?
	- Does the code of conduct include how to deal with cases of sexual harassment for both teachers and students? And other deviant behaviour?
	- How does the school protect human rights of the students (dignity, respect, health, nutrition, security, not to be physically violated, etc.)?
	- Is the school aware of national gender-related policies?
	- What gender-related policies does the school have?
	- How is the school implementing these policies?

Application Activity 12.6

After learning this lesson, adapt the Checklist for monitoring gender responsive schools to your school. And suggest how it can be used.

End Unit Assessment

After learning this unit; what is your contribution regarding the teaching and learning environment and interactions with students to ensure both girls and boys are successful?

UNIT 13

ICT INTEGRATION IN EDUCATION

Key unit competence: Use of ICT devices during the teaching and learning process

Introductory Activity

1) Think-pair-share:

   a) Remember your 3 last times you had opportunity to enter in the Computer Lab/smart classroom. What was the purpose?

   b) Do you think that students in 1980 had such opportunities? When and where have you seen the computer for the first time?

2) Basing on the knowledge and skills acquired from the Second part of Teaching Methods and Practice for Science and Elementary Technology that is: ICT component, explain the role of ICT in Teaching and learning process. Give examples to support your ideas.

3) In the Competence-Based Curriculum, ICT was introduced in primary from Primary One. One comment was that it is too early to learn about computer. In this view, ICT and Computer are synonymous. Do you agree or disagree? Explain.

13.1. Introduction to ICT usage in education

Activity 13.1

1) Basing on your prerequisites in ICT from Ordinary Level and Teaching Methods and Practice, complete the KWL chart, in the first column of What you Know (K) about ICT and the column of what you Want (W) to know about ICT. The third column (what you learnt) will be filled at the end of the unit.

2)

K (What you Know)	W (Want to know)	L (Learnt)
-	-	
-	-	
-	-	

Using internet research, try to find the information about what you want to know (W).

13.1.1. Key concepts in ICT in education

ICT: information and communications technology – tools which enable large quantities of information to be shared with concerned people at the same time

Digital: electronic technology that generates, stores, and processes data in terms of two states: positive and non-positive, expressed by numbers 1 (positive) and 0 (non-positive

Internet: a global computer network providing a variety of information and communication facilities, consisting of interconnected networks

Hardware: the machines, wiring, and other physical components of a computer or other electronic system

Software: the programs and other operating information used by a computer

Smart Classrooms: technology enhanced classrooms that foster opportunities for teaching and learning by integrating learning technology, such as computers, specialized software, audience response technology, assistive listening devices, networking, and audio/visual capabilities

Application (App): a software program that runs on a computer or smart phone and has a specific function or "application" for the user.

Application Activity 13.1

a) Differentiate hardware and software.

b) Reference to the definitions and practice in Rwandan schools, is there any difference between "computer laboratory" and "smart classroom"?

13.2. ICT devices and their use in education

1) Visit the Smart classroom/computer lab, the office of the school secretariat and any other room/office where ICT devices are kept. List down the ICT devices found in each room and ask for more information as needed about their use including demonstration. Add on your list other ICT devices you know but that were not found in the visited room. Take notes as you are having explanations from users.

2) Using lower and upper primary syllabus, consider ICT related units and list down ICT devices that are indicated to be taught in primary. What is your conclusion about ICT?

3) Combine the two lists you came up with and classify ICT devices in the following groups:

I am familiar with and able to use it	I need more practice to be able to use it	This is my first time in contact with the device

4) From the list, select ICT devices that can be used in learning/teaching process with clear examples of learning/teaching situations.

Information and Communication Technology (ICT) consists of various tools and systems that can be exploited by capable and creative teachers to improve teaching and learning situations. The table below gives some ICT tools or devices that can be used by teachers together with a summary description for each device and an indication on n how to us it:

Desktops: these mostly used in offices, at schools or at home. They can vary in size and usually consist of a CPU case, a monitor, a mouse, a keyboard and sometimes external speakers. The keyboard has buttons also known as keys with letters and numbers and other functions which help in typing and entering data in the computer.

	Laptops: these are portable computers and can also be used in offices, homes and schools and can be moved easily from class to class, from offices to homes or to field work. They have batteries that allow computers work for more than an hour without being directly connected to the power source. They are general smaller than desktop and most of its components are all in one. For example, the keyboard, the monitor and the mouse are all attached.
	Xo laptop (One laptop per child: OLPC): Less expensive laptops have been designed for use in school on a 1:1 basis with features like lower power consumption, a low-cost operating system, and special re-programming and mesh network functions.
	Tablets: they are more portable than laptops as they are hand portable. They have a touch-sensitive screen used for displaying data, typing and navigating instead of having a monitor, a keyboard and a mouse separate.
	Digital camera: is a camera that encodes images and videos digitally and stores them for later reproduction. Most cameras sold today are digital.

	Mobile phone: Nowadays, the smart phones take important part in the wireless communications. They have many different options typical for bigger devices like laptops, desktops and tablets integrated in them. Using a smart phone the client can easily configure and manage the e-mail correspondence.
	Printers: No computer is complete without a printer. At some point, you're going to want to print photos scan a document. A good, reliable, feature-rich printer can make these tasks simple as well as fun. The two primary types are inkjet and laser. A laser printer produces much sharper prints than an inkjet. Photo printers are inkjets designed specifically for producing high quality pictures. We will take a look at the printing process for both of these types of printers.

	Scanners: Before jumping into the basics of scanning, we first need to make sure your scanner is correctly connected to your computer. So before proceeding, be sure to check your scanner installation manuals, software installation guides, and cable connections for proper working order first. Before proceeding you should know the following information: where your software is located on your computer, where the power switch is for your scanner, and verify that the SCSI cable is connected properly from your computer to your scanner.
	USB flash disk: Insert the USB drive into the computer port. If you plan to use it frequently, insert it into the front port. Make sure you insert it into the correct port - some desktops and laptops have different types of ports available, such as 2.0 and 3.0 ports, which could be hi-speed and non-hi-speed ports.
	Projector: Is an ICT device used to display data in bigger format on big screen. The data displayed is on the computer or any storage device connected to the projector. The data can be in form of text, video or images. There exist portable projectors that can be moved from place to place and there are also overhead projectors fixed in one single room. To data can be displayed on a projector screen or on a white wall for better view.
	Television: is a device used to display data. It has loudspeakers and tuners. However, nowadays televisions have USB ports that can allow displaying data stored on a USB device. If the television does not have these facilities, a DVD or CD player can be used to display data.

	Radio: is a technology of using radio waves to carry information. A radio can be used to broadcast educational programmes of various subject areas. But also, when recorded, a lesson can be given through radio using a USB memory flash, a CD, a DVD or a cassette.

Source: *Adapted from REB (2016): Training manual on the implementation of the Competence-Based Curriculum*

How ICT tools can be used in Teaching and Learning?

ICT Tool	How it is used?
Computers (laptops, desktops, tablets, etc)	Typing, preparing teaching and learning materials, displaying learning content, setting assessment, etc. When connected to internet, it can help in making research, accessing different T/L materials, sharing resources and experience, ...
Projector	Projecting content/information during presentations
Televisions	Watching/listening to information related to a certain topic
Mobile phone	Listening to audio materials, practice literacy skills through SMS/ WhatsApp, sharing information through social media, etc
External memory disks (flash disk, external hard disk, CD/DVD, etc)	Sharing and keeping information about a lesson, a topic in a lesson
Radio	Listening to a lesson recorded or a broadcasting programme. It can be used for developing listening skills and language skills.
Printer	Sharing hard copies of lessons for students when they have no access to computers for revision, printing exams/test, students can print some of their project work, etc

Source: Adapted from REB (2016): Training manual on the implementation of the Competence-Based Curriculum

Student teachers develop a lesson on a topic of their choice using ICT tools and deliver it to the class (micro-teaching) after which the class gives feedback

13.3. Computer games

Activity 13.3

Using XO laptop, select and play one or two computer games and then after answer the following questions:

a) What do you understand by computer games?

b) What have you got from that play you are performing?

c) What is the importance of computer games in the learning process?

What are the disadvantages associated to computer games?

13.3.1. Importance of computer games in learning

The main aim of educational computer games is motivation and fun. Another great benefit of computer game is to develop a positive attitude to learning, ideally from an early age, and especially entertaining way Games allow the teacher to continuously monitor and control students' progress through feedback. Computer games for players can develop cognitive, motor and spatial skills, and help to improve ICT skills. They can be used to learn the fact that the principles of complex problem solving, creativity or can provide practical examples of concepts and rules that would be otherwise difficult to illustrate in the real world.

Despite all these advantages, not all digital games can be used in the educational process. Computer games are based on the assumption that during their playing players have to learn , explore, obtain additional information during the game , remember , and work together to achieve further progress in the game.

So, play can be described as a process of learning and one of the main advantages of computer games is their ability to give gamers an environment where they can make mistakes and eventually, they learn. Such an environment may be particularly suitable for students who are pragmatic and like to experiment.

Computer games are developed for players to have fun, but all the games are way too educational games. The player must be in the game always something to learn to achieve his goals.

Computer games can:

- Develop clear objectives by targeting the intention of winning
- Develop broad experience and practical opportunities that enhance the expertise and constantly provide new challenges to the learner.
- Shape inter-personal and intrapersonal management
- Develop high concentration and patience in children
- Develop motivation and a strong focus on objectives
- Be used for the development of cognitive skills to develop new or existing skills and rules. Games can teach old things in new ways.
- Help for better understanding some of the concepts that would otherwise be perceived as complicated and boring

13.3.2. Disadvantages of computer games in learning

Computer games played using the internet, computer or television in general, can help children learn about spelling, math, reading and other subjects. They may also increase students' interest in school. Even though they're helpful, educational games can have disadvantages, affecting students both mentally and physically. It is best to use educational games as a supplement. Reduce time spent playing these games by having children study or play outside.

- **Mental effects**

Computer games can affect children mentally. For instance, children may want to play until they win or advance in the game. According to studies done at *Newman University College in Birmingham, England*, this determination can cause; low self-esteem or aggressive behavior, especially if children keep losing at the game. Because these games can become so addicting, overuse can cause social isolation and poor social skills. It's important for children to interact with the world around them and spend time with his friends and family.

- **Wasted time**

Computer games can also be a major timewaster, taking away from time that the child could spend studying, being active or participating in social events.

At home, parents should:

- Set rules about gaming such as: finishing the homework or studying before playing any games, including computer game.

- Set time limits for playing educational games, to prevent him from wasting time.

- **Negative behavior**s

If a game requires children to "shoot" at objects or people, it may encourage violence. The child may want to copy some of these behaviors with friends or family members. Before giving your child an educational game, investigate its content. If something within the game is objectionable, you can either prevent your child from playing it, or talk about the game beforehand. Let your child know that it's only fantasy, and that she shouldn't demonstrate these acts in real life.

Application Activity 13.3

Discuss the disadvantages of computer games in learning and suggest preventive strategies

13.4. Benefits, risk challenges of using ICT in teaching and learning

Activity 13.4

Based on your experience as ICT users and your prerequisites from Teaching Methods and practice of ICT component, discuss the benefits of teaching and learning with ICT.
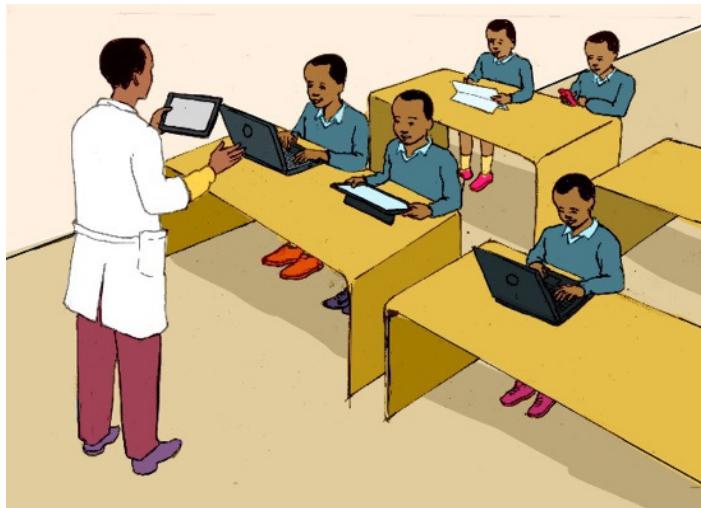
Schools use a diverse set of ICT tools to communicate, create, disseminate, store, and manage information.

Information and Communications Technology (ICT) can also impact student learning when teachers are digitally literate and understand how to integrate it into curriculum. In this way, ICT become integral to the teaching-learning interaction. When teachers are digitally literate and trained to use ICT, the use of ICT in learning and teaching can lead to higher order thinking skills, provide creative and individualized options for students to express their understandings, and leave students better prepared to deal with ongoing technological change in society and the workplace.

Learning using ICT is more than learning through memorization. It allows the learners to experience their learning processes, being interactive, enjoy and have fun with technology.

The sections below explain more benefits of using ICT in teaching and learning process but also some risks and challenges linked to their use.

13.4.1. Benefits of using ICT in teaching and learning process

a) The benefits of using ICT for learners

- **ICT improves engagement**

When technology is integrated into lessons, students are expected to be more interested in the subjects they are studying. Technology provides different opportunities to make learning more fun and enjoyable in terms of teaching same things in new ways. For instance, delivering teaching through gamification, taking students on virtual field trips and using other online learning resources. What is more, technology can encourage a more active participation in the learning process which can be hard to achieve through a traditional lecture environment.

- **ICT improves knowledge retention**

Students who are engaged and interested in things they are studying, are expected to have better knowledge retention. Technology can help to encourage active participation in the classroom which also is a very important factor for increased knowledge retention. Different forms of technology can be used to experiment with and decide what works best for students in terms of retaining their knowledge.

- **ICT encourages individual learning**

No one learns in the same way as another because of different learning styles and different abilities. Technology provides great opportunities for making learning more effective for everyone with different needs. For example, students can learn at their own speed, review difficult concepts or skip ahead if they need to. What is more, technology can provide more opportunities for struggling learners. Access to the Internet gives students access to a broad range of resources to conduct research in different ways, which in turn can increase the engagement.

- **Encourages collaboration**

Students can practice collaboration skills by getting involved in different online activities. For instance, working on different projects by collaborating with others on forums or by sharing documents on their virtual learning environments, Technology can encourage collaboration with students in the same classroom; same school and even with other classrooms around the world.

- **Students can learn useful life skills through technology**

By using technology in the classroom, both teachers and students can develop skills essential for the 21st century. Students can gain the skills they will need to be successful in the future. Modern learning is about collaborating with others, solving complex problems, critical thinking, developing different forms of communication and leadership skills, and improving motivation and productivity. What is more, technology can help develop many practical skills, including creating presentations, learning to differentiate reliable from unreliable sources on the Internet, and writing emails. These are very important skills that can be developed in the classroom.

b) Benefits of using ICT for teachers

With countless online resources, technology can help improve teaching:

- Teachers can use different apps or trusted online resources to enhance the traditional ways of teaching and to keep students more engaged.
- Collaboration and knowledge sharing between teachers: teachers can easily share resources with their colleagues countrywide and worldwide

13.4.2. Risks and challenges of using ICT in education

Even though using ICT offer many benefits in teaching and learning process, there are also some barriers that hinder the effectiveness of the new technology. Here below are some risks and challenges that may discourage or prevent teachers to integrate ICT into the curriculum.

a) Challenges of using ICT in education

These challenges include:

- Schools with limited infrastructure and ICT facilities: lack of electricity, limited ICT equipment, internet connection. Most of ICT devices require electrical power and when there is a power cut, then, some devices cannot be used anymore. Even for those which can store power using batteries, the batteries can go down if the cut stays for long time.

- Lack of effective training for teachers to be familiar with ICT devices. This leads to a lower level of digital literacy in teachers.

- ICT devices are generally expensive to some schools

- Teacher's mindset: If teachers feel there is no need to change their professional practice then, they are unlikely to adopt the use of ICT tools or devices. However, if they perceive ICT to be useful to them, their teaching and their pupils' learning, they are more likely to have a positive attitude to using ICT in the classroom. If teachers feel that using ICT tools is going to take them more time and effort they're likely to decline from using them.

b) Some risks associated to the use of ICT

- Data can be lost when the devices is lost or does not function well.

- When inappropriately used, ICT devices can ruin the learning. It is recommended that educators identify carefully the appropriate devices and when to use them in their teaching subjects

- When safety measures are not taken, ICT may have harmful effects on the holistic child development in early years. The new technologies may displace other important learning and play activities (UNESCO: ICTs in Early Childhood Care and Education, 2012).

- If not controlled, children and young people (adolescents) may be exposed to harmful contents.

13.5. Rwandan ICT in education policy

Learning objective:

To explain the provisions of the ICT in education policy that support the usage of ICT in education

13.5.1. Background and strategic goal of the ICT in Education Policy

Rwanda's Vision 2020 aims at moving Rwanda from 'an agriculture-based economy' to a 'knowledge-based society and middle-income country' by 2020. Education is a key sector to this social and economic transformation as it targets the immense potential of an empowered population. The Vision 2020 places ICT at the heart of the transformation across all sectors including education. The use of ICT in education is a strategic device for achieving this transformation.

Rwanda has therefore developed the ICT in education policy to guide the development, integration and implementation of ICT in the education sector.

Rwanda believes that technology in education is a key driver towards achievement of educational goals that will also address the challenges of access, quality, equity, relevance and management efficiency with tangible and measurable advantages. MINEDUC is developing the concept of 'Smart Classroom'. More importantly, the policy ensures that technology is integrated in all education processes i.e. preparation, delivery of lessons, assessments and research.

In this way, the education sector envisioned that ICT in education would contribute to achieving the Ministry of Education mission i.e. 'to transform the Rwandan citizen into skilled human capital for the socio-economic development

of the country by ensuring equitable access to quality education focusing on combating illiteracy, promotion of science and technology, critical thinking, and positive values'

The strategic goal of the 'ICT in education policy is to further develop access, equity, quality and relevance, as the key principles underpinning Rwanda's ICT and education policies.

13.5.2. ICT in education policy areas and statements

The policy has eleven main policy areas and statements, but this textbook is limited to the following:

- **ICT in formal education**

Improve preparation of the current generation of students for a workplace where ICT tools such as computers, Internet and other related technologies, are becoming ever more present. This will include technological literacy and the ability to use ICTs effectively and efficiently to provide a competitive edge in an increasingly globalized job market.

- **ICT in non-formal education**

ICT provides opportunities for self-learning and distance-learning independently of time or place. Enable citizens to have learning and development opportunities throughout their lives, anywhere—irrespective of age, gender or geographic location—thus supporting the country's aspiration to build a knowledge-based economy.

- **Access and equity**

This policy recognizes ICTs to be a cross-cutting area aimed at equality and equity to all Rwandan citizens.

- **Infrastructure**

Efforts will be made, to provide the needed infrastructure to the remote and underserved areas using technological solutions that are suited to local needs and conditions.

- **Curriculum design, delivery and assessment**

For successfully integrating ICTs in education, curriculum revisions must be continually conducted, along with training on ICTs and ICT-enabled teaching and learning taught as both a subject and pedagogy using learner-centered and interactive methods.

- **Training and Capacity Building**

ICT-enabled training methods will be fully explored, including distance education, e-learning, and blended learning. Pre-service and in-service training will be offered on a continuous basis to enable staff and other stakeholders to keep up to date with technological and pedagogical developments.

Application Activity 13.5

Choose one policy area and comment on actions undertaken to implement the ICT in education policy.

End Unit Assessment

1) Create a scenario that demonstrates risks involved in ICT integration.

2) Debate on the following: "Computer games constitute a good strategy for developing many generic competences".

3) Consider 4 policy areas and statements of your choice and give clear examples that show the progress made throughout the implementation ICT in education.

4) Using primary syllabus, choose and prepare a lesson that integrate ICT. Be ready for a micro-teaching.

5) Complete the table you drawn at the beginning of the unit by filling in, what you learnt in the third column.

K (What you Know)	W (Want to know)	L (Learnt)
-	-	
-	-	

RWANDAN TEACHER TRAINING EDUCATION

Key unit competence: Justify the relevance of the Rwandan teacher training education policies

1. What do you think on the implementation and empowering TTCs here in Rwanda?

2. Describe the teacher that you would like to be?

14.1. Pre-service teacher training education in Rwanda

Activity 14.1

- When a teacher is supposed to start and finish his/her training?

- How do you call the training that student teachers gained at school (TTC)? Differentiate it from one teachers may have along their work.

Pre-service teacher training is initial teacher training courses delivered to student teachers at teacher training colleges or institutions. Pre-service teacher training programmes are recognised and organised by public educational programmes designed to train future teachers to formally enter the profession at a specified level of education. Graduates receive a government recognised teaching qualification.

A strong and effective teaching profession requires well trained teachers. Teachers need not only a depth of knowledge about the developmental stages of students they are teaching but also how to reach those students effectively using age appropriate pedagogy.

The Rwandan education system has been focusing more on primary and secondary education and the need to effectively train pre-school teachers has also been addressed.

In other words, pre-service teacher preparation programmes, also called initial teacher training or initial teacher education, vary greatly across countries. The structure, coursework, and field experiences of pre-service programmes are important to consider when designing or reforming teacher training because they all contribute to the level of preparation. High-quality teachers need high-quality training, but many countries may need to consider cost-effectiveness in deciding on the specific combination of pre-service and in-service training experiences needed in order to deploy enough teachers for growing education systems.

To become a pre-primary or primary school teacher, a person must gain entry into an accredited primary teacher training college (TTC) after successfully completing 9 years of basic education, and initially undertake a 3-year program of teacher training including Teaching Practice.

In Rwanda, the Primary Teacher Education course currently takes three years and student teachers are admitted to specific options from year one. However, they are taught all subjects, except that the weightings vary. This is done to enable student teachers be conversant with all the subjects offered in primary schools as they undertake the Teaching Methods and Practice (TMP) for their specialization in pre-primary, lower primary and upper primary. The options are:

- Early Childhood and Lower Primary Education (ECLPE),
- Social Studies Education (SSE),
- Languages Education (LE),
- Science and Mathematics Education (SME).

The core subjects in year one of the course, for all options are; Foundations of Education, Social Studies, Creative Performance, Physical Education, English, Kinyarwanda, French, Kiswahili, Entrepreneurship, ICT, Teaching Methods and Practice, Special Needs and Inclusive Education and Religious Education. They also participate in Co-curricular activities. The student teachers will have to pass the examinations in all the subjects before proceeding to year two of the course.

Due to the broad exposure in year one of the course the graduating student teacher is qualified to teach any subject in the primary school, though he/she

would have graduated from a specific option. In the second and third years of the course, those in SME will take Physics, Chemistry and Biology, instead of Integrated Science, while those in SSE will take History, Geography and Economics, instead of Social Studies. This will enhance their professional development as teachers and improve the professionalism, thus resulting in quality education, which is envisaged by the Country. This will also enable them to have the relevant combinations required for admission in degree programmes in education at various institutions of higher learning, nationally, regionally and internationally.

Application Activity 14.1

- Explain the reason why Ministry of education decided to implement the programme of pre-service teacher education?

- Explain why year 1 subjects are a bite little different from the ones in year 2&3 especially in SSE and SME

14.2. Skills gained during pre-service teacher training education

Activity 14.2

Discuss the important areas that a pre-service teacher should be trained in.

Being competent and well-performing teacher is one of the most important resources in any educational institution. The teacher is considered as the professional agent and the most directly responsible person in the process of learning; he is the one in charge of making/helping students learn and benefit or suffer from the quality of his teaching. Given this, the teacher and the quality of his teaching are always under discussion and receive prevalent importance in education.

There are four main skills to be gained during pre-service teacher education:

- *General education*: teacher should have skills on general education whereby he/she should have the same understanding on the general education, this mean; he/she should know the general importance of education, this mean the philosophy behind education.

- *Subject-matter preparation:* Teachers' knowledge of the subject(s) they teach is often correlated with their students' achievement scores. It is therefore vital for pre-service teachers to develop deep knowledge of their content area.

  Field experiences such as internships and periods of teaching practice require pre-service teachers to observe and practice teaching in actual classrooms. The quality of field experiences varies greatly and depends on their structure, duration, sequence, and supervision by teacher educators. Research suggests that more experience in classrooms is better, although if only a short field experience is feasible, it may be supplemented by giving more support and guidance to new teachers. In some of the best programmes pre-service teachers spend earlier experiences primarily observing expert teachers and the remainder practicing how to teach.

- *General professional education*: Courses about pedagogy are also vital. These courses are most effective when teacher educators demonstrate and implement varied pedagogical approaches in the courses, rather than merely lecture about pedagogy. In the case of pre-service teachers, professional practice relates directly to the capacity to work with young people in an educational setting. Other important topics to be covered in pre-service teacher preparation include: classroom management, learning issues and special needs, assessment practices, and the use of technology in education. It is also vital for teachers to develop academic content-related fluency in the language of instruction.

- *Specialized professional education in a given subject matter:* a pre-service teacher need to be trained on the ways of innovating and creating the new things but based his/her subject, and how to integrate that subject in the daily life for better making it applicable. It is therefore important for field experiences to occur early and throughout the pre-service training in an integrated manner that compliments other courses.

Application Activity 14.2

Based on the skills to be gained during pre-service teacher training, explain well what will be most focused on during training pre-service teachers.

14.3. TTC leaver exit profile and professional teaching standards

Activity 14.3

1. Brainstorm, what are your competences do you think after completing your academic studies?
2. What are qualities of a good teacher?

14.3.1. The Exit Profile of a Student Teacher (MINEDUC, 2020)

Exit Profile for a student teacher refers to the general learning outcomes a student teacher is expected to exhibit at the end of three years of teacher education. On completion of their training, the student teachers should have the characteristics to become quality teachers who will effectively implement the competence based curriculum and integrate positively into society. The exit profile is further determined by the option a student teacher undertakes for the three years. The profile and corresponding options make it easy to organize teacher training programmes at the university level and training activities.

By the time a student teacher is exiting the college after three years he or she should:

- Be able to compete not only locally but regionally and internationally;
- Exhibit professional ethics and develop an inquiring mind for innovative education;
- Be efficient in education administration, management, and assessment.
- Be competent, reliable, honest and responsible.
- Have competences that enable him/her to explore the learners' abilities and interests
- Be able to develop the child's ability in critical thinking, free expression and ideas
- Have a firm foundation for further education and training.

Exit profile for student teachers per option

The exit profile and the corresponding options make it easier to organize teacher training programs at the university level, implement training activities designed specifically for future teachers, and organize student teacher placements.

a. Early Childhood and Lower Primary option (ECLPE)

Students successfully completing the **Early Childhood and Lower Primary (ECLPE) Option** will be awarded a **"Certificate of Primary Education: Pre-primary and Lower Primary Education".** They are prepared among others for:

- Teaching pre-primary and lower primary classes
- Mentoring in-service peers
- Creating, leading and managing a pre-primary and day care centers
- Being caregiver in day care centers
- Early childhood education advisor at sector level
- Pursuing early childhood and primary education at tertiary level

b. Languages Education option (LE)

Students successfully completing the **Languages Education (LE) Option** will be awarded a **"Certificate of Primary Education: Languages Education".** They are prepared among others for:

- Teaching languages (French, English and Kinyarwanda) in primary education
- Mentoring in-service peers in terms of teaching languages
- Creating, leading and managing a primary school
- Language Education advisor at sector level
- Pursuing languages education and any related subject at tertiary level
- They could be good teacher of Creative Arts and culture

c. Sciences and Mathematics option (SME)

Students successfully completing the **Sciences and Mathematics (SME) Option** will be awarded a **"Certificate of Primary Education: Sciences and Mathematics Education".** They are prepared among others for:

- Teaching sciences, numeracy and mathematics in primary education
- Mentoring in-service peers in terms of teaching Sciences and Mathematics
- Creating, leading and managing a primary school
- Sciences and Mathematics Education advisor at sector level
- Pursuing Sciences and Mathematics Education and any related subjects at tertiary level

- They could be good teachers of Physical Education and Sport

d. Social Studies Education option (SSE)

Students successfully completing the **Social Studies Education (SSE) Option** will be awarded a **"Certificate of Primary Education: Social Studies Education".** They are prepared among others for

- Teaching Social Studies and Religious Education in primary schools
- Mentoring in-service peers in terms of teaching Social Studies
- Creating, leading and managing a primary school
- Social studies Education advisor at sector level
- Managing sport and cultural activities at school and community levels
- Pursuing Social Sciences education and any related subjects at tertiary level

14.3.2. Teaching professional standards (Mineduc, 2020)

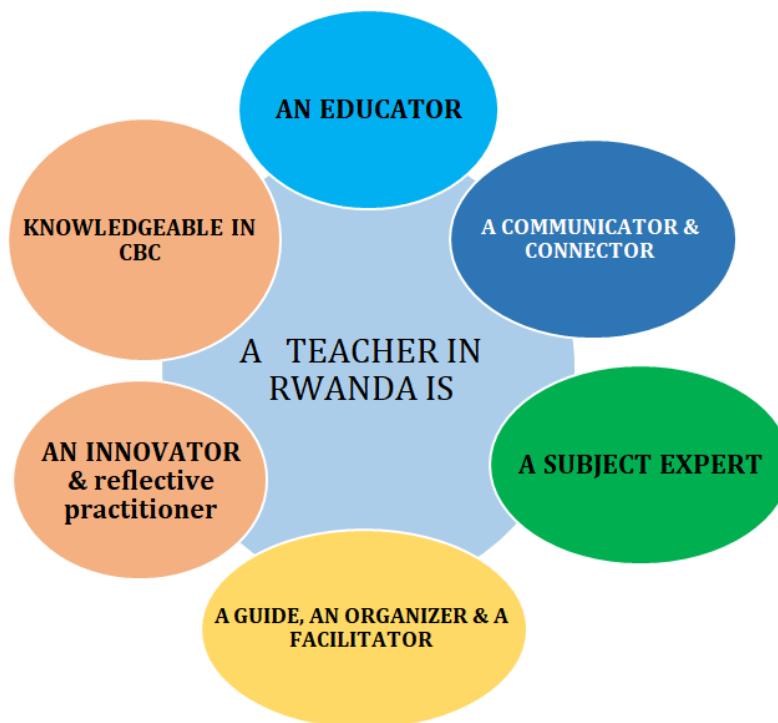A Rwandan teacher should have six quality standards as follows:

Figure 1: **Teaching Standards in Rwanda** *(MINEDUC, 2020)*

- **Standard No.1**: **Teacher as an expert of a competence-based curriculum**

Competence indicators;

The Teacher:

- Has understanding of a competence-based education and how it works,
- Has knowledge of Basic Education Competence-Based Curriculum, core/ basic curriculum competences, competence indicators and generic competences,
- Should demonstrate the ability to develop and integrate the cross-cutting issues within and across subject areas.

- **Standard No. 2**: **Teacher as an educator**

Competence indicators:

The teacher should:

- Use a range of different interventions/methods/techniques for effective classroom teaching and learning management,
- Show a thorough understanding of the child's background, developmental stages, interests, motivations and problems and can adjust his/her actions and the learning environment to the different needs of the learners,
- Use the phases and dynamics of group processes,
- Understand and use major types of special needs and related interventions,
- Master subject content,
- Show concern on promotion of nonviolence; conflict resolution and management, peace-making and peace building ,
- Act as a role model by showing empathy, trust, friendliness and peacefulness,
- Enhance and stimulates cognitive, social-emotional, physical and moral development of the children,
- Apply interventions that contribute to an inclusive, conducive, safe and peaceful learning environment for individual learners and the whole class (including students with special educational needs, males and females, student from different background, etc.),
- Apply interventions that contribute to the social-emotional and moral development of the learners

- Observe and recognize (special) needs of individual learners and the class as a whole,

- Planning activities/experiences referring to the needs and levels of the learner,

- Managing and organize teaching and learning activities and creating appropriate resources,

- Effective and supportive communication with children and their parents,

- Promote problem solving in life situation,

- Use assessment methods that are appropriate for the learner's age,

- Use ICT as a tool in education,

- Demonstrate ethical and moral responsibility including in leadership and management,

- Practice appropriate civic, moral and or religious norms and value,

- Demonstrate respect for the cultural identity, heritage and values of themselves and others.

- **Standard No. 3**: **Teacher as a communicator and connector**

Competence indicators:

The teacher should:

- Use principles of language as well as language transition and subject integrated learning,

- Use a variety of communication skills (listening, writing, speaking, reading) and presentations (volume, articulation and facial expressions) techniques,

- Use the available range of modern means of communication and channels, like internet and e-mail, and their advantages and disadvantages and how to use them,

- Have language proficiency in both mother tongue and language of instruction as well as other official languages, act and communicate in a positive and peaceful way with the learners and create positive interaction with the learners,

- React open-mindedly and respectfully to other views and opinions,

- Show clear, respectful and peaceful communication with colleagues, parents and representatives of the community/society.

- **Standard No 4**: **Teacher as a guide, an organizer and a facilitator of the learning process and learning environment.**

Competence indicators:

The teacher should:

- Use the core principles of special needs education and the most common special needs in Rwanda,
- Advocate for gender balance and equality in solving current gender issues in Rwanda,
- Use appropriately theories of learning to develop learner's competences using a variety of learner-cantered teaching and learning techniques,
- Prepare and use effectively available teaching and learning resources in and around the school,
- Apply a wide range of assessment methods (feedback, formative and summative assessment, etc.) and their purposes for proper learning,
- Abide by school and national education policies, and human values,
- Facilitate and guide the learners' holistic development taking into account the individual differences and (special) educational needs,
- Organize and manage lessons and school activities effectively to maximize instructional time and student learning,
- Collect and analyze assessment data, adjust teaching in response and share the data with colleagues and parents.

- **Standard No. 5**: **Teacher as an innovator and reflective practitioner**

Competence indicators:

The teacher should

- Reflect on the processes and adjust where need be,
- Give tangible and creative feedback on school attachment activities,
- Find information related to the profession and provides solutions,
- Constantly question his/her behaviour and teaching through reflective practice,
- Use small scale reflective practice to contribute to ongoing improvement of the teaching and the school practice,

- Identify, select and use relevant documents (like National Professional Standards for Teachers), new trends and insights related to the profession that help to identify and plan professional learning needs,

- Progress to tertiary education.

- **Standard No. 6**: **Teacher as a subject expert**

a) Teacher as an expert in Early Childhood and Lower Primary Education (ECLPE)

Competence indicators:

The teacher should

- Consider different stages of a young child's development and bring the child to the next stage by a variety of teaching and learning approaches,

- Apply holistic, thematic and play-based learning related to early childhood education,

- Make a connection with the learning areas and educate the learners in all subjects in the language of instruction,

- Appreciate the importance and benefits of play-based learning and thematic approach to facilitate learning,,

- Use a variety of assessment methods for young children to monitor the learning progress,

- Advocate for environmental awareness and teach the children under their care   to be aware of their environment and how to respect it,

- Develop required mathematical skills and concepts into children under their care and make the learning enjoyable to them,

- Encourage appropriately the children under their care to develop sensory ability, physical coordination, fine and gross motor skills as well as good health habits,

- Present acquired creative arts expression skills and make them be appreciated by the children under their care,

- Use language skills in mother tongue and English language so that the children under their care develop early literacy: listening, speaking, reading and writing,

- Think Critically, act creatively and propose solutions to emerging problems,

- Manage and organize teaching and learning activities in corners using and creating appropriate resources for the age group,
- Give a friendly and approachable care to a child, react flexibly and tolerantly to a child's behaviour and stimulate a child's creativity,
- Use play-based learning in effective way,
- Collaborate with parents in order to ensure a joint responsibility for a child's proper development,
- Use assessment methods that are appropriate for the child's age with emphasis on formative assessment,
- Demonstrate a variety of teaching activities that enhance a smooth transition from Kinyarwanda to English as a language of instruction,
- Stimulate Kinyarwanda and English learning in such a way that the children by the end of P3 are able to make the transfer to English as a language of instruction in upper primary,
- Progress to teaching related tertiary education.

b) Teacher as an expert in Language Education (LE)

Competence indicators:

The teacher should

- Express themselves fluently, and with confidence, in speaking and writing using correct vocabulary and grammar appropriate to their level and relevant to their everyday interactions,
- Listen to, read and view, analyze, interpret and summarize a range of literary and non-literary texts in the target language,
- Use teaching/learning methods that enhance the learning of languages,
- Communicate information, ideas and feelings appropriately and effectively in a range of different social settings and cultural context,
- Integrate the official languages to show national consciousness, strong sense of belonging and patriotic spirit,
- Strive for harmonious and cohesive society and working with people from diverse backgrounds: social, cultural, political, linguistic and religious,
- Prepare and deliver coherent speeches on a range of themes for different audiences, purposes and occasions and critically appraise those of others,
- Apply different techniques of language assessment,

- Reflect on the daily teaching-learning processes and practices for continuous professional development,

- Stimulate learners' critical thinking, problem solving, creativity and effective communication,

- Demonstrate a variety of teaching/learning activities that enhance languages,

- Link the content of language with other subjects and connect in real life situation,

- Integrate cross-cutting issues (comprehensive sexuality education, Environment and Sustainability, financial education, Genocide studies, Gender, inclusive education, Peace and Values Education, Standardization Culture) in the teaching/learning of language,

- Contribute to the development of the country through acquisition of financial, vocational and entrepreneurial skills in business development,

- Analyze and evaluate rationally and constructively to resolve problems,

- Demonstrate the knowledge and skills required to progress to the next stage of their education (university).

c) Teacher as an expert in Sciences and Mathematics Education (SME)

Competence indicators:

The teacher should

- Apply mathematical concepts involving geometry, algebraic expressions and measurement of lengths, areas and volumes of different shapes and figures,

- Have a thorough Science and mathematics knowledge that enables him/her to develop the teaching/learning materials, lesson planning, to deliver the lesson and connect with his/her daily life activities using English as the language of instruction,

- Appreciate the importance and benefits of integration play-based learning in his/her teaching/learning Sciences and Mathematics,

- Describe, explain, analyze, interpret and make decision on scientific data,

- Work in systematic way to develop clear, logical, coherent and creative reasoning and imagination in science and mathematics,

- Use assessment methods related to science and mathematics to facilitate learning,

- Plan and Practice experiments of science and mathematics referring to the needs and levels of the learner,

- Manage teaching and learning activities and develop appropriate resources related to science and mathematics,

- Stimulate the learner's critical thinking, problem solving and creativity,

- Stimulate English in the teaching/learning of Sciences and Mathematics by considering the transition from Kinyarwanda to English as medium of Instruction,

- Use appropriate science and mathematics methods/techniques to assess learners and give constructive feedback to the whole class,

- Link the content of science and mathematics with other subjects and connect in real life situation,

- Integrate cross-cutting issues (comprehensive sexuality education, Environment and Sustainability, financial education, Genocide studies, Gender, inclusive education, Peace and Values Education, Standardization Culture) in the teaching/learning of Science and Mathematics,

- Make children aware of themselves physically and biologically within the world we live,

- Reflect positive attitudes towards environmental protection and conservation,

- Develop positive attitudes, practical skills and basic scientific concepts in their daily life,

- Use ICT tools to solve Science and mathematical problems,

- Demonstrate the knowledge and skills required to progress to the next stage of their education (university).

d) Teacher as an expert in Social Studies Education (SSE)

Competence indicators:

The teacher should:

- Demonstrate more abstract and complex thinking to inquire about the world and themselves including how past and present historical, geographical, sociological and cultural events, processes and systems shape our future,

- Show a strong sense of cultural identity and belongingness to society,

- Have a thorough subject knowledge that enables him/her to develop competences embedded in the upper primary social and religious studies curriculum, creative arts curriculum as well as physical education and sport curriculum,

- Express a strong sense of commitment to students, community and the society,

- Demonstrate an understanding of sustainable growth, conservation, reconstruction and development of the country in the regional and global context,

- Evaluate national, social, economic and political issues within the regional and global context and contribute to the national debate,

- Demonstrate ethical and moral responsibility including in leadership and management,

- Practice appropriate civic and moral norms and values of the society,

- Demonstrate respect for the cultural identity, heritage and values of themselves and others,

- Demonstrate curiosity in researching their area of study and creativity in presenting their findings,

- Demonstrate the emotional literacy and life skills required to make responsible decisions and choices especially in relation to personal nutrition, hygiene and fatal diseases including HIV/Aids and Malaria,

- Contribute to the development of the country through acquisition of financial, vocational and entrepreneurial skills in business development,

- Analyze and evaluate rationally and constructively to resolve problems,

- Perform musical, dramatic and sport activities,

- Show national consciousness, strong sense of belonging and patriotic spirit,

- Strive for harmonious and cohesive society and working with people from diverse social, cultural, political, linguistic and religious backgrounds,

- Connect historical events with the current issues,

- Implement social and religious, creative arts and physical education upper primary curriculum content in classroom settings,

- Empower learners with knowledge, skills and attitudes in order to promote the culture of peace, integrity, tolerance, reconciliation at school, community and the society,

- Develop learners' knowledge, skills and attitudes in creative performance and physical education as powerful means of shaping individual personality that is required for community and society sustainability,

- Demonstrate the knowledge and skills required to progress to the next stage of their education (university).

Application Activity 14.3

a. Considering your option, discuss the TTC leaver profile and teaching professional standards in Rwanda.
b. In which way do you think teaching professional standards will improve your achievement?

14.4. In-service training in Rwanda

Activity 14.4

- Discuss the meaning of a "lifelong learner".

- Are teachers concerned by lifelong learning? Explain why? How is it done?

In-service training is teacher training courses delivered to serving teachers at school and/or teacher training colleges or institutions. In-service education is a planned, continuous and lifelong process whereby teachers active in the profession try to develop their personal and professional qualities, and to improve their knowledge, skills and practice, leading to their empowerment, the improvement of their agency and the development of their organization and their pupils. It is called continuous professional development (CPD). CPD is an umbrella term which covers professional learning over a teacher's career, from initial teacher education onwards. Teachers' knowledge and skills improve through experience and with opportunity to reflect on their experience. Teacher learning in most effective if teachers have opportunities, support and resource for CPD (REB, 2018).

There are several ways to encourage CPD (UR-CE, 2019). The most effective and cost efficient ways to help teachers refresh their knowledge and pedagogical practice is to:

- Encourage exchange of information and ideas between the teachers in their own school through community of practices.

- Support new teachers who do not only learn from longer serving teachers but often also increase enthusiasm for teaching as well as transfer up-to-date knowledge and skills in respect to their older colleagues through induction period.

- Meeting colleagues from other schools, in professional learning community. At the same time, sharing ideas, experience and good practice helps raise education system on a higher level as a whole. It prevents the new approaches from remaining isolated to particular teachers or schools which in turn create a better approach to quality education for young people.

- Take part in in-service training courses or workshops. These courses may be short of long term. In addition to the classic CPD, teachers can also take advantage of online materials, courses and teacher communities which are easily accessible and cost efficient.

- Teachers can also do their own reading, research, and self-reflection to develop their skills independently.

- **Continuing Professional Development can take the following forms:**
  - training courses and workshops
  - peer lesson observations and constructive feedback
  - reflection/self-evaluation
  - community of practice
  - shadowing a colleague
  - mentoring
  - peer group exchange (e.g. social media such as Twitter groups, Google groups)
  - team teaching
  - developing and adapting new instructional/ learning materials
  - attending exhibitions and conferences
  - self studies
  - action research

School-based Mentoring Programme (SBMP) to support Continuous professional development (CPD)

The National School-based Mentoring Programme (SBMP) was launched in 2012. Mentors worked in schools to train teachers to improve their English skills and teaching practice. The overall objective was to improve students' learning.

In 2015, REB launched the Competence-Based Curriculum. This required new forms of Continuous Professional Development (known as CPD) for teachers. Continuous Professional Development means; continuously improving our work as teachers by thinking about what we are doing well, and what we need to improve. It means building on our strengths, and improving on our weaknesses.

School-based CPD is needed to make sure that teachers have the skills to teach the CBC. Therefore, REB restructured the SBMP. REB has worked closely with the districts to appoint one mentor per school from among teaching staff.

Mentors now encourage and support all school staff to improve teaching and learning at school. Teachers are directly involved in improving their skills. They are working in groups to share ideas and help each other. The groups are organized according to subject groups, primary level, secondary level, or any other need at the school. Several groups can be active at one time (REB, 2017).

Application Activity 14.4

a. Explain the importance of in-service training in Rwanda
b. identify the key actors in school-based teacher professional development

14.5. Rwandan policies related to pre and primary education

Activity 14.5

Think about these terminologies and brainstorm about them:

a. Education for all
b. Inclusive education

Policy name	Descriptions
ECD Policy (ECLPE)	**Goal**: to ensure all Rwandan children achieve their potential, are healthy, well-nourished and safe. Their families and community also become nurturing caregivers through receiving integrated ECD services. **Vision**: all infants and young children will achieve fully their developmental potential. **Lead ministry**: Ministry of Education in Rwanda.54 Other responsible ministries: Ministry of social welfare and cooperatives, Ministry of Health among others. **Coordinating body**: Policy planning unit. Other partners: NGO's (UNICEF, SAVE THE CHILDREN, UNDP among others.
	Rwandan approaches and perspectives to ECD (E). In Rwanda ECD(E). Is perceived as: - Education provided for children 0-3 years in Day Care Centres. - Education provided in Nursery School - A community-based low cost project for holistic development of the child from 0-6 years - Comprehensive approach policies and programs for children from birth to 8 years, their parents and caregivers. - Institutions for protecting rights of the child to develop his/her holistic potential. **Rwanda advocates for a holistic approach to ECD.** An integrated quality ECD strategic plan is being adopted so as to ensure all Rwandan children are achieving their potential, are healthy, well-nourished and safe (holistically healthy) The following table represents the meaning of a holistic approach

	Emotional needs	Being accorded Love, trust, respect, faith, freedom to express feelings etc.
	Social needs	Being given opportunities to form friendship, to share, to be taught right from wrong etc.
	Mental/cognitive needs	Opportunities for exploration, play, reasoning, analysis, decision making etc.
	Moral needs	Opportunities for acquisition of values, virtues, rules, principals, good from bad etc.
	Moral needs	Opportunities for acquisition of values, virtues, rules, principals, good from bad etc.
	Spiritual needs	Being accorded opportunities to know the creator and creation, religion/belief they belong to, virtues advocated by their religion/belief, love, peace, mercy etc.
	Aesthetic needs	Being accorded opportunities for creativity, imagination, innovation, expressing beauty etc
	Linguistic needs	Being accorded opportunities for building their language either through speaking, listening, reading, writing etc.
	Cultural needs	Opportunities for participating in cultural heritage through oral literature, drama, skit, role play etc.

	The government of Rwanda supports ECD by protecting both mother and child to ensure that the family flourishes-*article 27 of the Rwandan constitution.* Being a signatory of the UNCRC and the African charter, the government of Rwanda perceives childhood as being very important and hence children rights (rights to a name, nationality, education, protection, survival etc) should be observed –article 43 of the constitution of Rwanda.
Girls Education policy	Under the National Gender Policy, the_education and professional training 'policies are: • To ensure that boys and girls have equal access to educational opportunities in a manner that guaranties satisfactory performance and output in all fields of study. • To promote girls 'enrolment in Science and Technology. • To increase the literacy rates of women and men with specific emphasis on women • The National Gender Policy calls on the government to use the following strategies: • Introduce measures that aim at ensuring that gender issues are mainstreamed in the educational system, in the areas of curriculum, policy, and all educational programs. • Introduce measures that aim at enhancing opportunities for boys and girls at all levels of education and in all institutions of higher learning and training. • Introduce special measures to improve girls 'enrolment in the non-traditional fields of study particularly in Science and Technology, to increase their performance. • Introduce measures to promote and enhance vocational skills and functional literacy for women and men taking into consideration gender roles and responsibilities

	The Girls 'Education Policy is in line with other government development programs including the following: - Vision 2020-Education Sector Policy-Economic Development Poverty Reduction Strategy - Rwanda Government 's Seven-year program - The National Decentralization Policy - The National Gender Policy - The National Policy on Orphan Children and Other Vulnerable Children - Law on the Rights and Protection of the Child Against Violence - International Development Goals - Millennium Development Goals - NEPAD
Special needs education policy	Special needs & inclusive education policy is also guided by the 1. Seven Year Government Programme: 2. National Strategy for Transformation (NST1) envisioning economic transformations through a deliberate focus and investment in education of children and youths with Special Educational Needs (SEN). Rwanda's commitment to the education of disadvantaged children is well highlighted in the MINEDUC Education Sector Strategic Plan Framework for basic education (ESSP) 2018/19-2023/24 as a cross-cutting issue, which also resonates with article 40 of the National Constitution of 2003 as revised in 2015 article 20 stating that "Every person has the right to education ... SN & IE Policy lies within the scope of international and national strategies; it refers to the recommendations from International Institutions but also refers to sector strategies, laws and policies in Rwanda.

	International frameworks
	- The Universal Declaration of Human Rights (1948)
	- The Convention on the Rights of the Child (1989)
	- The Jomtien Declaration on Education for ALL (1990)
	- The World Conference on Special Needs Education (1994)
	- The United Nations Standard Rules on the Equalization of Opportunities for PWDs (1994)
	- The Dakar Framework for Action (2000)
	- Sustainable Development Goals (SDGs)
	- Education 2030 Incheon Declaration and Framework for action:
	Towards inclusive & equitable quality education & lifelong learning for all final draft for adoption) National Frameworks
	- The revised Constitution of the Republic of Rwanda (2015) Art 20
	- Seven Year Government Programme: National Strategy for Transformation(NST1) (Priority area no 4, 62)
	- Education Sector Strategic plan (ESSP) 2018/19 -2023/24
	- Law relating to protection of Disabled Persons in General (2007)
	- Integrated child Right policy of 2011
	- Special needs & Inclusive education policy2007 (revised in 2018)
	- Education Sector Policy (2003)
	- Ministerial order determining modalities of equal opportunities for PWDs in schools. (No007/2016 on 01/03/2016)

	The Special Needs and Inclusive Education (SN&IE) Policy intends to provide quality education to all learners who may, for any reason have temporary or permanent needs for adjusted educational services. It will be achieved by mitigating all factors that constitute barriers to the learners' participation in learning and development, arising from both the individual learners (e.g. disabilities) and from the schooling environment
Education Sector Strategic Plan 2018/19 TO 2023/24	This ESSP is to ensure Rwandan citizens have sufficient and appropriate skills, competences, knowledge and attitudes to drive the continued social and economic transformation of the country and to be competitive in the global market. The ESSP is structured around nine strategic priorities: 1. Enhanced quality of learning outcomes that are relevant to Rwanda's social and economic development. 2. Strengthened Continuous Professional Development and Management of teachers across all levels of education in Rwanda. 3. Strengthened Science, Technology, Engineering and Mathematics (STEM) across all levels of education in Rwanda to increase the relevance of education for urban and rural markets. 4. Enhanced use of Information and Communication Technology (ICT) to transform teaching and learning and support the improvement of quality across all levels of education in Rwanda. 5. Increased access to education programs, especially at Nursery (pre-primary), Primary, secondary, TVET and Higher education levels in Rwanda. 6. Strengthened modern school infrastructure and facilities across all levels of education in Rwanda. 7. Equitable opportunities for all Rwandan children and young people at all levels of education.

	8. More innovative and responsive research and development in relation to community challenges.
	9. Strengthened governance and accountability across all levels of education in Rwanda.
Nine Year Basic Education Policy	The introduction of universal primary education in Rwanda in 2003 led to a remarkable increase in the number of children completing six years of primary from 2008 onwards. This created a heightened demand for secondary education. Meeting this demand was prioritized by the Government of Rwanda. In 2009, a 'fast track' approach was initiated to provide an additional three years of lower secondary so as to achieve nine years of basic education. The objectives of the Nine Year Basic Education programme were:

Ensuring equitable access to nine years of basic education for all children, and providing them with quality education and skills necessary to achieve their full potential and at the same time reducing repetition and drop-out rates.

In 2012, with the success of the Nine Year Basic Education programme through consolidating and building upon the gains made over the past three years, the Government of Rwanda took a more ambitious move of extending the programme to 12 years of basic education. The decision was based on a number of positive lessons drawn from the Nine Year Basic Education programme, including:

1. The ownership of the school programme by the communities in the villages, which had increased the communities' involvement in school affairs including school management;

2. The designs, standards and approach used in the programme's school construction which provides a platform to ensure that future infrastructure is durable and sustainable; and |

	3. The government commitment to providing a full cycle (six years) of secondary education ensuring that the programme has ongoing political commitment. All children who completed the nine-year basic cycle from 2011 onwards could look forward to continuing their studies to the full secondary cycle of 12 years and beyond.
School Health Policy 2014-2018	School Health Policy + its Five years Strategic Plan (2014-2018) and the School Health Minimum Package School Health policy includes eight key areas which are : - Health promotion, disease prevention and control - HIV/AIDS and other sexually transmitted infections - Sexual and reproductive health and rights - Environmental health - School Nutrition - Physical education and sports - Gender and GBV (Gender Based Violence) issues - Mental health and related needs This policy shows School Health Minimum Package that serves as a summary of the health policy to highlight minimum requirements for the welfare of every school.
ICT in education policy	The Vision 2020 places ICTs at the heart of the transformation across all sectors. The use of ICT in education is seen as a strategic lever for achieving this transformation. This policy complements the overall "SMART RWANDA" Strategy; it implements the SMART EDUCATION policy.

The Vision for ICT in Education is:

"To harness the innovative and cost-effective potential of world-class educational technology tools and resources, for knowledge creation and deepening, to push out the boundaries of education: improve quality, increase access, enhance diversity of learning methods and materials, include new categories of learners, foster both communication and collaboration skills, and build capacity of all those involved in providing education."

Thus, ICT in education will contribute to achieving the Ministry of Education mission "to transform the Rwandan citizen into skilled human capital for the socio-economic development of the country by ensuring equitable access to quality education focusing on combating illiteracy, promotion of science and technology, critical thinking, and positive values" (ESSP, 2013).

Strategic Goals

ICT is an enabling tool and a cost effective solution to improve and increase access to education. ICT must therefore be incorporated in a systemic process, within the context of challenges to be met, strategic issues to be addressed and key result areas to promote with tangible indicators of success.

The overall goal of this ICT in Education policy is to further access, equity, quality and relevance, as the key principles underpinning Rwanda's ICT and education policies. Promoting ICT to provide access to education for all and quality education that is relevant with regard to the labor market is the foundation of this Policy and Strategic Plan at the core of ESSP and ICT in Education Policy. This policy's strategic goal is to encourage programs and projects that will maximize on the benefits of ICT in providing universal access and quality education for all. Proposed solutions are aligned with the strategic objectives in the following section.

	Strategic Objectives
	To achieve successful education transformation, the ICT in education policy calls for the implementation of four strategic objectives.
	1. Develop a competent & relevant ICT professional base to meet industry needs
	2. Increase ICT penetration and usage at all educational levels
	3. Develop Education leadership and teachers' capacity and capability in and through ICT
	4. Enhance teaching, learning & research through ICT integration in HLIs (Higher Learning Institutions).

Application Activity 14.5.2

After learning this lesson, Think about one of your model school and

- Analyze how Rwandan education policies are being implemented;
- Propose solutions to bridge the gaps where some of these policies are not implemented accordingly

End Unit Assessment

1. Describe the Rwandan teacher training education policies and propose solutions to the gaps observed in the implementation process
2. Discuss different roles of teacher in sustainable development of the country as a result

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